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# Bowdoin <br> 2013-2014 CATALOGUE 



August 2013
Brunswick, Maine bowdoin.edu/catalogue

Bowdoin College complies with applicable provisions of federal and state laws that probibit discrimination in employment, admission, or access to its educational or extracurricular programs, activities, or facilities based on race, color, ethnicity, national origin, religion, sex, sexual orientation, gender identity and/ or expression, age, marital status, place of birth, veteran status, or against qualified individuals with disabilities on the basis of disability.

The information in this publication was accurate at the time of publication. However, Bowdoin College reserves the right to make changes at any time without prior notice to any of the information, including but not limited to course offerings, degree requirements, regulations, policies, procedures, and charges. The College provides the information herein solely for the convenience of the reader, and to the extent permissible by law, expressly disclaims any liability that may otherwise be incurred.

In compliance with the Campus Security Act of 1990, Bowdoin College maintains and provides information about campus safety policies and procedures and crime statistics. A copy of the report is available upon request or by accessing bowdoin.edu/Security/RightToKnow.shtml.

Bowdoin College and the other members of the New England Small College Athletic Conference take strong stands against abusive drinking and its negative side effects. The vast majority of students at these colleges who choose to drink alcohol do so responsibly. Those who abuse alcohol receive a combination of discipline and education. Additionally, all of the member schools expressly probibit hazing.

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## General Information

Bowdoin is an independent, nonsectarian, coeducational, residential, undergraduate, liberal arts college located in Brunswick, Maine, a town of approximately 22,000 situated close to the Maine coast, 25 miles from Portland and about 120 miles from Boston.

Terms and Vacations: The College holds two sessions each year. The dates of the semesters and the vacation periods are indicated in the College Calendar on pages 6-8.

Accreditation: Bowdoin College is accredited by the New England Association of Schools and Colleges.

Enrollment: The student body numbers about 1,775 students ( 50 percent male, 50 percent female; last two classes 51/49 and 49/51 percent); about 230 students study away one or both semesters annually; 93 percent complete the degree within five years.

Faculty: Student/faculty ratio 9:1; the equivalent of 200 full-time faculty in residence, 99 percent with Ph.D. or equivalent; 23 head athletic coaches.

Geographic Distribution of Students: New England, 40.8 percent; Middle Atlantic states, 22.8 percent; Midwest, 7.8 percent; West, 12.2 percent; Southwest, 3.3 percent; South, 7.3 percent; international, 5.6 percent. Forty-seven states, the District of Columbia, Guam, Puerto Rico, and twenty-eight countries are represented. Minority and international enrollment is 35 percent.

Statistics: As of June 2013, 37,914 students have matriculated at Bowdoin College, and 29,711 degrees in academic programs have been awarded. In addition, earned master's degrees have been awarded to 274 postgraduate students. Living alumni/ae include 19,234 graduates, 2,149 non-graduates, 132 honorary degree holders ( 37 alumni/ae, 95 non-alumni/ae), 24 recipients of the Certificate of Honor, and 228 graduates in the specific postgraduate program.

Offices and Office Hours: The Admissions Office is located in Burton-Little House. The offices of the President and Dean for Academic Affairs are located in Hawthorne-Longfellow Hall, the west end of Hawthorne-Longfellow Library. The Treasurer's Office is located in Ham House on Bath Road. Business offices and the Human Resources Office are in the McLellan Building at 85 Union Street. The Development and Alumni Relations offices are located at 83 and 85 Federal Street and in Copeland House. The offices of the Registrar, the Dean of Student Affairs, and Bowdoin Career Planning are in the Moulton Union. The Counseling Service is at 32 College Street. The Department of Facilities Management and the Office of Safety and Security are in Rhodes Hall.

In general, the administrative offices of the College are open from 8:30 a.m. to 5:00 p.m., Monday through Friday.

Telephone Switchboard: Bowdoin College uses an automated call processing system on its main number, 207-725-3000. A live operator can be reached 24 hours a day, seven days a week, by pressing " 0 ." Further information about telephone numbers can be found at bowdoin.edu/directory/.

Bowdoin College Website: bowdoin.edu. The online Bowdoin College Catalogue can be found at bowdoin.edu/catalogue/.

## College Calendar

## 212th Academic Year

## 2013

August 27, Tuesday
August 28- 31, Wed.-Sat.
Aug. 31-Sept. 4, Sat.-Wed.
September 2, Monday
September 3, Tuesday

September 4, Wednesday
September 4-6, Wed.-Fri.

September 5, Thursday
September 13-14, Fri.-Sat.

September 19-21, Thurs.-Sat.

September 28, Saturday
October 10-12, Thurs.-Sat.
October 11, Friday

October 11-13, Fri.-Sun.
October 16, Wednesday
October 25, Friday
October 25-27, Fri.-Sun.
November 27, Wednesday

December 2, Monday
December 11, Wednesday
December 12-15, Thurs.- Sun.
December 16-21, Mon.-Sat.
December 22, Sunday
December 24, Tuesday

December 25, Wednesday

December 31, Tuesday

First-Year Arrival Day
Orientation Trips
Orientation
Labor Day (College holiday, many offices closed)
College housing ready for occupancy for upperclass students, 8:00 a.m.
Opening of the College-Convocation, 3:30 p.m.
Rosh Hashanah, begins at sunset on Sept. 4 and concludes at sunset on Sept. 6
Fall semester classes begin, 8:00 a.m.
Yom Kippur, begins at sunset on Sept. 13 and concludes at sunset on Sept. 14
Alumni Council, Alumni Fund Directors and BASIC
National Advisory Board meetings
Common Good Day
Meetings of the Board of Trustees
Fall vacation begins after last class; note: Columbus Day is
Monday, Oct. 14
Homecoming Weekend
Fall vacation ends, 8:00 a.m.
Sarah and James Bowdoin Day
Family Weekend
Thanksgiving vacation begins, 8:00 a.m.* (November 27-29:
College holidays, many offices closed)
Thanksgiving vacation ends, 8:00 a.m.
Last day of classes
Reading period
Fall semester examinations
College housing closes for winter break, noon
Christmas Eve Holiday observed (College holiday, many offices closed)
Christmas Holiday observed (College holiday, many offices closed)
New Year's Eve Holiday observed (College holiday, many offices closed)

2014

January 1, Wednesday

January 18, Saturday
January 20, Monday

January 20, Monday
February 6-8, Thurs.-Sat.
February 17, Monday

March 7, Friday
March 8, Saturday
March 22, Saturday
March 24, Monday
April 3-5, Thurs.-Sat.

April 14- 22, Mon.-Tues.

April 18, Friday
April 20, Sunday
May 7, Wednesday
May 8-10, Thurs.-Sat.
May 8-11, Thurs.-Sun.
May 12-17, Mon.-Sat.
May 18, Sunday
May 23, Friday
May 24, Saturday
May 24, Saturday
May 26, Monday
May 29 - June 1, Thurs.-Sun.
July 4, Friday

New Year's Day Holiday observed (College Holiday, many offices closed)
College housing available for occupancy, 8:00 a.m.
Martin Luther King Jr. Day (College holiday, some offices closed)
Spring semester classes begin, 8:00 a.m.
Meetings of the Board of Trustees
Presidents' Day, classes in session (College holiday, some offices closed)
Spring vacation begins after last class
College housing closes for spring vacation, noon
College housing available for occupancy, 8:00 a.m.
Spring vacation ends, 8:00 a.m.
Alumni Council, Alumni Fund Directors and BASIC
National Advisory Board meetings
Passover, begins at sunset on April 14 and concludes at sunset on April 22
Good Friday
Easter
Last day of classes; Honors Day
Meetings of the Board of Trustees
Reading period
Spring semester examinations
College housing closes for non-graduating students, noon
Baccalaureate
The 209th Commencement Exercises
College housing closes for graduating students, 6:00 p.m.
Memorial Day (College holiday, many offices closed)
Reunion Weekend
Fourth of July Holiday (College holiday, many offices closed)

Note: Regular class schedules in effect on holidays listed unless otherwise noted. Staff, check with supervisor to determine if office is closed.
*Wednesday, November 27, classes will be rescheduled on a class-by-class basis by the course instructor.

## 2013



| October |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { TUE } \\ 1 \end{gathered}$ | $\begin{gathered} \text { WED } \\ 2 \end{gathered}$ | $\begin{gathered} \text { THU } \\ 3 \end{gathered}$ | $4$ | 5 |
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| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
|  | 28 | 29 | 30 | 31 |  |  |

## November

| SUN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  | 1 | 2 |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |  |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 22 | 23 | 24 | 25 | 26 | 27 | 28 |  |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 | 29 | 30 | 31 |  |  |  |  |  |

## 2014



## The Offer of the College

To be at home in all lands and all ages;
To count Nature a familiar acquaintance, And Art an intimate friend;
To gain a standard for the appreciation of others' work
And the criticism of your own;
To carry the keys of the world's library in your pocket, And feel its resources behind you in whatever task you undertake; To make hosts of friends . . .
Who are to be leaders in all walks of life;
To lose yourself in generous enthusiasms
And cooperate with others for common ends-
This is the offer of the college for the best four years of your life.

Adapted from the original "Offer of the College," published in 1906 as the foreword to The College Man and the College Woman by William DeWitt Hyde, seventh president of Bowdoin College (1885-1917).

# Admission and Finangial Aid 

## Admission to the College

Each year the Admissions Committee at Bowdoin College evaluates applications for admission through its three application programs: Early Decision I, Early Decision II, and Regular Decision. The College strives to attract a diverse, multitalented, intellectually adventurous student body. In selecting the first-year class, the Committee pays close attention to a variety of factors; these include a student's academic achievements, extracurricular involvements, and potential to contribute to the Bowdoin community.

Bowdoin requires all applicants to submit the Common Application and the Bowdoin supplement. The Common Application is available online and provides students a uniform framework to present their credentials.

While no single factor determines a candidate's eligibility for admission, Bowdoin College is, first and foremost, an academic institution. Therefore, an applicant's high school performance and the level of challenge represented by the coursework are of particular concern to the members of the Admissions Committee. Each applicant must make arrangements with the appropriate high school administrator to submit all official high school transcripts. The Admissions Committee strives to understand each student's performance in the proper context and therefore requires high school administrators to submit a Secondary School Report (SSR) and a High School Profile. Doing so enables the Committee to properly interpret the information presented on the transcript(s). Ideally, the profile illuminates individual high school policies regarding issues such as weighting of grades, rank in class, Honors/AP/IB course offerings, etc. Comments from school officials on the SSR as well as letters of recommendation from two teachers who have taught the student in an academic core subject (core subjects include English, math, lab sciences, social sciences, and foreign languages) can also help the Admissions Office better understand a prospective student's preparation for Bowdoin. Since 1969, the College has made the submission of standardized testing an optional part of the application. Prospective students may decide whether or not their individual test results will enhance their academic profile and application. Exceptions to the score optional policy include home-schooled students and students who attend high schools that do not issue grades. These applicants are required to submit results from either the ACT or the SAT and two SAT subject tests. The subject tests must include either Math Level 1 or Math Level 2 and a science test.

Because of the residential nature of the College, the strong emphasis on community values, and a core belief in collaboration and the open exchange of ideas both in and beyond the classroom, the Admissions Committee does not limit its assessment to a student's transcript and testing. Students have the opportunity, through the personal statement and the supplement, to reveal the quality and depth of their thinking, their ability to communicate ideas in writing, and how they approach learning and the opportunity to interact with others. Students also detail the activities that have captured their interest, areas of accomplishment and recognition, and how they have focused their energies outside the classroom. When possible, applicants are encouraged to visit the campus for an interview or to meet with an alumni representative. On-campus interviews are available from late May until early December. Students who choose to interview with a Bowdoin alumnus or alumna must submit their requests before December 6, 2013.

All Early Decision and Regular Decision admissions decisions for U.S. citizens and permanent residents are made under a "need blind" policy. Under this policy, an applicant's financial resources are not a factor in determining whether or not the student will be admitted. While Bowdoin is committed to enrolling students from overseas, the College does observe a strict budget when supporting non-residents. Therefore, admission for non-U.S. citizens may take a family's financial resources into consideration. To be eligible for financial assistance, international students must apply for aid when submitting their application for admission. All students who anticipate needing financial aid are required to complete an aid application. See Financial Aid, below, for more details.

More information is available at bowdoin.edu/admissions/.

## Finangial Aid

At Bowdoin, more than 43 percent of enrolled students receive some amount of grant assistance to help pay for college costs. Grant assistance is money that reduces billed charges on a dollar-for-dollar basis and does not require repayment. With the exception of transfer, international, and admitted wait-list students, admission to Bowdoin is "need blind"-that is, admission does not consider a student's economic status. Bowdoin's financial aid meets $100 \%$ of a student's demonstrated need.

Eligibility for Bowdoin grant assistance is "need based," determined through an analysis of income, asset, and other family information submitted on the CSS PROFILE, federal FAFSA, and federal income tax returns. Bowdoin does not offer merit-based scholarships or grants, with the exception of those awarded through the National Merit Scholarship program.

Bowdoin uses a proprietary need analysis system developed over many years and modeled after the College Board's institutional methodology (IM) to determine grant eligibility. State and federal assistance programs use the federal methodology (FM) formula to determine eligibility. As such, awards may vary from college to college, depending on the need analysis methodology employed.

When determining institutional grant eligibility, the College evaluates the family's financial capacity to contribute to college costs. Willingness to contribute does not influence financial aid decisions. Financial aid supplements family resources to enable students from all economic backgrounds to attend Bowdoin.

Bowdoin meets calculated need with student employment funds and grant money from federal, state, and institutional sources. If parents need help paying remaining billed charges, eligible students may elect to borrow from the federal Stafford or Perkins loan programs.

Most Bowdoin students work during the summer and approximately 70 percent work on campus during the academic year to pay for books, supplies, personal expenses, and travel.

In most cases, receipt of private merit scholarships from local sources does not affect Bowdoin grant awards.

Award decisions are determined annually. Awards can increase from year to year because of tuition increases or reduction in income, for example. Awards can also decrease because of higher family income or fewer children attending undergraduate college. Fairness and equitable treatment guide Bowdoin's need analysis practices. Families with similar financial circumstances receive similar levels of grant support.

For more information about Bowdoin's Student Aid program, visit: bowdoin.edu/studentaid/.

## Expenses

## College Charges

Fees for the 2013-2014 academic year are listed below. Travel, books, and personal expenses are not included; the student must budget for such items on his/her own. For planning purposes, students and parents should anticipate that tuition and other charges will increase each year to reflect program changes and other cost increases experienced by the College.

|  | By Semester | Full Year |
| :--- | ---: | ---: |
| Tuition* | $\$ 22,502$ | $\$ 45,004$ |
| Housing | 2,895 | 5,790 |
| Board (19-meal plan) | 3,299 | 6,598 |
| Student Activities Fee* | 221 | 442 |
| Class Dues*: |  |  |
| Seniors | 30 | 60 |
| $\quad$ Other classes | 15 | 30 |

Health Insurance (See Health Care section, page 13.)

* Required fees for all students.

Off-Campus Study Fee
The College assesses a fee for participation in off-campus study programs for which Bowdoin degree credit is desired. The fee for 2013-2014 is $\$ 1,000$ per program.

## Registration and Enrollment

All continuing students are required to register for courses during registration "rounds" held during the prior semester in accordance with the schedules posted at the College. Any student who initially registers after the first week of classes must pay a $\$ 20$ late fee. All students are further required to submit an Enrollment Form by the end of the first week of classes. While registration places students in courses, the Enrollment Form serves to notify the College that the student is on campus and attending classes. A fee of $\$ 20$ is assessed for late submission of the Enrollment Form.

## Refunds

Students leaving the College during the course of a semester are refunded tuition and fees based on the following schedule:

During the first two weeks..................... 80\%
During the third week............................ 60\%
During the fourth week......................... $40 \%$
During the fifth week............................ $20 \%$
Over five weeks..................................... No refund

## Expenses

After adjustments for fixed commitments and applicable overhead expense, refunds for room and board are prorated on a daily basis in accordance with the student's attendance based on the College's calendar. Students who are dismissed from the College within the first five weeks for other than academic or medical reasons are not entitled to refunds. Financial aid awards will be credited in proportion to educational expenses, as stipulated in a student's award letter, but in no case will they exceed total charges to be collected. Title IV funds will be refunded in accordance with federal regulations. Refunds will be made within thirty days of the student's departure.

## Financial Aid

There are opportunities at Bowdoin to receive financial aid in meeting the charge for tuition. Information about scholarships and other financial aid may be found on page 11.

## Room and Board

First-year students and sophomores are guaranteed housing and are required to live on campus. Entering first-year students may indicate their residence preferences online the summer preceding their arrival at Bowdoin. The Associate Director of Housing Operations coordinates housing accommodations for the remaining classes through a lottery system.

Residence hall suites consist of bedroom(s) and a common room and are furnished with essential furniture. College property is not to be removed from the building or from the room in which it belongs; occupants are held responsible for any damage to their rooms or furnishings.

Board charges are the same regardless of whether a student eats at the Moulton Union or Thorne Hall. Students who live in Bowdoin facilities, except apartments and a few other student residences, are required to take a 19 -meal, 14 -meal, or 10 -meal residential board plan. First-year students are required to take the 19-meal plan for their entire first year on campus. Students living in College apartments or off campus may purchase a 9-meal or declining balance board plan or one of the residential plans, if they choose.

## Other College Charges

All damage to the buildings or other property of the College by persons unknown may be assessed equally on all residents of the building in which the damage occurred. The Student Activities Fee is set by the student government, and its expenditure is allocated by the Student Activities Fee Committee.

## Health Care

The facilities of the Peter Buck Center for Health and Fitness and the Counseling Service are available to all students. All students must maintain health insurance coverage while enrolled at Bowdoin. The College offers its own policy for those students who do not carry comparable insurance. The College's policy provides year-round coverage, whether a student is enrolled at Bowdoin or in an approved off-campus study program. The full-year accident and sickness insurance plan costs $\$ 1,544$.

A pamphlet specifying the coverage provided by the student health policy is available from the health center and will be mailed in the summer preceding the policy year. Any costs not covered by the insurance will be charged to the student's account.

## Expenses

## Motor Vehicles

All motor vehicles, including motorcycles and motor scooters, used on campus or owned and/or operated by residents of any College-owned residence, must be registered with the Office of Safety and Security. The registration decals cost $\$ 40$ and are valid for the academic year in which they are purchased. Vehicles must be reregistered each academic year. Students wishing to register a vehicle for a period of time less than one semester must make special arrangements with the Office of Safety and Security. All students maintaining motor vehicles at the College are required to carry adequate liability insurance. The College assumes no responsibility for the security of or damage to vehicles parked on campus. Parking on campus is limited and students will be assigned parking space based on availability. Comprehensive information regarding motor vehicles and campus parking is available at bowdoin.edu/ security/parking/index.shtml and in the Bowdoin College Student Handbook online.

## Payment of College Bills

By registering for courses, a student incurs a legal obligation to pay tuition and fees. This debt may be canceled only if a student officially withdraws from the College before the start of classes. Students' accounts must be current (namely, payment of all outstanding balances, including any past due balances) for semester enrollment and course registration to occur. A student with a past due account will not be permitted to register for courses or to enroll without the written consent of the College. After the first week of classes, students who have not enrolled for any reason are dropped from courses. A student's access to his/her residence hall, meal plan, and the library is deactivated at that time. The student is placed on an involuntary leave of absence for the semester (see Academic Standards and Regulations, pages 21-35). Degrees, diplomas, and transcripts are not available to students with overdue accounts.
Bills for tuition, board, room rent, and fees for the fall and spring semesters are generated and posted online in July and December, respectively. Bills are delivered electronically to students who are enrolled or who are participating in off-campus study programs. E-mail notifications are directed to the student's Bowdoin e-mail account. Payment for each semester is due 30 days from the billing date.

Payment may be made by the semester due date, by installment payment plan over the course of the semester, or by combining the two options. Bowdoin does not have its own in-house payment plan. Students may choose from two outside installment payment plan agencies offered: Sallie Mae's TuitionPay and Tuition Management Systems (TMS). Credit cards are not accepted in payment of college charges.

## A Liberal Education at Bowdoin College

William DeWitt Hyde's "The Offer of the College" (page 9) spelled out a vision of the aspirations of a liberal education appropriate to the early twentieth century. Many elements of it still have currency more than one hundred years later. At the beginning of the twenty-first century, a vastly changed College in a dramatically altered world provides a related but expanded offer-of intellectual challenge and personal growth in the context of an active and engaged learning community closely linked to the social and natural worlds.
A liberal education cultivates the mind and the imagination; encourages seeking after truth, meaning, and beauty; awakens an appreciation of past traditions and present challenges; fosters joy in learning and sharing that learning with others; supports taking the intellectual risks required to explore the unknown, test new ideas, and enter into constructive debate; and builds the foundation for making principled judgments. It hones the capacity for critical and open intellectual inquiry-the interest in asking questions, challenging assumptions, seeking answers, and reaching conclusions supported by logic and evidence. A liberal education rests fundamentally on the free exchange of ideas-on conversation and questioning-that thrives in classrooms, lecture halls, laboratories, studios, dining halls, playing fields, and residence halls. Ultimately, a liberal education promotes independent thinking, individual action, and social responsibility.
Since its opening in 1802, Bowdoin has understood the obligation to direct liberal education toward the common good. In the twenty-first century, that obligation is stronger than ever. The challenge of defining a "common good" and acting on it is highlighted, however, in an interconnected world of widely varied cultures, interests, resources, and power. To prepare students for this complexity, a liberal education must teach about differences across cultures and within societies. At the same time, it should help students understand and respect the values and implications of a shared natural world and human heritage. By doing so, a liberal education will challenge students to appreciate and contend with diversity and the conflicts inherent in differing experiences, perspectives, and values at the same time that they find ways to contribute to the common project of living together in the world.
Although a liberal education is not narrowly vocational, it provides the broadest grounding for finding a vocation by preparing students to be engaged, adaptable, independent, and capable citizens.

A student in a residential liberal arts college is removed from many of the immediate responsibilities of daily adult life, making the four years of education extraordinarily privileged ones. Such an education, however, must engage that world-both contemporary and historical, both local and global. This engagement comes through individual and group research, service learning, volunteer activities, summer internships, off-campus study, and more.

The success of a Bowdoin education is evident in the capacity of graduates to be informed and critically analytic readers of texts, evidence, and conclusions; to be able to construct a logical argument; to communicate in writing and speaking with clarity and self-confidence; to understand the nature of artistic creation and the character of critical aesthetic judgment; to have the capacity to use quantitative and graphical presentations of information critically and confidently; and to access, evaluate, and make effective use of information resources in varied forms and media. These fundamental capacities serve as crucial supports for a commitment to active intellectual inquiry-to taking independent and multifaceted approaches to solving complex problems; knowing how to ask important and fruitful questions and to pursue answers critically and effectively; sharing in the excitement of discovery and creativity; and being passionately committed to a subject of study. Graduates should thus have the ability to engage competing views critically, to make principled judgments that inform their practice, and to work effectively with others as informed citizens committed to constructing a just and sustainable world.

## The Curriculum

Bowdoin offers a course of study leading to the degree of Bachelor of Arts. Bowdoin students must design an education in the context of their own developing goals and aspirations and in relation to the College's vision of a liberal education, its distribution requirements, and the requirements of a major field of study. The College requires students to seek breadth in their education through a set of distribution and division requirements that stimulate students to navigate the curriculum in ways that encourage exploration and broaden students' capacities to view and interpret the world from a variety of perspectives.

To graduate, a student must also complete an approved major. The major program challenges students to develop a deeper understanding and self-assurance as independent and creative contributors to an area of study. Students choose a major, using the departmental or interdisciplinary approaches available at Bowdoin, as a way to engage a discipline in depth.

The College's curriculum introduces students to academic disciplines that bring conceptual and methodological traditions to bear in teaching disciplined inquiry, analysis, argument, and understanding. Throughout their four years, students build intellectual capabilities, selfconfidence as independent thinkers and problem-solvers, and come to know the pleasures of discovering and developing proficiencies in new areas of knowledge. A liberal education founded in both breadth and depth teaches students how to continue learning as the world changes and demands new perspectives, knowledge, and skills.

Designing an education is an education in itself. The most fulfilling liberal arts education cannot be fully planned before the first day of class because such mapping would not permit the many new paths for exploration that students discover as they learn about unfamiliar fields, find exciting questions and ideas, and uncover unanticipated interests and talents. Nor can a challenging education emerge if a student selects courses one by one each semester; a liberal education is much more than the sum of thirty-two credits. Bowdoin College permits a wide set of choices to enable students to broaden their views of the world and of their own talents and interests, and to deepen their knowledge and capacities. Designing an education thus requires self-examination, careful thought, substantial flexibility, some intellectual daring, and the wise counsel of academic advisors.

A vital part of the educational experience takes place in the interaction between students and their academic advisors. Each student is assigned a pre-major academic advisor at the start of the first year. The pre-major academic advising system is intended to help students take full advantage of the first two years at Bowdoin and begin to plan the remaining years. It provides a framework within which a student can work with a faculty member to make informed academic decisions. Such a partnership is particularly important during the period of transition and adjustment that typically takes place during the first year in college. Academic advisors may make recommendations about courses, combinations of courses, or direct students towards other resources of the College. They may also play a role at moments of academic difficulty. The effectiveness of the system depends on the commitment of the student and the advisor. Students must declare their majors in the fourth semester of their college enrollment and afterwards are advised by members of their major departments.

## Agademic Requirements for the Degree

To qualify for the bachelor of arts degree, a student must have:
Successfully passed thirty-two full-credit courses (or the equivalent);
Spent four semesters (successfully passed sixteen credits) in residence, at least two semesters of which have been during the junior and senior years;

By the end of the second semester in college, completed a first-year seminar;
Completed at least one full-credit course (or the equivalent) in each of the following five distribution areas-mathematical, computational, or statistical reasoning; inquiry in the natural sciences; exploring social differences; international perspectives; and visual and performing arts; these should normally be completed by the end of the fourth semester in college;

Completed at least one full-credit course (or the equivalent) in each of the following three divisions of the curriculum-natural science and mathematics, social and behavioral sciences, and humanities (in addition to the required course in the visual and performing arts); and Completed an approved major.

No student will ordinarily be permitted to remain at Bowdoin for more than nine semesters of full-time work.

## Distribution Requirements

Students must take at least one full-credit course (or the equivalent) in each of the following five distribution areas:

Mathematical, Computational, or Statistical Reasoning. These courses enable students to use mathematics and quantitative models and techniques to understand the world around them either by learning the general tools of mathematics and statistics or by applying them in a subject area. (Designated by MCSR following a course number in the course descriptions.)

Inquiry in the Natural Sciences. These courses help students expand their understanding of the natural sciences through practices associated with questioning, measuring, modeling, and explaining the natural world. (Designated by INS following a course number in the course descriptions.)

Exploring Social Differences. These courses develop awareness and critical understanding of differences in human societies (such as class, environmental resources, ethnicity, gender, race, religion, and sexual orientation). ESD courses build the analytic skills to examine differences within a society and the ways they are reflected in and shaped by historical, cultural, social, political, economic, and other processes. (Designated by ESD following a course number in the course descriptions.)

International Perspectives. These courses assist students in developing a critical understanding of the world beyond the United States. IP courses provide students with the tools necessary to analyze non-U.S. cultures, societies, and states (including indigenous societies and sovereign nations within the United States and its territories), either modern or historical. (Designated by IP following a course number in the course descriptions.)

Visual and Performing Arts. These courses help students expand their understanding of artistic expression and judgment through creation, performance, and analysis of artistic work

## The Curriculum

in the areas of dance, film, music, theater, and visual art. (Designated by VPA following a course number in the course descriptions.)

First-year seminars, independent study courses, and honors projects do not fulfill any of the five Distribution Requirements. Further, these requirements may not be met by Advanced Placement or International Baccalaureate credits, and may only be satisfied with courses taken at Bowdoin. These requirements should be completed by the end of the student's fourth semester in college. A course will be counted as meeting a Distribution Requirement if a student earns a grade of D or better; courses will not be counted if they are elected to be taken with the Credit/D/Fail grading option, though courses will count if they are required to be taken for a Credit/D/Fail grade. Students may not count the same course toward more than one Distribution Requirement.

Also note that the requirement of completing a first-year seminar will only be met if the seminar is taken for regular letter grades.

## Division Requirements

Students must take at least one full-credit course (or the equivalent) from each of the following three divisions of the curriculum.

Natural Science and Mathematics: Designated by the letter a following a course number in the course descriptions.

Social and Behavioral Sciences: Designated by the letter b following a course number in the course descriptions.

Humanities: Designated by the letter c following a course number in the course descriptions.
Like the Distribution Requirements, Division Requirements may not be met by Advanced Placement or International Baccalaureate credits, and may only be satisfied with courses taken at Bowdoin. A course will be counted as meeting a Division Requirement if a student earns a grade of D or better; courses will not be counted if they are elected to be taken with the Credit/D/Fail grading option, though courses will count if they are required to be taken for a Credit/D/Fail grade. With one exception, students may count the same course to meet a division and a distribution requirement. The exception is a course that is designated to meet the humanities division requirement and the visual and performing arts distribution requirement; students may not count such a course to meet both requirements.

## The Major Programs

Students may choose one of six basic patterns to satisfy the major requirement at Bowdoin: a departmental major, two departmental majors (a double major), a coordinate major, an interdisciplinary major, a student-designed major, or any of the preceding with a departmental minor. The requirements for completing specific majors and minors are presented in detail in the section describing the courses offered by each department, beginning on page 41. Interdisciplinary majors are described beginning on page 216.

Students should have ample time to be exposed to a broad range of courses and experiences before focusing their educational interests and so do not declare their majors until the fourth semester of their college enrollment. Students are required to declare their majors before registering for courses for the junior year or applying to participate in junior- or senior-year off-campus study programs. Students declare their majors only after consultation with a major
academic advisor(s). Since some departments have courses that must be passed or criteria that must be met before a student will be accepted as a major, students are encouraged to think well in advance about possible majors and to speak with faculty about their educational interests. Students may change their majors after consultation with the relevant departments, but they may not declare a new major after the first semester of the senior year. Special procedures exist for student-designed majors. These are described below.

## Departmental and Program Majors

Departmental and program majors are offered in the following areas:

| Africana Studies | German |
| :--- | :--- |
| Anthropology | Government and Legal Studies |
| Art History | History |
| Asian Studies | Latin American Studies |
| Biochemistry | Mathematics |
| Biology | Music |
| Chemistry | Neuroscience |
| Classical Archaeology | Philosophy |
| Classical Studies | Physics |
| Classics | Psychology |
| Computer Science | Religion |
| Earth and Oceanographic Science | Romance Languages |
| Economics | Russian |
| English | Sociology |
| French | Spanish |
| Gender and Women's Studies | Visual Arts |

A student may choose to satisfy the requirements of one department or program (single major) or to satisfy all of the requirements set by two departments or programs (double major). A student who chooses a double major may drop one major at any time.

## Coordinate Major

The coordinate major encourages specialization in an area of learning within the framework of a recognized academic discipline. The coordinate major is offered only in relation to the Environmental Studies Program. For a specific description of this major, see pages 138-152.

## Interdisciplinary Major

Interdisciplinary majors are designed to tie together the offerings and major requirements of two separate departments by focusing on a theme that integrates the two areas. Such majors usually fulfill most or all of the requirements of two separate departments and usually entail a special project to achieve a synthesis of the disciplines involved.

Anticipating that many students will be interested in certain patterns of interdisciplinary studies, several departments have specified standard requirements for interdisciplinary majors. These are:

Art History and Archaeology<br>Art History and Visual Arts<br>Chemical Physics<br>Computer Science and Mathematics

## The Curriculum

English and Theater
Eurasian and East European Studies
Mathematics and Economics
Mathematics and Education
For complete descriptions of these interdisciplinary majors, see pages 216-220. A student may not select an interdisciplinary major after the junior year.

## Student-Designed Major

Some students may wish to pursue a major program that does not fit the pattern of a departmental major, a coordinate major, or an interdisciplinary major. In such cases, a student may work with two faculty members to develop a major program that demonstrates significant strength in at least two departments. Such strength is to be shown in both the number and pattern of courses involved. A synthesizing project is required. Guidelines for the development of student-designed majors are available from the Office of the Registrar. Student-designed majors require the approval of the Curriculum Implementation Committee. Students must submit their proposals to the Curriculum Implementation Committee by December 1 of their sophomore year.

## The Minor

Most departments and programs offer one or more minor programs consisting of no fewer than four courses and no more than seven courses, including all prerequisites. A minor program must be planned with and approved by both the student's major and minor departments no later than the end of the first semester of the senior year. A minor may be dropped at any time.

The following departments and programs offer a minor:

Africana Studies
Anthropology
Art (Art History or Visual Arts)
Asian Studies (Asian Studies, Chinese, or Japanese)
Biology
Chemistry
Classics (Archaeology, Classical Studies, Classics, Greek, or Latin)
Computer Science
Dance*
Earth and Oceanographic Science
Economics (Economics or
Economics and Finance)
Education* (Education Studies or Teaching)
English
Environmental Studies

Film Studies*
Gay and Lesbian Studies*
Gender and Women's Studies
German
Government and Legal Studies
History
Latin American Studies
Mathematics
Music
Philosophy
Physics
Psychology
Religion
Romance Languages
(French, Italian, or Spanish)
Russian
Sociology
Theater*

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## Information about Courses

## Course Credit

Bowdoin courses typically meet for three hours a week, with the anticipation that additional time may be spent in lab, discussion group, film viewings, or preparatory work. Most courses earn one credit each. Music and dance performance courses generally earn one-half credit each; the one exception is Advanced Individual Performance Studies in music, which earn one credit each.

Typically, a course may only satisfy the requirements for one major or minor. Upon the consent of both departments, a maximum of one course may be used to meet the requirements of two majors or a major and a minor, with the exception of the coordinate major, which may allow more.

## Course Load

All students at Bowdoin are full-time students and, in order to make normal progress toward the degree, are expected to register for no fewer than four credits each semester. Students may not take fewer than three credits per semester without approval from the Recording Committee; first-year students may not take fewer than four credits per semester without the approval of both their academic advisor and the Dean of First-Year Students. Students may not take more than five credits without approval from their academic advisor(s) and dean. Students may not take more than four credits while on academic probation without approval from the Recording Committee. Seniors may be required to take one course per semester in their major department, at the department's discretion.

No extra tuition charge is levied upon students who register for more than four credits, and, by the same token, no reduction in tuition is granted to students who choose to register for fewer than four credits during any of their eight semesters at Bowdoin. A student may be granted a tuition reduction for taking fewer than three credits only if a ninth semester is required to complete the degree and $\mathrm{s} /$ he has previously been a full-time Bowdoin student for eight semesters. All such appeals should be made in writing to the Dean of Student Affairs and the Senior Vice President for Finance and Administration \& Treasurer.

## Attendance and Examinations

Students are expected to attend the first meeting of any course in which they are registered. Students who do not attend the first meeting may be dropped from the course at the discretion of the instructor, but only if the course was officially full before the first day of the semester. Otherwise, Bowdoin has no class attendance requirements, but individual instructors may establish specific attendance expectations. At the beginning of each semester, instructors will make clear to students the attendance regulations of each course. If expectations are unclear, students should seek clarification from their instructors.

Attendance at examinations is mandatory. An absence from any examination, be it an hour examination or a final examination, may result in a grade of F . In the event of illness or other unavoidable cause of absence from examinations, instructors may require documentation of excuses from the Office of the Dean of Student Affairs after consultation with the Health

## Agademic Standards and Regulations

Center or the Counseling Service. Students bear ultimate responsibility for arranging make-up or substitute coursework. In unusual cases (family and personal emergencies, illness, etc.), examinations may be rescheduled by agreement of the course instructor and a dean.

Final examinations of the College are held at the close of each semester and must be given according to the schedule determined each semester by the Office of the Registrar. Extra classes may only be scheduled during Reading Period with permission from the Dean for Academic Affairs. All testing activity is prohibited during Reading Period including, but not limited to, take-home exams, final exams, and hour exams. All academic work, except for final examinations, final papers, final lab reports, and final projects, is due on or before the last day of classes; although instructors may set earlier deadlines, they may not set later deadlines. All final academic work, including final examinations, final papers, final lab reports, and final projects is due at or before 5:00 p.m. on the last day of the final examination period; although instructors may set earlier deadlines, they may not set later deadlines. In all cases, students should consult their course syllabi for specific deadlines for specific courses. The deadline for submitting final, approved honors projects for the Library is determined by the College.

Athletics and other extracurricular activities do not exempt students from the normal policies governing attendance at classes and examinations. When conflicts arise, students should immediately discuss possible alternatives with course instructors. At times, however, students may find themselves having to make serious choices about educational priorities.

A student with three hour examinations in one day or three final examinations in two days may reschedule one for a day mutually agreeable to the student and the instructor. Other changes may be made for emergencies or for educational desirability, but only with the approval of the Office of the Dean of Student Affairs.

Also, no student is required to take an examination or fulfill other scheduled course requirements on recognized major religious holidays and Martin Luther King Jr. Day. The College encourages instructors to avoid scheduling examinations on the following holidays:

2013:

Rosh Hashanah*
Yom Kippur*
2014:
Martin Luther King Jr. Day
First Day of Passover
Good Friday
Easter

September 4-6
September 13-14

January 20
April 14
April 18
April 20

* Holidays begin at sundown on the earlier date shown.


## Course Registration and Course Changes

Students register for courses each semester by obtaining their academic advisor's approval of their course requests and submitting them by the deadline specified by the Office of the Registrar. Since most courses have maximum and minimum registration limits as well as registration priorities, students cannot assume they will be registered for their top-choice courses. Consequently, students should participate in all available "rounds" of registration to have their alternate course choices considered and to make adjustments to their schedules.

Registration for continuing students occurs at the end of the prior semester, generally about four weeks before final examinations. Registration for new students occurs during orientation.

Students who are studying away are strongly encouraged to register at the same time as students who are on campus; the Office of the Registrar provides registration instructions and information at bowdoin.edu/registrar and sends registration instructions to students at their Bowdoin e-mail addresses. Registration in courses is complete only when students submit the Enrollment Form, which must be submitted by the end of the first week of classes. This form verifies that a student is on campus and attending classes. A student who does not submit the Enrollment Form may be removed from all classes and barred from using many of the services of the College, including, but not limited to, dining services, library services, and fitness services. Enrollment Forms submitted late are subject to a $\$ 20$ fine. Any student who registers initially for courses after the first week of classes must pay a $\$ 20$ late fee.

Once classes begin, students may adjust their course schedules by participating in the course add/drop process. Instructions for this process are provided by the Office of the Registrar. Students have two weeks to make the necessary adjustments to their schedules. An instructor will allow a student to add a course if the following three conditions have been met: (1) the student has the necessary qualifications, including but not limited to the course prerequisites; (2) the approved maximum class size limit has not been reached; and (3) the student and instructor have agreed on how missed class material and assignments will be managed. Normally, no course may be added or dropped after the second week of classes. Anyone who wants to add or drop a course after the two-week deadline must petition the Recording Committee, except for students in their first semester at Bowdoin who may drop through the sixth week with the permission of their dean and advisor; this longer period for new students recognizes the fact that new students sometimes undergo a period of adjustment to collegelevel work. Generally petitions are only approved if the student can show extreme personal or medical reasons for the lateness of the change. Any course dropped after the deadline will appear on the transcript with a grade of W (for withdrew). In order to add a course late, a student must have been attending the course from the very beginning of the semester. Documentation may be required. Course changes made after the deadline will require payment of a $\$ 20$ late fee per change, unless the change is made for reasons outside the control of the student.

A student will not receive a grade for a course unless $s /$ he has completed all steps to register for or add the course. Also, a student will receive a failing grade for a course $s /$ he stops attending unless all steps to drop the course have been completed before the deadline. Students are expected to monitor their records in Polaris, the College's student information system; this includes monitoring the courses for which they are registered. The student bears ultimate responsibility for completing the processes that provide the College with an accurate record of the student's course schedule.

## Independent Study

With approval of a project director, a student may elect a course of independent study for which regular course credit will be given. A department will ordinarily approve one or two semesters of independent study. Where more than one semester's credit is sought for a project, the project will be subject to review by the department at the end of the first semester. In special cases that have the support of the department, credit may be extended for additional semester courses beyond two.

There are normally two levels of independent study and each should be registered for under the appropriate course number. A directed reading course designed to allow a student to explore a subject not currently offered within the curriculum shall be numbered 2970-2998 \{291-294\}. An independent study that will culminate in substantial and original research; or in
a fine arts, music, or creative writing project; or that is part of a departmental honors program shall be numbered $4000\{401\}$ or higher. Once a department determines that a project will be awarded honors, the project has been submitted to the College Library, and a grade has been recorded for the course, the course number(s) for one or two semesters of independent study will be changed to 4050-4079 \{451-452\}. Collaborative studies allow students to work in small groups guided by a member of the faculty. Intermediate collaborative studies are numbered $2999\{299\}$; advanced collaborative studies are numbered $4029\{405\}$. Independent and collaborative studies may not be taken on a Credit/D/Fail basis.
In independent study and honors courses that will continue beyond one semester, instructors have the option of submitting at the end of each semester, except the last, a grade of S (for Satisfactory) in place of a regular letter grade. An $S$ grade must be converted to a regular letter grade by the end of the subsequent term. All independent study grades must be regular letter grades by the end of the project's final semester.

## Course Grades

Course grades are defined as follows: A , the student has mastered the material of the course and has demonstrated exceptional critical skills and originality; $B$, the student has demonstrated a thorough and above average understanding of the material of the course; C , the student has demonstrated a thorough and satisfactory understanding of the material of the course; D , the student has demonstrated a marginally satisfactory understanding of the basic material of the course (only a limited number of D grades may be counted toward the requirements for graduation); F , the student has not demonstrated a satisfactory understanding of the basic material of the course. Plus $(+)$ or minus $(-)$ modifiers may be added to B and C grades; only the minus ( - ) modifier may be added to the A grade.
Faculty report grades to the Office of the Registrar at the close of the semester. Each student in each course must be given a grade by the grade submission deadline as established by the Registrar. Grade reports are available to students in Polaris shortly after the grade submission deadline.

Once reported, no grade is changed (with the exception of clerical errors) without the approval of the Recording Committee. Recorded grades cannot be changed on the basis of additional student work without prior approval of the Recording Committee. If students are dissatisfied with a grade received in a course, they should discuss the problem with the instructor. If the problem cannot be resolved in this manner, the student should consult with the chair of the department and, if necessary, with a dean, who will consult with the department as needed. The student may request a final review of the grade by the Recording Committee.

Most departments will not accept as prerequisites, or as satisfying the requirements of the major, courses for which a grade of D has been given. Questions should be referred directly to the department chair. Students who receive a grade of D or F in a course may retake the course. Both courses and both grades will appear on the transcript, but only one course credit will be given for successful completion of a given course. For grades recorded prior to Fall 2013, only the first grade earned in a repeated course is counted in a student's GPA; beginning with grades recorded for Fall 2013, all grades earned in repeated courses are counted in a student's GPA.

## Credit/D/Fail Option

A student may choose to take a limited number of courses with the Credit/D/Fail grading option as opposed to earning regular letter grades. A course may be changed from letter grades to Credit/D/Fail or vice versa up until the end of the sixth week of classes using the process established by the Office of the Registrar. When a student chooses the Credit/D/ Fail grading option, a grade of CR (credit) is given if the student produces work at a level of C - or above, a grade of D is given if the student produces work at a D level, and a grade of F is given otherwise.

In any given semester, a student must be registered for a minimum of 4.0 total credits to elect the Credit/D/Fail grading option for a course. A student who has 5.0 or more credits in his/her semester course load may elect to take an additional course on a Credit/D/Fail basis. A student may elect the Credit/D/Fail grading option for up to four courses within the 32 credits required for graduation; courses in excess of the 32 credits required may be taken Credit/D/Fail without limit as to number, beginning with the semester following the one in which the 32 credits are completed and as long as the semester course load totals 4.0 credits or more. Courses that are only graded Credit/D/Fail (music ensemble and dance and theater performance courses, as examples) are not counted within these restrictions.

Most departments require that all courses taken to satisfy requirements for the major or minor be taken for regular letter grades. Courses taken to satisfy the College's first-year seminar requirement must be graded with regular letter grades, and courses satisfying distribution and division requirements must also be taken for regular letter grades (unless CR, D, and F are the only grades given for the course). An independent study, collaborative study, or honors project must be graded with regular letter grades.

A grade of CR (credit) will not count toward a student's GPA. A grade of D or F received on the Credit/D/Fail grading scale will count toward a student's GPA, and it will count toward academic standing (probation, suspension, and dismissal).

## Incompletes

The College expects students to complete all course requirements as established by instructors. In unavoidable circumstances (personal illness, family emergency, etc.) and with approval of the Dean of Student Affairs and the instructor, a grade of INC (Incomplete) may be recorded.

An Incomplete represents a formal agreement among the instructor, a dean, and the student for the submission of unfinished coursework under prescribed conditions. Students must initiate their request for an Incomplete on or before the final day of classes by contacting a dean. If the Incomplete Agreement Form has not been approved and received in the Office of the Registrar by the grade submission deadline and no other grade has been assigned, a grade of F will be recorded. If the Incomplete Agreement Form has been approved and signed by all necessary individuals, a date is set by which time all unfinished work must be submitted. In all cases, students are expected to finish outstanding coursework in a period of time roughly equivalent to the period of distraction from their academic commitments. In no case will this period of time extend beyond the end of the second week of classes of the following semester. The instructor should submit a final grade within two weeks of this date. If the agreed-upon work is not completed within the specified time limit, the Office of the Registrar will change the Incomplete to Fail or ask the instructor to give a grade based on work already completed. Extensions must be approved by the Dean of Student Affairs. Any exceptions to these rules may require approval of the Recording Committee.

## Comment and Failure Cards

Faculty communicate the progress of students in their classes periodically through Comment Cards. These written observations alert students, academic advisors, and the deans in the Office of Student Affairs to potential problems confronting students. They can also be used by faculty to highlight improvement or successes. Students should view Comment Cards as academic progress reports providing warnings or highlighting achievements. When a Comment Card provides a warning, the student should immediately seek out his or her instructor to discuss strategies for improvement. Academic advisors and deans can also be very helpful in developing strategies for improvement and identifying existing support services and resources, but it is the student's responsibility to seek out each of these people. Not all course instructors utilize Comment Cards so students should not rely on this form of communication as their only source of feedback regarding their progress or standing in a course.

At the end of each semester, instructors issue Failure Cards to students who fail courses. These notations provide precise reasons for a student's failing grades. Students and academic advisors generally find these comments instructive as they plan future coursework.

## Transcripts

The Office of the Registrar will furnish official transcripts upon receipt of a written request that includes the student's signature. There is no charge for transcripts unless it is requested that materials be sent by an overnight delivery service.

## Statement of Student Responsibility

The College Catalogue is available online to every Bowdoin student at bowdoin.edu/catalogue. Also, students have access to their academic records on Polaris, the College's student information system. In all cases, the student bears ultimate responsibility for reading and following the academic policies and regulations of the College and for notifying the Office of the Registrar of any problems in his or her records.

## The Award of Honors

## General Honors

General honors (or Latin honors) are awarded with the degree on the basis of an average of all grades earned at Bowdoin, with a minimum of sixteen credits required for the computation. To compute the average, an A is assigned four points; a B , three points; a C , two points; a D, one point; and an F, zero points. Plus $(+)$ or minus $(-)$ modifiers add or subtract three-tenths of a point (0.3). Half-credit courses are weighted as one-half course. Credit grades (CR) are omitted from the computation, but a D or F grade received in a course taken on a Credit/D/Fail basis does count. In the case of a course taken at Bowdoin one or more times prior to Fall 2013, only the first grade is included; beginning with grades recorded for Fall 2013, all grades earned in repeated courses are included. The resulting grade point average (GPA) is not rounded. A degree summa cum laude is awarded to students whose GPAs are in the top two percent $(2 \%)$ of the graduating class; a degree magna cum laude is awarded to students whose GPAs are in the rest of the top eight percent ( $8 \%$ ) of the graduating class; and a degree cum laude is awarded to students whose GPAs are in the rest of the top twenty percent ( $20 \%$ ) of the graduating class.

## Departmental Honors: The Honors Project

The degree with a level of honors in a major subject is awarded to students who have distinguished themselves in coursework in the subject and in an honors project. The award is made by the faculty upon recommendation of the department or program.

The honors project offers seniors the opportunity to engage in original work under the supervision of a faculty member in their major department or program. It allows qualified seniors to build a bridge from their coursework to advanced scholarship in their field of study through original, substantial, and sustained independent research. The honors project can be the culmination of a student's academic experience at Bowdoin and offers an unparalleled chance for intellectual and personal development.

Students who have attained a specified level of academic achievement in their field of study by their senior year are encouraged to petition their department or program to pursue an honors project carried out under the supervision of a faculty advisor. The honors project usually takes place over the course of two semesters; some departments allow single-semester honors projects. The honors project results in a written thesis and/or oral defense, artistic performance, or showing, depending on the student's field of study. Students receive a grade for each semester's work on the honors project and may be awarded a level of honors in their department or program, as distinct from general honors.

The honors project process differs across departments and programs in terms of qualification criteria, requirements for completion, the level of honors awarded, and the use of honors project credits to fulfill major course requirements. In general, each semester's work on an honors project will be considered an independent study numbered $4000\{401\}$ or higher until the honors project is completed. Students must complete an honors project to be eligible for departmental or program honors. All written work in independent study accepted as fulfilling the requirements for departmental honors is to be deposited in the College Library. Once a department determines that a project will be awarded honors, the project has been submitted to the College Library, and a grade has been recorded for the course, the course number(s) for one or two semesters of independent study will be changed to $4050-4079\{451-452\}$. If students do not fulfill the requirements for completion of the honors project but carry out satisfactory work for an independent study, they will receive independent study credit for one or two semesters.

## Sarah and James Bowdoin Scholars (Dean's List)

Sarah and James Bowdoin scholarships, carrying no stipend, are awarded in the fall on the basis of work completed the previous academic year. The award is given to the twenty percent ( $20 \%$ ) of students with the highest grade point average (GPA). Eligible students are those who completed the equivalent of eight full-credit Bowdoin courses during the academic year, six credits of which were graded with regular letter grades and seven credits of which were graded with regular letter grades or non-elective Credit/D/Fail grades. In other words, among the eight required full-credit courses or the equivalent, a maximum of two credits may be graded Credit/D/Fail, but only one credit may be for a course(s) the student elected to take with the Credit/D/Fail grading option. Grades for courses taken in excess of eight credits are included in the GPA. For further information on the College's method for computing GPA, consult the section on General Honors on page 26.

A book, bearing a replica of the early College bookplate serving to distinguish the James Bowdoin Collection in the library, is presented to every Sarah and James Bowdoin scholar who has earned a GPA of 4.00.

Students who receive College honors have their names sent to their hometown newspaper by the Office of Communications. Students not wishing to have their names published should notify the office directly.

## Deficiengy in Scholarship

Students are expected to make normal progress toward the degree, defined as passing the equivalent of four full-credit courses each semester. Students not making normal progress may be asked to make up deficient credits in approved courses at another accredited institution of higher education. In addition, students are expected to meet the College's standards of academic performance. The Recording Committee meets twice each year to review the academic records of students who are not meeting these standards. Students are placed on probation or suspension according to the criteria below; students on probation or suspension are not considered to be in good academic standing. In cases of repeated poor performance, a student may be dismissed from the College. In cases when a student's academic standing changes, copies of correspondence with the student that outline the student's academic standing are sent to the student's parents or guardian.

## Academic Probation

Students are placed on academic probation for one semester if they:

1. Receive one F or two Ds in any semester; or
2. Receive one D while on academic probation; or
3. Receive during their tenure at Bowdoin a total of four or five Ds or some equivalent combination of Fs and Ds where one F is equivalent to two Ds. Note: Under some circumstances, a student may qualify for academic suspension. See "Academic Suspension," below.

Also, students are placed on academic probation for one semester upon returning from academic suspension. Students on academic probation will be assigned to work closely with their academic advisor and a person from the Office of the Dean of Student Affairs. Students are required to enroll in four full-credit courses graded with regular letter grades while on academic probation. Students on academic probation normally are not eligible to study away.

## Academic Suspension

Students are placed on academic suspension if they:

1. Receive two Fs, one F and two Ds, or four Ds in any semester; or
2. Receive one F or two Ds while on academic probation; or
3. Receive during their tenure at Bowdoin a total of six Ds or some equivalent combination of Fs and Ds where one F is equivalent to two Ds.

A student on suspension for academic deficiency normally is suspended for one year and may be asked to complete coursework at another accredited four-year institution before being readmitted. Students are expected to earn grades of C- or better in these courses. Other conditions for readmission are set by the Recording Committee and stated in writing at the time of suspension. A suspended student must submit a letter requesting readmission. The Readmission Committee meets to consider these requests. A student who is readmitted is eligible for financial aid, according to demonstrated need, as long as the student adheres to the relevant financial aid deadlines. Once the student is readmitted, the Office of the Registrar
will send course and registration information to the student's College e-mail address unless an alternative e-mail address has been provided. Students are ineligible for housing until after they have been readmitted, and there is no guarantee that College housing will be available at that time. While suspended, students are not permitted to visit campus without the written permission of the Dean of Student Affairs. Generally, permission to visit campus is only granted for educational or health treatment purposes. Students are unable to participate in Bowdoin College athletic programs until they have been readmitted. Students are permitted to submit an application for Off-Campus Study (normal deadlines apply); however they are not eligible to apply for resident assistant (RA), proctor, or house resident positions until readmitted.

## Dismissal

Students will be subject to dismissal if they:

1. Incur a second academic suspension; or
2. Receive during their tenure at Bowdoin a total of seven or eight Ds (or some combination of Fs and Ds where one F is equivalent to two Ds ) after having previously been placed on academic suspension; or
3. Receive during their tenure at Bowdoin a total of nine Ds or some equivalent combination of Fs and Ds where one F is equivalent to two Ds.

## Other Academic Regulations

## Leave of Absence

Students may, with the approval of a dean and in consultation with their academic advisor, interrupt their Bowdoin education and take a leave of absence to pursue nonacademic interests for one or two semesters. The conditions governing a leave of absence are as follows:

1. Students must be in good academic and social standing at the end of the semester immediately prior to the start of the leave.
2. Leaves typically begin at the start of a regular semester and may not extend beyond two terms. Exceptions may be granted by the Dean of Student Affairs.
3. Leave extensions, terminations, or cancellations must have the approval of a dean.
4. Students on leave are not considered enrolled at Bowdoin and are expected to leave the College community. Exceptions may be granted by the Dean of Student Affairs.
5. Students on leave may not transfer academic credit to Bowdoin for coursework taken while on leave.

Students on leave of absence will be able to participate in course registration for the semester in which they are expected to return. Course registration instructions will be sent to the student's Bowdoin e-mail address. Students will be able to participate in the selection of housing via a proxy process and are free to visit campus without the dean's permission. While on leave, students are unable to compete in Bowdoin College athletic programs until after the last day of exams prior to the semester that they are scheduled to return. Students are permitted to submit applications for Off-Campus Study and for resident assistant (RA), proctor, or house resident positions, and normal deadlines apply. Students are expected to return at the conclusion of their leave. Readmission is unnecessary, and individuals retain financial aid eligibility if they adhere to College deadlines.

To initiate a request for a leave of absence, students must complete a Leave of Absence Request Form. These are available in the Office of the Dean of Student Affairs and at bowdoin.edu/studentaffairs/forms. Approvals for a leave and the conditions associated with the leave will be provided in writing to the student by the dean.

## Medical Leaves

In unusual circumstances, the Dean of Student Affairs or his or her designee may, upon careful consideration of the welfare of the individual student and the college community, place a student on leave of absence from the College. This policy outlines the circumstances of such leaves as well as various procedures and conditions, including readmission criteria and processes and implications for the student in terms of academic, financial, insurance, and housing matters.

Voluntary Medical Leave: A student is encouraged to request a voluntary medical leave in the event that s/he believes that physical and/or mental health concerns are significantly interfering with the ability to succeed at Bowdoin and/or that the demands of college life are interfering with recovery or safety. A student who, in consultation with either the director of the Health Center or director of the Counseling Service, determines that $\mathrm{s} /$ he needs to request a voluntary medical leave should contact his/her dean to discuss the terms of the leave as decided by the College.

Involuntary Medical Leave: In unusual circumstances, the Senior Associate Dean of Student Affairs or his or her designee, in consultation with Health Center and/or Counseling professionals, may determine that a student needs to be placed on involuntary medical leave. In the event such a determination is made, the College will immediately convey that determination in writing to the student. The determination will be based upon an individualized and objective assessment of the student's ability to safely participate in the College's programs and will examine whether the student presents a direct threat of substantial harm to that student or other members of the College community. The assessment will determine the nature, duration, and severity of the risk; the probability that the potentially threatening injury will actually occur; and whether reasonable modifications of policies, practices, or procedures will sufficiently mitigate the risk. In addition, a student who is not attending class or making satisfactory academic progress may be placed on an involuntary medical or personal leave at the dean's discretion.

Return from Hospitalization: A student who is hospitalized as a result of a physical or mental health issue may wish to take a medical leave from Bowdoin to recover. If so, the student should follow the voluntary medical leave process set forth herein. In the event the student no longer requires a hospital setting and does not wish to take a medical leave, that student must be evaluated by Bowdoin for readiness to return to campus before the student can return. Note that, in some situations, the hospital may determine that the student can be discharged; however, a separate administrative decision is to be made by Bowdoin with respect to whether or not that student can return to campus. It may be determined, upon such an individualized evaluation, that the student has recovered such that $\mathrm{s} /$ he no longer requires a hospital setting but may still need more support than $\mathrm{s} /$ he can receive in a residential college setting. In such situations, a required withdrawal from Bowdoin for medical reasons may be considered to allow for a more extended period of recuperation. In that situation, the involuntary medical leave process shall be followed as set forth herein.

Parental Notification: The College reserves the right to notify a parent or guardian of their student's status if circumstances warrant and if it is believed to be in the best interest of the student and the College community without limitations to state and federal privacy laws.

Appeal Procedure for Involuntary Medical Leave: If a student believes that a decision for an involuntary medical leave made by the College is unreasonable or that the procedures and/or information relied upon in making the decision were wrong or unfair, the student may appeal the decision. The appeal must be made in writing to the Dean of Student Affairs. Appeals should clearly state the specific unreasonable, wrong, and/or unfair facts and should present relevant information to support the statements. Once notified of the involuntary medical leave, the student has five (5) business days to submit his or her appeal. The student may not remain on campus during the appeal period. If no timely appeal is submitted, the decision about the involuntary medical leave is final. The dean or his or her designee will respond in writing to the student's written appeal within five (5) business days. The response will provide a conclusion as to whether or not the involuntary medical leave is appropriate upon a thorough review of the relevant facts and information. The dean may request an assessment by an outside medical provider at the student's expense, unless the student demonstrates an inability to afford such an assessment, in which case an alternative payment arrangement shall be made upon mutual discussion by the College and the student.

Readmission Criteria and Procedures: A student who has been placed on medical leave, whether voluntary or involuntary, must complete the following readmission procedures before the student is allowed to return to Bowdoin College:

The student must send a letter to the Readmission Committee, to the attention of the Senior Associate Dean of Student Affairs, requesting formal readmission to the College. The student must send to the Readmission Committee a report from the student's physician and/or mental health provider; the report will include discussion of the student's current health status, course of treatment undergone during the leave, as well as any specific recommendations for the student and the College with respect to the student's successful return to Bowdoin. The report will address the following: (a) the student's readiness to return to the academic and co-curricular demands of college life; (b) the student's readiness to live on campus; (c) the student's ongoing treatment needs; (d) the student's readiness to return to competitive sports, if the student is a collegiate athlete; and (e) any other suggestions that the health care provider deems appropriate.

The student's physician and/or mental health provider must be a licensed physician if the evaluation is regarding medical concerns and must be a licensed mental health provider if evaluating mental health concerns. Further, all providers must be unrelated to the student and must have a specialty and credentials appropriate for the condition(s) of concern. The student is responsible for any cost associated with the physician or mental health provider's evaluation.

The Readmission Committee will review the information provided by the student and evaluate the appropriateness of the student's return. The committee may request further information from the student's medical or mental health providers. In order to provide for such requests, the student will be asked to sign and return a release form so that those individuals at the College who are involved in evaluating the student's return can have access to the student's outside health care providers and have the ability to openly discuss relevant aspects of the student's condition. In addition, the director of the Health Center and/or the director of the Counseling Service may also choose to meet with the student as part of the evaluation.

Once the Readmission Committee has reached a decision, the student will be notified by his or her dean. The decision of the committee is final.

In the event that the student is permitted to return to Bowdoin, the student will speak with his or her dean before returning in order to discuss the terms of the student's readmission including, if appropriate, a discussion of a continuing treatment plan for the student. If such a plan is established, and if the student does not follow the established plan, the College will have the right to revoke its decision to readmit the student and will have the right to require the student to resume his or her medical leave immediately.

## Additional Considerations: Academic Implications

Enrollment Status: While on medical leave, a student is not an enrolled student at Bowdoin College. The medical leave status will continue until the student is prepared to return to the College and is readmitted by the Readmission Committee.

Taking Courses at Other Institutions: The College discourages students on medical leave from transferring course credit to Bowdoin. The Office of the Dean of Student Affairs may allow a limited course load (one or two courses pre-approved by the College) with the support, in writing, of the student's health care provider. All requests for such course approval must be made in writing to the Senior Associate Dean of Student Affairs. Requests for transferring course credit for more than two courses are seldom granted and require prior approval of the Recording Committee.

Off-Campus Study Applications: Students on medical leave are permitted to submit applications for Off-Campus Study, but must comply with the deadlines for those programs. Questions should be directed to the Office of International Programs and Off-Campus Study.

Course Registration: Once the student on medical leave has been readmitted to the College, $\mathrm{s} / \mathrm{he}$ will be able to participate in course registration. Course registration instructions will be sent to the student's Bowdoin e-mail address. It is strongly advised that the student consult with his or her course instructors, advisor, and dean when choosing courses following a medical leave.

Educational Record Reflection: The student's transcript will not reflect his or her medical leave. In the event a medical leave occurs after the start of the semester, courses for that semester will be listed on the transcript with grades of "W" (withdrew). A copy of the student's medical leave approval letter will be placed in the student's file in the Dean of Student Affairs Office. The handling of the student's educational record is governed by the Family Education Rights and Privacy Act (FERPA). For more information about FERPA and a student's rights under the law, consult the Student Handbook online.

## Financial Implications

Financial Aid Eligibility: Students on medical leave retain financial aid eligibility as long as all College deadlines are met prior to readmission. Questions should be directed to the Office of Student Aid.

Tuition and Fee Refunds: Tuition and fee refunds for medical leaves taken during the course of a semester are made in accordance with the College's Refunds Policy. For more information, consult the Refunds section on page 12.
Tuition Insurance: Tuition insurance is available, but it must be purchased prior to the start of the semester. Questions should be directed to the College Bursar.

## Insurance Implications

Student Health Insurance: If the student is currently enrolled in the Bowdoin Student Accident and Sickness Insurance Plan, coverage will continue as specified by the policy. If the student waived Bowdoin's plan, $s /$ he should consult his or her comparable plan for any exclusions or limitations. Questions should be directed to the Student Health Insurance Coordinator.

## Housing Implications

On a case-by-case basis, the College, in consultation with the student's health care providers, may determine that the returning student should not live on campus but is capable of attending classes. In addition, College housing may not be available to the student upon his or her return, due to space limitations. Once the student has been readmitted, s/he can discuss availability and options with the Office of Residential Life. In the event that College housing is not available, the student may choose to live in housing in the local area. The Office of Residential Life maintains information on local area rental listings. Questions should be directed to the Office of Residential Life.

Presence on Campus: While a student is on medical leave, whether voluntary or involuntary, $\mathrm{s} /$ he will not be permitted to visit campus without prior written permission of the Dean of Student Affairs. Permission will be granted for certain pre-approved educational or health treatment purposes only.

## Transfer of Credit from Other Institutions

The Bowdoin degree certifies that a student has completed a course of study that meets standards established by the faculty. It is normally expected that all of a student's coursework after matriculation will be completed either at Bowdoin or in an approved semester- or yearlong off-campus study program. (More information about such programs can be found in the section on Off-Campus Study on page 38.)

Apart from taking courses at Bowdoin or in approved off-campus study programs, the College recognizes that there may be rare occasions when it would serve a student's educational interests to take courses elsewhere for credit toward the Bowdoin degree. In such cases, the work done elsewhere should represent a standard of achievement comparable to what is expected at Bowdoin in a field of study characteristic of the liberal arts.

A student may transfer a cumulative total of no more than four credits from study in summer school programs from four-year accredited colleges/universities. The College does not regularly grant credit for work completed through two-year institutions, correspondence courses, online distance education courses, or abbreviated winter terms ("Jan Plans") or their equivalent at other times of the year. The College does not grant credit for professional or vocational study at other institutions. Credit is not granted for courses taken elsewhere during the academic year except in special circumstances and with the prior approval of the Recording Committee.

Students must apply to the Office of the Registrar for permission to transfer credit in advance of enrollment at another institution. The Application for Transfer of Credit requires the approval of the appropriate Bowdoin department chair; in order to make this determination the department chair will need to see a course description and/or syllabus for each course. In certain cases, students may be given conditional approval and be required to submit supporting documents, including the course syllabus and all papers and exams, after the course has been completed. The College may decline to grant credit if the course or the student's
work in the course does not satisfy Bowdoin academic standards. Credit is not awarded for courses in which the student has earned a grade below C- or for courses not graded with regular letter grades.

No credit will be awarded until an official transcript showing the number of credits or credithours and the grade(s) earned has been received from the other institution. It is the student's responsibility to ensure that the transcript is sent directly to the Office of the Registrar, and the transcript must arrive in a sealed envelope. The transcript must be received and permission to transfer credit secured within one year following the term in which the course was taken. Credit may not be transferred if a longer time period has elapsed.

Transcripts of credit earned at other institutions that have been presented to Bowdoin College for admission or transfer of credit become part of the student's permanent record, but are not issued, reissued, or copied for distribution. Course titles and grades for courses that were transferred from other institutions are not recorded on the Bowdoin transcript; credit only is listed.

Students should be aware that credits earned elsewhere may not transfer on a one-to-one basis; some courses may be accorded less than a full Bowdoin credit. Students are advised to consult with the Office of the Registrar in advance to learn the basis on which transfer credit will be determined. For comparison purposes, students should know that one Bowdoin course is generally understood to be equal to four semester-hours or six quarter-hours.

Pre-Matriculation Credit: Students may have the opportunity to enroll in college-level coursework prior to matriculating at Bowdoin. Bowdoin College will consider granting credit for pre-matriculation coursework, providing the following criteria have been met: (1) the coursework must have been completed on a college campus at an accredited four-year college/ university in courses taught by college faculty, (2) the coursework must have been completed in a class with matriculated college students, (3) the courses may not have been used to satisfy any high-school graduation requirements, and (4) the coursework must represent a standard of achievement comparable to what is expected at Bowdoin in a field of study characteristic of the liberal arts. Bowdoin also recognizes Advanced Placement, International Baccalaureate, and other international exams and may grant credit toward graduation requirements for them. Students should refer to the Advanced Placement and International Baccalaureate rules in effect at the time of their matriculation. Students may apply a maximum of four pre-matriculation credits toward the Bowdoin degree from approved exams or other approved college/university courses.

## Graduation

Students submit to the Office of the Registrar the Notice of Intent to Graduate by November 1 of the academic year in which they will graduate. This required form is considered the official application for graduation. Submission of this form begins the final degree audit process and ensures that students receive all notices related to Commencement. Students will generally receive written notice by May 1 that they have been given preliminary clearance to graduate. Final clearance is determined after all academic work has been completed and final grades for the spring semester have been recorded.

Students may take part in only one Commencement, and they are normally expected to complete all degree requirements before they participate in graduation exercises. Students with two or fewer credits remaining and who can expect to complete all requirements by the end of the following August may be allowed to participate in Commencement but will not receive a diploma. In such cases, the degree will actually be conferred at the May Commencement
following the completion of all requirements, and the diploma will be mailed to the student at that time. Speakers at Commencement and other students playing visible leadership roles in the ceremony must have completed all requirements for graduation.

## Resignation

Students may resign from Bowdoin at any time. Resignation permanently terminates the student's official relationship with the College. If a student were to wish at some future date to return to Bowdoin, the student would need to reapply to the College through the regular admissions process as a transfer student. Applicants for readmission are reviewed on a case-by-case basis and should contact the transfer coordinator in the Admissions Office for further information. Given the permanency of resignation, students are encouraged to discuss their plans thoroughly with advisors, parents, and a dean. In instances where students have been away from the College for multiple semesters, they may be administratively resigned.

A decision to resign should be submitted in writing using the Notification of Resignation Form, available in the Office of the Dean of Student Affairs.

Students should consult the Expenses section of this Catalogue for information about tuition and room and board refunds.

## The Recording Committee and Student Petitions

The Recording Committee is a standing committee of the College whose purpose is to address matters pertaining to the academic standing of individual students and to consider exceptions to the policies and procedures governing academic life. The committee meets regularly to consider individual student petitions and meets at the end of each semester to review the records of students who are subject to probation, suspension, or dismissal. Decisions of the committee are final.

Students who are seeking exceptions to academic regulations or curricular requirements must petition the Recording Committee. Petition forms may be obtained from the Office of the Dean of Student Affairs. All petitions require the signature of a dean, and, depending on the nature of the request, some may require supporting documentation from a faculty member, doctor, or counselor. Students are notified of the outcome of their petitions by the secretary of the Recording Committee.

## The Readmission Committee

The Readmission Committee is chaired by the Senior Associate Dean of Student Affairs and comprises the Senior, Associate, and Assistant Deans of Student Affairs; Director of Student Aid; Director of Residential Life; Director of the Counseling Service; Director of the Health Center; Director of the Baldwin Program for Academic Development; and a representative from the Office of Admissions. The Committee meets twice a year, in June and December, to consider the petitions of students who are seeking to return from academic suspension, disciplinary suspension, and/or medical leave. Letters requesting readmission and supporting materials should be directed to the Office of the Dean of Student Affairs. Students on academic suspension, disciplinary suspension, and/or medical leave are not normally eligible to register for classes or make housing arrangements until they have been readmitted. Students seeking readmission are notified of the outcome of their petitions by the Office of the Dean of Student Affairs.

## Speqial Academic Programs

## Architectural Studies

Students may combine studio art courses with others in art history, environmental studies, physics, and other related disciplines to prepare for architectural study. Interested students should speak with members of the Visual Arts Division of the Department of Art, with members of the Environmental Studies Program, and with members of Bowdoin Career Planning staff as early in their Bowdoin careers as possible.

## Arctic Studies

A concentration in Arctic studies, offered through a variety of departments including the Department of Sociology and Anthropology, the Department of Earth and Oceanographic Science, the Environmental Studies Program, and the Peary-MacMillan Arctic Museum and Arctic Studies Center, provides students with opportunities to explore artistic, cultural, social, and environmental issues involving Arctic lands and peoples. Students interested in the Arctic are encouraged to consult with the director of the Arctic Studies Center in order to plan an appropriate interdisciplinary program involving course work and field work at Bowdoin, in study abroad programs, and in the North. Work-study and internship opportunities at the Arctic Museum complement the academic program.

## Coastal Studies

The College's location on the coast of Maine affords distinct opportunities for students to study the complexities of coastal landscapes and seascapes. While the College does not offer a formal curriculum devoted to coastal studies, students can take courses focused on coastal issues in a variety of departments and programs including biology, earth and oceanographic science, government, economics, English, visual arts, sociology, anthropology, and environmental studies. Many of the courses take advantage of facilities located at the Coastal Studies Center on Orr's Island (located twelve miles from campus), the Bowdoin Scientific Station (located on Kent Island in the Bay of Fundy), and a variety of other coastal locations in Maine. A number of coastal studies summer research fellowships are available annually to students. Interested students should speak with members of the Coastal Studies Faculty Advisory Committee and Rosemary Armstrong, the Coastal Studies Program coordinator, for guidance in selecting courses with a coastal component and for more information about summer research fellowships.

## Engineering Dual-Degree Options

Bowdoin College arranges shared studies programs with the University of Maine at Orono, the School of Engineering and Applied Science of Columbia University, the Thayer School of Engineering at Dartmouth College, and the California Institute of Technology (Caltech).
Columbia and the University of Maine allow qualified Bowdoin students to transfer into the third year of their engineering programs after three years at Bowdoin. Columbia also offers a 4-2 option, which may be of interest to some students.

Caltech invites students of superior academic achievement from a select group of liberal arts colleges to apply to their 3-2 Program. Determination of acceptance is decided by the Caltech Upperclass Admissions Committee for students to transfer upon completion of their junior year.

Dartmouth offers a number of options, including taking the junior year at the Dartmouth's Thayer School of Engineering, senior year at Bowdoin, and a fifth year of engineering at Dartmouth.

The student successfully completing the Columbia, Maine, or Caltech program earns a bachelor of science degree from the engineering school and a bachelor of arts degree from Bowdoin, at the end of their fifth year. For the Dartmouth program, the engineering courses are used as transfer credits to complete the Bowdoin degree, conferred after the fourth year. The Dartmouth engineering degree is conferred upon successful completion of a fifth year in engineering at Dartmouth.

Finally, students may also apply as regular transfer students into any nationally recognized engineering program, earning only a degree from that engineering institution.
These programs are coordinated by Associate Dean Barry Logan, with assistance from representatives from each natural science department, including Professor William Barker in the Department of Mathematics, Professor Stephen Majercik in the Department of Computer Science, and Professor Dale Syphers and Laboratory Instructor Gary Miers in the Department of Physics and Astronomy. Curricular requirements for engineering dual-degree options vary by program. It is important for students to get advising about the program early in their career at Bowdoin to plan a course of study that will satisfy major and distribution requirements. Students interested in these programs should contact Barry Logan or seek out the representative in the department/program of their intended major.

## Legal Studies

Students considering the study of law may consult with Scheherazade Mason at Bowdoin Career Planning. Bowdoin applicants from every major and department have been successful applicants to highly competitive law schools. Students will be provided guidance and assistance on all aspects of the application process. It is best to begin planning for law school by the beginning of the junior year. Bowdoin Career Planning can introduce students to alumni attending law school or practicing law. In addition, the Career Planning library has excellent written and online resources about law schools and careers in the legal field. Bowdoin Career Planning also supports and assists Bowdoin alumni with the law school application process if they choose to apply in the years following graduation.
Bowdoin participates with Columbia University in an accelerated interdisciplinary program in legal education. Under the terms of this program, Bowdoin students may apply to begin the study of law after three years at Bowdoin. Students who successfully complete the requirements for the J.D. at Columbia also receive an A.B. from Bowdoin. Students interested in the Columbia program should meet with Professor Richard E. Morgan during their first year at Bowdoin to plan a course of study that will satisfy major and distribution requirements.

## Teaching

Students interested in teaching in schools or enrolling in graduate programs in education should discuss their plans with personnel in the Department of Education. Because courses in education, along with a concentration in a core secondary school subject area (English, foreign language, life science, mathematics, physical science, or social studies) is necessary for certification, it is wise to begin planning early so that schedules can be accommodated. (For information on the Bowdoin Teacher Scholars program, see pages 119-121.) An extensive resource library in Bowdoin Career Planning contains information about graduate programs, summer and academic year internships, volunteer opportunities with youth, and public and private school openings. Career advising and credential file services are also available.

## Off-Campus Study

Semester and Academic Year: Students are encouraged to broaden and enrich their education through participation in semester- and year-long programs of off-campus study. Whether off-campus study occurs abroad or in the United States, the College regards it as an extension of the on-campus educational experience and expects the courses in which students earn credit toward the degree to be in a field of study characteristic of the liberal arts and to be academically engaging and complementary to their studies at Bowdoin.

A student who wishes to count academic credit earned in an off-campus study program toward the Bowdoin degree is required to obtain approval, in advance, from the Office of International Programs and Off-Campus Study. If the student wishes to count credits earned in the program toward the major, the approval of the major department is required as well. Students contemplating off-campus study should consult the online Guidelines for Off-Campus Study published by the Office of International Programs and Off-Campus Study; they are urged to begin planning early in the academic year before that in which they hope to study away, and must complete both a preliminary application in November and a full application in February to request permission to study away. Separately, students apply directly to the university or program they wish to attend. (Application deadlines for individual programs vary considerably; it is the responsibility of the student to determine these deadlines and ensure that they are met.) To be approved for Bowdoin degree credit, the proposed program of study away should satisfy the College's academic standards and form an integral part of a student's overall academic plan. Approval of individual requests may also be affected by the College's concern to maintain a balance between the number of students away during the fall and spring terms.

Students are expected to carry a full course-load in any off-campus study program. Credit earned is not formally transferred until the Office of the Registrar has received and reviewed appropriate documentation from the program. In some cases, it may be required that the appropriate Bowdoin department review the student's completed work.

Bowdoin charges an off-campus study fee (see page 12). Financial aid normally continues to be available for students who qualify.

Depending on their academic needs, students normally are expected to select from the options list of approximately one hundred programs and universities kept by the Office of International Programs and Off-Campus Study, which may be found at bowdoin.edu/ocs/ programs-locations/index.shtml.

Summer: A student may also elect to study abroad during the summer. To transfer credit for courses taken in a summer study-abroad program, a student must gain approval in advance by submitting an Application for Transfer of Credit to the Office of International Programs and Off-Campus Study as well as the Office of the Registrar; refer to Transfer of Credit from Other Institutions on pages 33-34. Financial aid does not transfer for summer study abroad.

## Courses of Instruction

The departments of instruction in the following descriptions of courses are listed in alphabetical order. A schedule containing the meeting times of all courses will be issued before each period of registration. Note that major and minor requirements listed apply to students who matriculate in 2013; other students must follow the major and minor requirements that were in place the year they matriculated.

## Explanation of Symbols Used

[Bracketed Courses]: Courses that are not currently scheduled for a definite semester, but which have been offered within the past two consecutive years, are enclosed in brackets.

* On leave for the fall semester.
** On leave for the spring semester.
$\dagger$ On leave for the entire academic year.
MCSR: Course approved to meet the distribution requirement for Mathematical, Computational, or Statistical Reasoning.
INS: Course approved to meet the distribution requirement for Inquiry in the Natural Sciences.
ESD: Course approved to meet the distribution requirement for Exploring Social Differences.
IP: Course approved to meet the distribution requirement for International Perspectives.
VPA: Course approved to meet the distribution requirement for Visual and Performing Arts.
a: Course approved to meet the division requirement for natural sciences and mathematics.
b: Course approved to meet the division requirement for social and behavioral sciences.
c: Course approved to meet the division requirement for humanities.
Note: For a complete explanation of distribution and division requirements see the Curriculum section on pages 16-20.

Prerequisite: Indicates conditions that must be met in order to register for the course.
Course Numbering. Four-digit course numbers will be used when the new student information system is implemented during the 2013-2014 academic year. (Three-digit course numbers that appear in curly brackets are former course numbers.) Courses are numbered according to the following system:

| $1000-1049\{10-29\}$ | First-year seminars |
| :---: | :--- |
| $1050-1099\{30-99\}$ | Courses intended for the nonmajor |
| $1100-1999\{100-199\}$ | Introductory courses |
| $2000-2969\{200-289\}$ | Intermediate courses and seminars |
| $2970-2998\{291-298\}$ | Intermediate independent studies |
| $2999\{299\}$ | Intermediate collaborative study |
| $3000-3999\{300-399\}$ | Advanced courses and seminars |
| $4000-4079\{401-405$, | Advanced independent studies, advanced collaborative |
| $451-452\}$ | study, senior projects, and honors projects |

## Africana Studies

Tess Chakkalakal, Program Director<br>Glynis Wears-Siegel, Program Coordinator<br>Professor: Olufemi Vaughan (History)<br>Associate Professor: Tess Chakkalakal (English)<br>Assistant Professors: Judith S. Casselberry*, Brian Purnell** (History)<br>Fellow: Laura Premack (Latin American Studies)

Contributing Faculty: Ericka A. Albaugh, Peter Coviello, Guy Mark Foster, David Gordon, David Hecht, Aaron Kitch, Scott MacEachern, Elizabeth Muther, H. Roy Partridge Jr., Patrick J. Rael, Jennifer Scanlon, Hanétha Vété-Congolo, Anthony Walton

The Africana Studies Program is an interdisciplinary field that brings together the humanities and social sciences to study the world from African American and African perspectives. The aim of the program is to introduce students to analytical and critical skills through multiple methodological approaches drawn from anthropology, art history, history, literature, music, political economy, and theater.

## Requirements for the Major in Africana Studies

The major in Africana studies consists of nine interdisciplinary and disciplinary courses in African American, African diaspora, and African studies. The course requirements for the major in Africana studies are outlined in the following categories:

1. Introduction to Africana Studies (Africana Studies 1101 \{101\})
2. Intermediate Seminar in Africana Studies
3. Senior Seminar in Africana Studies (Africana Studies 3301 \{301\})
4. Six additional courses drawn from two tracks in Africana studies. The tracks in Africana studies are: (a) African American Studies (Africana studies courses on the national black experience in the United States); and (b) African and African Diaspora Studies (Africana studies courses on African regional, transregional, and African diaspora themes).
5. Students are required to take at least one course from the track that is not their primary concentration. For example, one course from the African American Studies track will be required of students in the African and African Diaspora Studies track.
6. Independent study and off-campus electives: prospective majors in Africana studies can take a maximum of two courses either as independent study or at other colleges/universities, or students may take one course each from either of these two categories toward one of the tracks in Africana studies. Africana studies majors should consult with the Africana Studies Program director or their Africana studies faculty advisor before making a final decision on study abroad and/or taking courses at other colleges/universities.
7. A first-year seminar in Africana studies will count toward the courses required as electives for the major in Africana studies. A first-year seminar can satisfy either of the two tracks in Africana studies.
8. At least five of the courses from either of the two tracks must be at the intermediate and advanced levels (numbered 2000-2969 \{200-289\} and 3000-3999 \{300-399\}).
9. Courses that will count toward the major must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C- or better in these courses.

For more information and clarification on the major requirements in Africana studies, prospective majors are encouraged to consult with the Africana Studies Program director or a faculty member in the Africana Studies Program by the fall semester of their junior year.

## Requirements for the Minor in Africana Studies

The minor in Africana studies will consist of five disciplinary and interdisciplinary courses in African American, African, and African Diaspora studies. The course requirements for the minor in Africana studies are outlined in the following categories:

1. Introduction to Africana Studies (Africana Studies 1101 \{101\})
2. Four Africana studies elective courses from either of the two Africana studies tracks. Three of these courses must be at the intermediate and advanced levels (numbered 2000-2969 $\{200-289\}$ or $3000-3999\{300-399\})$. Only one of these four electives can be an independent study course or a course taken at another college or university.
3. Courses that will count toward the minor must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C- or better in these courses.
4. A first-year seminar in Africana studies will count toward the minor in Africana studies.

Students considering a minor in Africana studies are encouraged to consult with the Africana Studies Program director by the fall semester of their junior year.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1010 \{10\} b. Racism. Fall 2013. Roy Partridge. (Same as Sociology $1010\{10\}$.)
1012 \{12\} c. Affirmative Action and United States Society. Fall 2015. Brian Purnell.
1019 c. Holy Songs in a Strange Land. Spring 2014. Judith Casselberry. (Same as Music 1011.)
$\mathbf{1 0 2 5}\{\mathbf{2 5 \}}$ c. The Civil War in Film. Fall 2013. Patrick Rael. (Same as History 1016 \{25\}.)
1026 \{16\} c. Fictions of Freedom. Fall 2013. Tess Chakkalakal. (Same as English 1026 \{26\}.)
$1040\{13\}$ c. From Montezuma to Bin Laden: Globalization and Its Critics. Fall 2013.
David Gordon. (Same as History 1040 \{16\}.)

## Introductory, Intermediate, and Advanced Courses

1101 \{101\} c. Introduction to Africana Studies. Every fall. Fall 2013. Tess Chakkalakal.
Focuses on major humanities and social science disciplinary and interdisciplinary African American and African diaspora themes in the context of the modern world. The African American experience discussed in its appropriate historical context, emphasizing its important place in the history of the United States and connections to African diasporic experiences, especially in the construction of the Atlantic world. Material covered chronologically and thematically, building on historically centered accounts of African American, African diaspora, and African experiences. Introduces prospective Africana Studies majors and minors to the intellectually engaging field of Africana Studies; provides an overview of the major theoretical and methodological perspectives in this evolving field; and provides historical context for critical analyses of African American experiences in the United States, and their engagement with the African diaspora.
$1103\{103\}$ c - ESD, VPA. African American Diasporic Dance: From the Ring Shout to Hip-Hop. Spring 2014. Nyama McCarthy-Brown.

Combines dance history, embodied research, and performance. Students engage in readings, class discussions, and movement studies that allow them to learn movement techniques from past eras. Students explore connections between cultural values and norms and movement aesthetics, and discover how African American vernacular dance and jazz music influenced jazz forms and American dance throughout the twentieth century (ragtime, swing, hot jazz, and hip-hop). Culminates with a performance in the December Dance Concert. Students meet once a week in a seminar setting to investigate one dance era, such as swing. The next two class meetings take place in a dance studio in order to embody the dance form discussed that week, and include rehearsals. (Same as Dance 1103 \{103\}.)
1107 \{107\} c - ESD. Introduction to African American Literary Fiction. Spring 2015. Tess Chakkalakal.

Introduces students to the literary and historical aspects of the black novel as it developed in the late nineteenth and early twentieth century in the United States. Begins with a consideration of the novels of Charles Chesnutt, Sutton Griggs, and Pauline Hopkins, then examines the ways in which novelists of the Harlem Renaissance-James Weldon Johnson, Nella Larsen, and W. E. B. Du Bois-played with both the form and function of the novel during this era. Then considers how novels by Richard Wright, Chester Himes, and Ralph Ellison challenged and reformed the black novel's historical scope and aesthetic aims. (Same as English 1107 \{107\}).
1241 \{139\} c. The Civil War Era. Fall 2014. Patrick Rael.
Examines the coming of the Civil War and the war itself in all its aspects. Considers the impact of changes in American society, the sectional crisis and breakdown of the party system, the practice of Civil War warfare, and social ramifications of the conflict. Includes readings of novels and viewing of films. Students are expected to enter with a basic knowledge of American history, and a commitment to participating in large class discussions. (Same as History 1241 \{139\}.)
$1460\{160\}$ c - ESD, IP. Apartheid's Voices: South African History, 1948 to 1994. Fall 2013. David Gordon.

The study of apartheid in South Africa, the system of racial and ethnic segregation that began in 1948 and ended with the first democratic election of Nelson Mandela in 1994. Explores the many different aspects of apartheid: how and why it emerged; its social and economic impacts; its relationship to other forms of segregation and racial-based governance; and how people lived under, resisted, and collaborated with apartheid. Readings, lectures, and class discussions focus on personal South African voices and explore their diverse gendered, ethnic, and racial perspectives. (Same as History 1460 \{160\}.)

1581 \{121\} c - VPA. History of Jazz I. Spring 2014. Tracy McMullen.
A survey of jazz's development from its African American roots in the late nineteenth century through the Swing Era of the 1930s and 1940s, and following the great Swing artists-e.g., Louis Armstrong, Duke Ellington, Billie Holiday, and Benny Goodman-through their later careers. Emphasis is on musical elements, but includes much attention to cultural and historical context through readings and videos. (Same as Music 1281 \{121\}.)
[1592 \{159\} c - ESD, VPA. History of Hip-Hop. (Same as Gender and Women's Studies $1592\{140\}$ and Music 1292 \{140\}.)]

2140 \{236\} c - ESD. The History of African Americans, 1619-1865. Spring 2015. Patrick Rael.

Examines the history of African Americans from the origins of slavery in America through the death of slavery during the Civil War. Explores a wide range of topics, including the establishment of slavery in colonial America, the emergence of plantation society, control and resistance on the plantation, the culture and family structure of enslaved African Americans, free black communities, and the coming of the Civil War and the death of slavery. (Same as History 2140 \{236\}.)
$2141\{237\}$ c - ESD. The History of African Americans from 1865 to the Present. Spring 2014. Patrick Rael.

Explores the history of African Americans from the end of the Civil War to the present. Issues include the promises and failures of Reconstruction, the Jim Crow era, black leadership and protest institutions, African American cultural styles, industrialization and urbanization, the world wars, the Civil Rights Movement, and conservative retrenchment. (Same as History 2141 \{237\}.)
2201 \{201\} c - ESD, VPA. Black Women, Politics, Music, and the Divine. Fall 2014. Judith Casselberry.

Seminar. Examines the convergence of politics and spirituality in the musical work of contemporary Black women singer-songwriters in the United States. Analyzes material that interrogates and articulates the intersections of gender, race, class, and sexuality, generated across a range of religious and spiritual terrains with African diasporic/Black Atlantic spiritual moorings, including Christianity, Islam, and Yoruba. Focuses on material that reveals a womanist (Black feminist) perspective by considering the ways resistant identities shape and are shaped by artistic production. Employs an interdisciplinary approach by incorporating ethnomusicology, anthropology, literature, history, and performance and social theory. Explores the work of Shirley Caesar, the Clark Sisters, Me'shell Ndegeocello, Abby Lincoln, Sweet Honey in the Rock, and Dianne Reeves, among others. (Same as Gender and Women's Studies 2207 \{207\}, Music $2291\{201\}$, and Religion 2201 \{201\}.)

2202 \{202\} c - IP. Demons and Deliverance in the Atlantic World. Fall 2013. Laura Premack.

Seminar. Examines beliefs and practices having to do with evil spirits, demons, and the Devil in Africa, Latin America, the Caribbean, the United States, and Western Europe. The primary focus is exorcism. What is it? How has it been practiced? By whom? Why? The approach to the subject is historical, transnational, and diasporic; examines changes and continuities across the Atlantic over the past five hundred years, beginning with cultural encounters between Africans, Native Americans, and Europeans during the colonial period and continuing up through the reverse missionization and the new African diaspora of the present day. Readings include works of ethnography, anthropology, theology, history, personal narrative, and fiction. (Same as Latin American Studies 2302 \{202\}.)
2208 \{208\} b. Race and Ethnicity. Fall 2013. Ingrid Nelson.
The social and cultural meaning of race and ethnicity, with emphasis on the politics of events and processes in contemporary America. Analysis of the causes and consequences of prejudice and discrimination. Examination of the relationships between race and class.

Comparisons among racial and ethnic minorities in the United States. (Same as Latin American Studies 2708 \{278\} and Sociology 2208 \{208\}.)

Prerequisite: Sociology 1101 \{101\}, Africana Studies 1101 \{101\}, or Anthropology 1101 $\{101\}$, or permission of the instructor.
$2210\{210\}$ c. Beyond Capoeira: History and Politics of Afro-Brazilian Culture. Spring 2014. Laura Premack.

Seminar. Brazil has the largest population of African descent outside Africa. Nowadays, Brazilians pride themselves on their country's unique racial and cultural heritage, but for centuries, many Afro-Brazilian practices were illegal. The Afro-Brazilian renaissance currently underway is something to be celebrated, but it is also something to be questioned. Do these efforts to delineate, praise, and preserve Afro-Brazilian culture actually limit understanding of it? Has labeling certain aspects of Brazilian cultural heritage as African created a situation in which other ways that Africa has influenced Brazil are overlooked? Just what is meant by "African" and "Brazilian" anyhow? Takes a historical and anthropological approach to these and other related questions. (Same as History $2871\{200\}$ and Latin American Studies 2110 \{221\}.)
$2220\{220\}$ b - ESD. "The Wire": Race, Class, Gender, and the Urban Crisis. Spring 2015. Brian Purnell.

Postwar U.S. cities were considered social, economic, political, and cultural zones of "crisis." African Americans-their families; gender relations; their relationship to urban political economy, politics, and culture-were at the center of this discourse. Using David Simon's epic series, The Wire, as a critical source on postindustrial urban life, politics, conflict, and economics, covers the origins of the "urban crisis," the rise of an "underclass" theory of urban class relations, the evolution of the urban "underground economy," and the ways the "urban crisis" shaped depictions of African Americans in American popular culture. (Same as Gender and Women's Studies $2222\{222\}$ and Sociology $2220\{220\}$.)
Prerequisite: One of the following: Africana Studies 1101 \{101\}, Education 1101 \{101\}, Gender and Women's Studies 1101 \{101\}, or Sociology $1101\{101\}$, or permission of the instructor.
2228 \{228\} c - ESD, VPA. Protest Music. Spring 2015. Judith Casselberry.
Focuses on the ways black people have experienced twentieth-century events. Examines social, economic, and political catalysts for processes of protest music production across genres including gospel, blues, folk, soul, funk, rock, reggae, and rap. Analysis of musical and extra-musical elements' style, form, production, lyrics, intent, reception, commodification, mass media, and the Internet. Explores ways in which people experience, identify, and propose solutions to poverty, segregation, oppressive working conditions, incarceration, sexual exploitation, violence, and war. (Same as Anthropology 2227 \{227\} and Music 2292 \{227\}.)

2232 \{232\} c - VPA. Jazz II: Repertory and Performance. Spring 2016. The Theater and Dance Department.
Intermediate repertory students are required to take Dance 2231 \{231\} (same as Africana Studies $2234\{235\}$ ) concurrently. Attendance at all classes is required. Grading is Credit/D/ Fail. One-half credit. (Same as Dance 2232 \{232\}.)
[2233 \{233\} b - ESD, IP. Peoples and Cultures of Africa. (Same as Anthropology 2533 \{233\}.)]

2234 \{235\} c - VPA. Jazz II: Technique. Spring 2016. The Theater and Dance Department.
Extends students' technical proficiency by increasing practice in jazz dance styles and intricate combinations; students learn dance technique along with the appropriate historical and cultural contexts. Includes vocabulary and variations of jazz and focuses on its roots in social dance heavily influenced by African American traditions. Students have the opportunity to embody various jazz styles such as vintage jazz, Broadway jazz, lyrical jazz, and the jazz techniques of Bob Fosse and Luigi. A series of dance exercises and combinations teach jazz isolations, syncopation, musicality, and performance skills. Through this ongoing physical practice, students gain strength, flexibility, endurance, coordination, and style. Includes a performance requirement and several readings. Attendance at all classes required. Grading is Credit/D/Fail. One-half credit. (Same as Dance 2231 \{231\}.)
Prerequisite: Dance $1211\{111\}$ or $1221\{121\}$ or permission of the instructor.

## 2235 \{242\} c - ESD, IP. Global Pentecostalism: The Roots and Routes of TwentiethCentury Christianity. Spring 2014. Judith Casselberry.

Seminar. Pentecostalism is a form of Christianity centered on the gifts of the Holy Spirit. Pentecostals speak in tongues, heal, prophesize, see visions, and exorcise demons. By many accounts, Pentecostalism is the fastest-growing religion in the world. While the Pentecostal population is difficult to count, current estimates place the world's total number of adherents at close to 600 million, of whom $75 \%$ are women. With particular attention to its intersections with gender, ethnicity, and class, explores the religion's appeal; its impact on devotees' lives; and resultant local, regional, and global implications. Case studies include the Americas, the Caribbean, and Africa. (Same as Gender and Women's Studies 2229 and Religion 2247 \{247\}.)
2240 \{240\} c. Civil Rights and Black Power Movements in the Making of Modern America. Spring 2015. Brian Purnell.

Examines the political activism, cultural expressions, and intellectual history that gave rise to a modern Black freedom movement, and that movement's impact on the broader American (and international) society. Students study the emergence of community organizing traditions in the southern black belt as well as postwar black activism in U.S. cities; the role the federal government played in advancing civil rights legislation; the internationalism of African American activism; and the relationship between black culture, aesthetics, and movement politics. The study of women and gender is a central component. Using biographies, speeches, and community and organization studies, students analyze the lives and contributions of Martin Luther King Jr., Ella Baker, Septima Clark, Malcolm X, Stokely Carmichael, Angela Davis, Huey Newton, and Fannie Lou Hamer, among others. Closely examines the legacies of the modern Black freedom movement: the expansion of the Black middle class, controversies over affirmative action, and the rise of Black elected officials. (Same as History 2220 \{228\}.)

2271 \{271\} c - ESD. Spirit Come Down: Black Women and Religion. Spring 2015. Judith Casselberry.
Explores issues of self-representation, memory, material culture, embodiment, and civic and political engagement through autobiographical, historical, literary, anthropological, cinematic, and musical texts. Primarily focused on Christian denominations: Methodist, Baptist, and Pentecostal. Examines the religious lives of black women in nineteenth- and twentieth-century America. (Same as Gender and Women's Studies $2270\{270\}$ and Religion 2271 \{271\}.)
[2362 \{262\} c - ESD, IP. Africa and the Atlantic World, 1400-1880. (Same as History 2362 \{262\}.)]
$2364\{264\}$ c - ESD, IP. Conquest, Colonialism, and Independence: Africa since 1880. Spring 2014. David Gordon.

Focuses on conquest, colonialism, and its legacies in sub-Saharan Africa; the violent process of colonial pacification, examined from European and African perspectives; the different ways of consolidating colonial rule and African resistance to colonial rule, from Maji Maji to Mau Mau; and African nationalism and independence, as experienced by Africa's nationalist leaders, from Kwame Nkrumah to Jomo Kenyatta, and their critics. Concludes with the limits of independence, mass disenchantment, the rise of the predatory post-colonial state, genocide in the Great Lakes, and the wars of Central Africa. (Same as History 2364 \{264\}.)
[2365 \{268\} c - IP. Mogadishu to Madagascar: East African History. (Same as History 2365 \{265\}.)]
2380 \{247\} c - IP. Christianity and Islam in West Africa. Fall 2013. Olufemi Vaughan.
Explores how Christianity, Islam, and indigenous African religious beliefs shaped the formation of West African states, from the nineteenth-century Islamic reformist movements and mission Christianity to the formation of modern nation-states in the twentieth century. While the course provides a broad regional West African overview, careful attention is focused on how religious themes shaped the communities of the Nigerian region-a critical West African region where Christianity and Islam converged to transform a modern state and society. Drawing on primary and secondary historical texts as well as Africanist works in sociology and comparative politics, study of this Nigerian experience illuminates broader West African, African, and global perspectives that underscore the historical significance of religion in politics and society, especially in non-Western contexts. (Same as History 2380 \{208\}.)

2407 \{207\} c - ESD, IP. Francophone Cultures. Every fall. Fall 2013. Hanétha Vété-Congolo.

An introduction to the cultures of various French-speaking regions outside of France. Examines the history, politics, customs, cinema, and the arts of the Francophone world, principally Africa and the Caribbean. Conducted in French. (Same as French $2407\{207\}$ and Latin American Studies 2407 \{206\}.)
Prerequisite: French 2305 \{205\} or higher, placement in French 2407, or permission of the instructor.

## 2411 \{209\} c - ESD, IP. Introduction to the Study and Criticism of Francophone

Literature. Every spring. Spring 2014. Hanétha Vété-Congolo.
Introduces students to the literary tradition of the Francophone world. Focuses on major authors and literary movements in historical and cultural context. Conducted in French. (Same as French 2411 \{211\} and Latin American Studies 2211 \{213\}.)

Prerequisite: French $2305\{205\}$ or higher, or permission of the instructor.
2504 c. Nineteenth-Century American Fiction. Spring 2014. Tess Chakkalakal.
Historical survey of nineteenth-century American fiction, including works by Washington Irving, Catherine Sedgwick, Herman Melville, Nathaniel Hawthorne, Frank Webb, Harriet Beecher Stowe, William Wells Brown, Mark Twain, Frank Norris, Henry James, John DeForest, Edith Wharton, William Dean Howells, and Charles Chesnutt. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2504.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.
[2530 \{222\} b - IP. Politics and Societies in Africa. (Same as Government $2530\{222\}$.)]
2580 \{258\} c - ESD. Reconstructing the Nation. Fall 2014. Tess Chakkalakal.
Introduces students to American literature written between 1865 and 1910. Exploring a period marked by the end of the Civil War, Reconstruction, the "New" South, and Jim Crow, students engage with these historical developments through a reading of a wide range of novels, short stories, poems, and plays that take up political tensions between the North and South as well as questions of regional, racial, and national identity. Focuses on works by George Washington Cable, Charles Chesnutt, Lydia Maria Child, Sarah Orne Jewett, Mark Twain, Sutton E. Griggs, Emily Dickinson, Paul Laurence Dunbar, Henry James, Theodore Dreiser, and Frank Norris that constitute the "major" literary voices of the period; but also examines a number of "minor" works that are similarly, but perhaps more narrowly, concerned with questions of race and nation. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2580 \{258\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.

2583 \{283\} c. Literature of the Civil War Era. Spring 2015. Tess Chakkalakal.
Examines literature published in the United States between 1861 and 1865, with particular emphasis on the wartime writings of Louisa May Alcott, William Wells Brown, Frederick Douglass, William Gilmore Simms, Herman Melville, and Walt Whitman. Students also consider writings of less well-known writers of the period found in popular magazines such as Harper's Monthy, The Atlantic Monthly, The Southern Illustrated News, and Frank. Leslie's Illustrated Newspaper. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2583 \{264\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2584 c. The Afterlives of Uncle Tom. Spring 2014. Tess Chakkalakal and Peter Coviello.
Considers the intertwined fates of slavery and sentiment in the lead-up to, and the years following, the Civil War. At its center is Harriet Beecher Stowe's 1852 Uncle Tom's Cabin. Tracks the ramifying effects of this antebellum mega-bestseller, in such disparate realms as literary and print culture, political counter-publics, and law. Explores in particular how responses to the novel in Southern, British, and African-American literary discourses ring complex changes on the major tropes of Stowe's novel, and on the received wisdom about Uncle Tom that persists into today. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2584.)

2603 \{270\} c - ESD. African American Fiction: Humor and Resistance. Fall 2013. Elizabeth Muther.

Explores rich traditions of African American humor in fiction, comics, graphic narratives, and film. Considers strategies of cultural survival and liberation, as well as folkloric sources, trickster storytellers, comic double-voicing, and the lampooning of racial ideologies. Close attention paid to modes of burlesque, satirical deformation, caricature, tragicomedy, and parody in historical and contemporary contexts, including such writers and performers as Charles Chesnutt, Bert Williams, Langston Hughes, Zora Neale Hurston, Richard Pryor, Ishmael Reed, Aaron McGruder, Dave Chappelle, and Suzan-Lori Parks. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2603 \{270\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.
[2621 \{238\} c. Reconstruction. (Same as History 2621 \{238\}.)]
$2630\{263\}$ c. Staging Blackness. Spring 2014. Guy Mark Foster.
Examines the history and contributions of African Americans to United States theater from the early blackface minstrel tradition, to the revolutionary theater of the Black Arts writers, to more recent postmodernist stage spectacles. Among other concerns, such works often dramatize the efforts of African Americans to negotiate ongoing tensions between individual needs and group demands that result from historically changing forms of racial marginalization. Highlights in particular what Kimberly Benston has termed the "expressive agency" with which black writers and performers have imbued their theatrical presentations. Potential authors studied include: Zora Neale Hurston, Langston Hughes, Lorraine Hansberry, Amiri Baraka, Ron Milner, Adrienne Kennedy, Ntozake Shange, George C. Wolfe, Anna Deavere Smith, Afro Porno Homos, and August Wilson. (Same as English 2654 \{263\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.

2651 \{276\} c - ESD. Queer Race. Fall 2013. Guy Mark Foster.
How does the concept of "queerness" signify in cultural texts that are ostensibly about the struggle for racial equality? And vice versa, how does the concept of "racialization" signify in cultural texts that are ostensibly about the struggle for LGBT recognition and justice? While some of this work tends to reduce "queer" to traditional sexual minorities like lesbigay and trans folk while downplaying racial considerations, others tend to limit the category "race" to people of color like blacks while downplaying questions about sexuality. Such critical and creative gestures often place "queer" and "race" in opposition rather than as intersecting phenomena. Students examine the theoretical and cultural assumptions of such gestures, and their implications, through close readings of selected works in both the LGBT and African American literary traditions. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2651 \{276\} and Gay and Lesbian Studies 2651 \{276\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English, Africana studies, or gay and lesbian studies.
$2700\{244\}$ c - ESD. Martin, Malcolm, and America. Fall 2014. Brian Purnell.
Seminar. Examines the lives and thoughts of Martin L. King Jr. and Malcolm X. Traces the development in their thinking and examines the similarities and differences between them. Evaluates their contribution to the African American freedom struggle, American society, and the world. Emphasizes very close reading of primary and secondary material, use of audio and videocassettes, lecture presentations, and class discussions. In addition to being an academic study of these two men's political and religious commitment, also concerns how they inform our own political and social lives. (Same as History 2700 \{279\}.)
[2821 \{269\} c - ESD, IP. After Apartheid: South African History and Historiography. (Same as History 2821 \{269\}.)]
[2822 \{272\} c - IP. Warlords and Child Soldiers in African History. (Same as History $2822\{272\}$. .]
$2840\{213\}$ c. Transnational Africa and Globalization. Fall 2013. Olufemi Vaughan.
Seminar. Drawing on key readings on the historical sociology of transnationalism since World War II, examines how postcolonial African migrations transformed African states and their
new transnational populations in Western countries. Discusses what concepts such as the nation state, communal identity, global relations, and security mean in the African context in order to critically explore complex African transnational experiences and globalization. These dynamic African transnational encounters encourage discussions on homeland and diaspora, tradition and modernity, gender and generation. (Same as History 2840 \{213\}.)

2841 \{216\} c. History of African and African Diasporic Political Thought. Spring 2014. Olufemi Vaughan.

Seminar. Critically discusses some seminal works in African diaspora and African political thought in the nineteenth and twentieth centuries. Organized around global and national currents that will allow students to explore intersections in pan-African, African American, and African political thought in the context of Atlantic and global histories. Seminar topics divided into three major historic moments. The first explores major themes on Atlantic slavery and Western thought, notably slavery and racial representation, slavery and capitalism, and slavery and democracy. The second focuses on the struggle of African Americans, Africans, and West Indians for freedom in post-Abolition and colonial contexts. Topics discussed within twentieth-century national, regional, and global currents include reconstruction and industrialization, pan-Africanism, new negro, negritude, colonialism, nationalism. Finally, explores pan-African and African encounters in the context of dominant postcolonial themes, namely decolonization, Cold War, state formation, imperialism, African diaspora feminist thought, and globalism. Discusses these foundational texts and the political thoughts of major African, African American, and Caribbean intellectuals and activists in their appropriate historical context. (Same as History 2841 \{216\}.)
[2870 \{239\} c. Comparative Slavery and Emancipation. (Same as History 2870 \{239\}.)]
2970-2973 \{291-294\}. Intermediate Independent Study in Africana Studies. The Program.
2999 \{299\}. Intermediate Collaborative Study in Africana Studies. The Program.
3019 \{339\} c. The End of Blackness? Fall 2013. Guy Mark Foster.
Seminar. What makes a work of literature "black"? Is it the fact that its author can be clearly identified in racial terms, its subject matter, or its main characters? What if only one of these things can be determined, but not the others? How have the passing of Jim Crow segregation, the election of the first African American president, and changing racial norms impacted the coherence and legibility of the African American literary tradition? Students engage scholarly debates on these matters, as well as analyze past and present works of literature that aid us in examining some of the key assumptions that have (re)defined the field, including questions of literary mode, genre, and style. Possible authors include Toni Morrison, Percival Everett, Colson Whitehead, Debra Dickerson, among others. (Same as English 3019 \{339\}.)

Prerequisite: One course numbered 2000-2969 \{200-289\} in English or Africana studies, or permission of the instructor.

3140 \{336\} c. Research in Nineteenth-Century United States History. Spring 2014. Patrick Rael.

A research course for majors and interested non-majors that culminates in a single 25- to 30-page research paper. With the professor's consent, students may choose any topic in Civil War or African American history, broadly defined. This is a special opportunity to delve into Bowdoin's rich collections of primary historical source documents. (Same as History 3140 \{336\}.)

Prerequisite: One course in history.
$3201\{321\}$ c. Voices of Women, Voices of the People. Spring 2014. Hanétha Vété-Congolo.
Focuses on texts written by women from former West Africa and the Caribbean. Themes treated-womanhood, colonization, slavery, race, individual and collective identity, relationships between men and women, independence, tradition, modernism, and alienationare approached from historical, anthropological, political, social, and ideological perspectives. Readings by Mariama Bâ, Aminata Sow Fall (Sénégal); Tanella Boni (Côte d'Ivoire); Maryse Condé, Gisèle Pineau, Simone Schwartz-Bart (Guadeloupe); Ina Césaire, Fabienne Kanor, Suzanne Dracius (Martinique); and Marie Chauvet, Marie-Célie Agnant, and Kettly Mars (Haïti). (Same as French 3201 \{322\}, Gender and Women's Studies 3323 \{323\}, and Latin American Studies 3222 \{322\}.)

Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies 2407 \{206\}) or 2408 \{208\}; French 2409 \{209\}, $2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.

3301 \{301\} c. Senior Seminar in Africana Studies. Spring 2014. Olufemi Vaughan.
Students conduct intensive research on a major topic in Africana studies that they have explored during the course of their academic experience in the Africana Studies Program. Students required to apply rigorous humanities and social science theories and concepts to African American, African, or African diaspora themes in the formation of their final research projects. Students required to give regular presentations of their research projects to Africana studies faculty and students.

Prerequisite: Africana Studies $1101\{101\}$ and one course numbered 2000-2969 \{200-289\} in Africana studies.

3306 c. The Common Good? A History of International Aid. Spring 2014. David Gordon.
The history of international aid to the "third world" through the twentieth century. Seminar considers the imperial mission and white man's burden, aid during modern colonialism, the post-colonial aid community, the Bretton Woods Institutions, the rise of small-scale NGO aid interventions, aid in modern warfare, and the varied contemporary impacts of aid. Readings focus on Africa, along with examples from Latin America and South Asia. Participants should have some background in the history of at least one of these regions. Each student will write an original research paper on the history of an aid project. (Same as History 3360.)

Prerequisite: One course in history, Africana studies, Asian studies, or Latin American studies; or permission of the instructor.
[3317 \{317\} c. Childhood Memories: Reflections on Self and Home in the Postcolonial Francophone Caribbean. (Same as French 3209 \{317\} and Latin American Studies 3217 \{317\}.)]
[3320 \{320\} c. Beyond the Postcard: The Hispanic Caribbean. (Same as Latin American Studies $3220\{320\}$ and Spanish $3220\{320\}$. .)]
3362 c. Spiritual Encounters: African Religion in the Americas. Spring 2014. Laura Premack.

Investigates how African, European, and indigenous beliefs about the spirit world have combined in the development of African diasporic religion in the Americas. Historicizes and theorizes the development of several varieties, focusing particularly on Candomblé, Umbanda, and Spiritism in Brazil. Also considers Santería in Cuba, the Dominican Republic, and New

York; Vodun in Haïti; Hoodoo in the Mississippi Delta; and Obeah in Jamaica and Guyana. Explores concepts of syncretism, hybridity, cultural encounter, identity, performance, and diaspora. (Same as Latin American Studies 3362. )

Prerequisite: One course in Africana studies or Latin American studies, or permission of instructor.

4000-4003 \{401-404\}. Advanced Independent Study in Africana Studies. The Program. 4029 \{405\}. Advanced Collaborative Study in Africana Studies. The Program.

4050-4051. Honors Project in Africana Studies. The Program.

## Arabic

Lecturer: Russell J. Hopley
$1101\{101\}$ c. Elementary Arabic I. Fall 2013. Russell Hopley.
An introductory course that presumes no previous knowledge of Arabic. Students begin to acquire an integrated command of speaking, reading, writing, and listening skills in Modern Standard Arabic. Some exposure to Egyptian Colloquial Arabic as well. Class sessions conducted primarily in Arabic.

1102 \{102\} c. Elementary Arabic II. Spring 2014. Russell Hopley.
A continuation of Elementary Arabic I, focuses on further developing students' skills in speaking, listening, comprehending, writing, and reading Modern Standard Arabic.

Prerequisite: Arabic 1101 \{101\}].
2203 \{203\} c. Intermediate Arabic I. Fall 2013. Russell Hopley.
A continuation of first-year Arabic, aiming to enhance proficiency in listening, speaking, reading, and writing through the study of more elaborate grammar structures and exposure to more sophisticated, authentic texts.

Prerequisite: Arabic 1102 \{102 $\}$.
2204 \{204\} c. Intermediate Arabic II. Spring 2014. Russell Hopley.
A continuation of Intermediate Arabic I; provides students with a more in-depth understanding of Modern Standard Arabic. Aims to enhance proficiency in speaking, listening, reading, and writing through the study of more elaborate grammatical structures and sophisticated, authentic texts. Textbook material supplemented by readings from the Qur'an, the hadith, and early Arabic poetry.
Prerequisite: Arabic 2203 \{203\}.
2970-2973 \{291-294\} c. Intermediate Independent Study in Arabic.
2999 \{299\} c. Intermediate Collaborative Study in Arabic.

Art<br>Pamela M. Fletcher, Department Chair and Director, Art History Division<br>James Mullen, Director, Visual Arts Division<br>Martha R. Janeway, Coordinator, Art History Division<br>Alicia Menard, Coordinator, Visual Arts Division<br>Professors: Pamela M. Fletcher, Mark C. Wethli<br>Associate Professors: Michael Kolster**, James Mullen, Stephen Perkinson, Susan E. Wegner<br>Assistant Professors: Alicia Eggert, Carrie Scanga, Peggy Wang (Asian Studies)<br>Lecturer: Natasha Goldman<br>Sculptor in Residence: John B. Bisbee<br>Visiting Faculty: Susan B. Bakewell, Jessica Gandolf, Julie Anne Poitras Santos<br>Fellows: Dana E. Byrd, April Morris

The Department of Art comprises two programs: art history and visual arts. Majors in the department are expected to elect one of these programs. The major in art history is devoted primarily to the historical and critical study of the visual arts as an embodiment of some of humanity's cultural values and a record of the historical interplay of sensibility, thought, and society. The major in visual arts is intended to encourage a sensitive development of perceptual, creative, and critical abilities in visual expression.

## Requirements for the Major in Art History

The art history major consists of ten courses, excluding first-year seminars. Required are:

1. Art History $1100\{100\}$;
2. One course in African, Asian, or pre-Columbian art history numbered $1103\{103\}$ or higher;
3. One course from Art History $2090\{209\}$ (same as Archeology $1101\{101\}$ ), $2100\{210\}$ (same as Archeology $1102\{102\}$ ), $2130\{213\}, 2140\{214\}, 2150\{215\}$, or $2260\{226\}$;
4. One course from Art History $2220\{222\}, 2230\{223\}, 2240\{224\}$, or $2320\{232\}$;
5. One course from Art History $2420\{242\}, 2520\{252\}, 2540\{254\}, 2620\{262\}$, or 2640 \{264\};
6. One additional intermediate course (numbered 2000-2969 \{200-289\});
7. Two advanced seminars (numbered 3000-3999 \{300-399\}); and
8. Two additional art history courses numbered higher than $1101\{101\}$, one of which may be an independent study.

Art history majors are also encouraged to take courses in foreign languages and literature, history, philosophy, religion, and the other arts.

## Interdisciplinary Majors

The department participates in interdisciplinary programs in art history and archaeology and in art history and visual arts. See page 216.

## Requirements for the Minor in Art History

The minor consists of five courses, excluding first-year seminars. Required courses are Art

History 1101 \{100\}; two intermediate courses (numbered 2000-2969 \{200-289\}); one advanced course (numbered 3000-3999 \{300-399\}); and one additional art history course numbered higher than $1100\{100\}$.

Courses that will count toward the major and minor must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C- or better in these courses.

The major and the minor in visual arts are described on page 56.

## Courses in the History of Art

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1019 \{19\} c. Representing the Modern Artist in Word and Image. Fall 2013. Susan B. Bakewell.

1026 \{26\} c. Art and the Public Sphere. Fall 2013. Natasha Goldman.

## Introductory, Intermediate, and Advanced Courses

$1100\{\mathbf{1 0 0 \}}$ c. Introduction to Art History. Spring 2014. Pamela Fletcher, Peggy Wang, and Susan Wegner.

An introduction to the study of art history. Provides a chronological overview of art primarily from Western and East Asian traditions. Considers the historical context of art and its production, the role of the arts in society, problems of stylistic tradition and innovation, and points of contact and exchange between artistic traditions. Equivalent of Art History 101 as a major or minor requirement. Not open to students who have credit for Art History 101.
$1300\{130\}$ c - IP. Introduction to the Arts of Ancient Mexico and Peru. Spring 2014. Susan Wegner.

A chronological survey of the arts created by major cultures of ancient Mexico and Peru. Mesoamerican cultures studied include the Olmec, Teotihuacan, the Maya, and the Aztec up through the arrival of the Europeans. South American cultures such as Chavín, Nasca, and Inca are examined. Painting, sculpture, and architecture considered in the context of religion and society. Readings in translation include Mayan myth and chronicles of the conquest. (Same as Latin American Studies 1330 \{130\}.)
$2090\{209\}$ c. Introduction to Greek Art and Archaeology. Fall 2013. James A. Higginbotham.

Introduces the techniques and methods of classical archaeology as revealed through an examination of Greek material culture. Emphasis upon the major monuments and artifacts of the Greek world from prehistory to the Hellenistic age. Architecture, sculpture, fresco painting, and other "minor arts" are examined at such sites as Knossos, Mycenae, Athens, Delphi, and Olympia. Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Greek world. (Same as Archaeology 1101 \{101\}.)

2100 \{210\} c. Introduction to Roman Archaeology. Fall 2014. James A. Higginbotham.
Surveys the material culture of Roman society, from Italy's prehistory and the origins of the Roman state through its development into a cosmopolitan empire, and concludes with
the fundamental reorganization during the late third and early fourth centuries of our era. Lectures explore ancient sites such as Rome, Pompeii, Athens, Ephesus, and others around the Mediterranean. Emphasis upon the major monuments and artifacts of the Roman era: architecture, sculpture, fresco painting, and other "minor arts." Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Roman world. (Same as Archaeology 1102 \{102\}.)
$2130\{213\}$ c - VPA. Art of Three Faiths: Christian, Jewish, and Islamic Art and Architecture, from the Third to the Twelfth Century. Fall 2013. April Morris.

Examines ways images, objects, and buildings shaped the experiences and expressed the beliefs of members of three major religious traditions (Christianity, Judaism, and Islam) in Europe and the Mediterranean region. Deals with artworks spanning the third century through the twelfth century from Europe, the Middle East, North Africa, and the Byzantine Empire. Includes thematic sessions, dealing with issues that cut across geographic and chronological boundaries. Topics include the embrace or rejection of a classical artistic heritage; the sponsorship of religious art by powerful figures; the use of images and architecture to define community and to reject those defined as outsiders; forms of iconoclasm and criticism of the use of images among the three religions; theological justifications for the use of images; and the role of images in efforts to convert or conquer members of another faith.

Prerequisite: Art History $1100\{100\}$, placement above Art History $1100\{100\}$, or permission of the instructor.

## [2150 \{215\} c. Illuminated Manuscripts and Early Printed Books.]

2230 \{223\} c - VPA. The Arts of Venice. Spring 2014. Susan Wegner.
Venice is distinctive among Italian cities for its political structures, its geographical location, and its artistic production. This overview of Venetian art and architecture considers Venice's relationships to Byzantium and the Turkish east; Venetian colorism in dialogue with TuscanRoman disegno; and the role of women as artists, as patrons, and as subjects of art. Includes art by the Bellini family, Giorgione, Titian, Veronese, Tintoretto, Tiepolo, Canaletto, and Rosalba Carriera, and the architecture of Palladio.
$2240\{224\}$ c - VPA. Mannerism. Fall 2013. Susan Wegner.
Mannerism in art and literature. Artists include Michelangelo, Pontormo, Rosso, Bronzino, El Greco. Themes include fantasy and imagination, ideal beauty (male and female), the erotic and grotesque, and the challenging of High Renaissance values. Readings include artists' biographies, scientific writings on the senses, formulas for ideal beauty, and description of court life and manners. Uses the Bowdoin College Museum of Art's collection of sixteenthcentury drawings, prints, and medals.
[2260 \{226\} c - VPA. Northern European Art of the Fifteenth and Sixteenth Centuries.]
[2320 \{232\} c. Art in the Age of Velázquez, Rembrandt, and Caravaggio.]
[2430 \{243\} c - VPA. Modern Architecture: 1750 to 2000. (Same as Environmental Studies $2431\{243\})$.
[2440 \{244\} c. Shoot, Snap, Instagram: A History of Photography in America.]
[2510 \{251\} c. Victorian Art.]
[2540 \{254\} c. Contemporary Art.]
$2620\{262\}$ c. American Art I: Colonial Period to the Civil War. Fall 2013. Dana E. Byrd.
A survey of American architecture, sculpture, painting, and decorative arts from their colonial origins to the eve of the Civil War. Emphasis on understanding art in its historical and cultural context. Issues to be addressed include encounters between diverse cultures, the transition from colony to nation, the rise and ideological significance of landscape painting, and the creation of art for a democracy. This class will work with original objects in the Bowdoin College Museum of Art.

## [2640 \{264\} c. American Art from the Civil War to 1945.]

2710 c. Power and Politics in Pre-Modern Chinese Art. Spring 2014. Peggy Wang.
Introduces students to Chinese art from the First Emperor's terracotta warriors in the third century BCE to the waning of the country's dynastic history in the nineteenth century CE. Following a chronological sequence, explores key mortuary spaces, religious objects, court art, and landscape painting with emphasis on themes of power and politics. Emphasis is placed on understanding changing art formats and functions in relation to socio-cultural contexts, such as shifts in belief systems, foreign imperial patronage, and the rise of literati expression. Readings include primary sources such as ancestral rites, Buddhist doctrines, imperial proclamations, and Chinese painting treatises. (Same as Asian Studies 2020.)
[2720 \{272\} c - IP, VPA. The Arts of Japan. (Same as Asian Studies 2281 \{209\}.)]
2970-2973 \{291-294\} c. Intermediate Independent Study in Art History. Art History Faculty.

2999 \{299\} c. Intermediate Collaborative Study in Art History. Art History Faculty.

## Seminars in Art History

The seminars are intended to utilize the scholarly interests of members of the department and provide an opportunity for advanced work for selected students who have successfully completed enough of the regular courses to possess a sufficient background. The department does not expect to give all, or in some cases any, seminars in each semester. As the seminars are varied, a given topic may be offered only once, or its form changed considerably from time to time.
$3120\{312\}$ c. The West and Its Easts: Forms and Fantasy from Pliny to Ingres. Fall 2013. April Morris.

From the time of the ancient Romans, the Mediterranean has been a place of interactions between Europe, defined as "the West," and the rest of the world, understood broadly as "the East." Investigates the range of ways in which the West envisioned, encountered, appropriated, and idealized the East from the era of the Roman Empire to the nineteenth century. Explores the cultural needs, fears, and concerns that shaped the depiction of the East in manuscripts, sculptural programs, trade objects, icons, relics, and in texts. Special attention is paid to Western definitions and depictions of the Islamic world, particularly from the age of the Crusades through the fantasy-enriched images of Ottoman courts in Orientalist works like Ingres's Grande Odalisque.

Prerequisite: Art History $1100\{100\}$, placement above Art History $1100\{100\}$, or permission of the instructor.
[3200 \{320\} c. Historicizing Contemporary Chinese Art. (Same as Asian Studies $3070\{311\}$. .]
[3240 \{324\} c. Art and Life of Michelangelo.]
$3320\{332\}$ c. Painting and Society in Spain: El Greco to Goya. Fall 2013. Susan Wegner.
Focuses on painting in Spain from the fifteenth century to the early nineteenth century, with special emphasis on the works of El Greco, Velázquez, and Goya. Examines art in the light of Spanish society, particularly the institutions of the church and Spanish court. Considers Spanish mysticism, popular custom, and Enlightenment ideals as expressed in or critiqued by art. Readings in the Bible, Spanish folklore, artistic theory, and artists' biographies.

Prerequisite: Art History $1100\{100\}$, placement above Art History $1100\{100\}$, or permission of the instructor.
[3840 \{384\} c. Bad Art: An Alternative History of Modern and Contemporary Art.] 4000-4003 \{401-404\} c. Advanced Independent Study in Art History. Art History Faculty. $4029\{405\}$ c. Advanced Collaborative Study in Art History. Art History Faculty. 4050-4051 c. Honors Project in Art History. Art History Faculty.

## Visual Arts

## Requirements for the Major in Visual Arts

The major consists of eleven courses, which must include Visual Arts 1101 \{150\}; either 1201 or $1401\{170$ or 180$\}$; either 1501 or 1601 \{190 or 195$\}$; and $3902\{395\}$. Five additional visual arts courses must be taken, one of which must be numbered 3000-3999 \{300-399\}, and no more than one of which may be an independent study course. Two courses in art history are also required.

## Requirements for the Minor in Visual Arts

The minor consists of six courses, which must include Visual Arts $1101\{150\}$ and one of $1201\{170\}, 1401\{180\}, 1501\{190\}$, or $1601\{195\}$. Three additional visual arts courses must be taken, no more than one of which may be an independent study course. One course in art history is also required.

Courses that will count toward the major and minor must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C- or better in these courses.

Visual arts courses without prerequisites are frequently oversubscribed; registration preference is then given to first- and second-year students, as well as to juniors and seniors fulfilling requirements of the visual arts major or minor.

1101 \{150\} c - VPA. Drawing I. Fall 2013. Jessica Gandolf and James Mullen. Spring 2014. James Mullen and Mark Wethli.

An introduction to drawing, with an emphasis on the development of perceptual, organizational, and critical abilities. Studio projects entail objective observation and analysis of still-life, landscape, and figurative subjects; exploration of the abstract formal organization of graphic expression; and the development of a critical vocabulary of visual principles. Lectures and group critiques augment studio projects in various drawing media.

1201 \{170\} c - VPA. Printmaking I. Fall 2013 and Spring 2014. Carrie Scanga.
An introduction to printmaking, including etching, drypoint, engraving, monotype, and relief printing methods. Studio projects develop creative approaches to perceptual experience and visual expression that are uniquely inspired by printmaking. Attention is also given to historical and contemporary examples and uses of the medium.
$1301\{160\}$ c. Painting I. Fall 2013. James Mullen. Spring 2014. Mark Wethli.
An introduction to painting, with an emphasis on the development of perceptual, organizational, and critical abilities. Studio projects entail objective observation and analysis of still-life, landscape, and figurative subjects; exploration of the painting medium and chromatic structure in representation; and the development of a critical vocabulary of painting concepts. Lectures and group critiques augment studio projects in painting media.

Prerequisite: Visual Arts 1101 \{150\}.
1401 \{180\} c - VPA. Photography I. Fall 2013. Michael Kolster. Spring 2014. Visual Arts Faculty.

Photographic visualization and composition as consequences of fundamental techniques of black-and-white still photography. Class discussions and demonstrations, examination of masterworks, and field and laboratory work in 35 mm format. Students must provide their own 35 mm non-automatic camera.

1601 \{195\} c - VPA. Sculpture I. Fall 2013. John Bisbee. Spring 2014. Alicia Eggert.
An introduction to sculpture, with emphasis on the development of perceptual, organizational, and critical abilities. Studio projects entail a variety of sculptural approaches, including exploration of the structural principles, formal elements, and critical vocabulary of the sculpture medium. Lectures and group critiques augment studio projects in paper, wood, and other media.

2101 \{250\} c. Drawing II. Fall 2013. Mark Wethli.
A continuation of the principles introduced in Visual Arts $1101\{150\}$, with particular emphasis on figurative drawing. Studio projects develop perceptual, creative, and critical abilities through problems involving objective observation, gestural expression and structural principles of the human form, studies from historical and contemporary examples, and exploration of the abstract formal elements of drawing. Lectures and group critiques augment studio projects in various drawing media.

Prerequisite: Visual Arts $1101\{150\}$.
2201 \{270\} c. Printmaking II. Fall 2013. Carrie Scanga.
A continuation of the principles introduced in Visual Arts $1201\{170\}$, with particular emphasis on independent projects.
Prerequisite: Visual Arts $1201\{170\}$ or permission of the instructor.
[2202 \{271\} c. Drawing on Science. (Same as Environmental Studies 2473 \{273\}.)]
2301 \{260\} c. Painting II. Spring 2014. Mark Wethli.
A continuation of the principles introduced in Visual Arts 1301 \{160\}, with studio problems based on direct experience.

Prerequisite: Visual Arts 1301 \{160\} or permission of the instructor.

A continuation of principles encountered in Visual Arts $1401\{180\}$, with an added emphasis on the expressive potential of color. Cameras of various formats, from the 35 mm to the $4 \times 5$, are used to complete assignments. Approaches to color film exposure and digital capture, manipulation, and printing are practiced and the affect of color is examined. Through reading assignments, slide presentations, and discussions, students explore historical and cultural implications of color photography. Weekly assignments and group critiques structure class discussion.

Prerequisite: Visual Arts 1401 \{180\}.
2970-2973 \{295-298\} c. Intermediate Independent Study in Visual Arts. Visual Arts Faculty.

2999 \{299\} c. Intermediate Collaborative Study in Visual Arts. Visual Arts Faculty.
$3401\{380\}$ c. Photo Seminar. Fall 2013. Michael Kolster.
An extension of principles and techniques developed in Visual Arts 1401 \{180\}, 2401 \{280\}, and $2402\{282\}$ with increased emphasis on independent projects. Seminar discussion and critiques, and field and laboratory work. Participants must provide their own non-automatic 35 mm camera.

Prerequisite: Visual Arts $2401\{280\}, 2402\{281\}$, or $2404\{282\}$; or permission of the instructor.

3602 c. Make. Believe. Sculpture. Spring 2014. Alicia Eggert.
Studio projects, readings, discussions, and field trips examine belief as a personal, political, and spiritual phenomenon. Materials and methods range from the traditional to the contemporary.

Prerequisite: Two courses numbered 1100-1999 \{100-199\} or 2000-2969 \{200-299\} in visual arts.
$3800\{383\}$ c. Art and Time. Fall 2013. Julie A. Poitras Santos.
An exploration of the role of time in the visual arts. Through class assignments and independent projects, examines how artists can invoke and transform time. Attention given to historical and contemporary precedents. Seminar discussions, field trips, and class critiques. Not open to students who have credit for Visual Arts 2801 \{283\}.

Prerequisite: Two courses numbered 1100-1999 \{100-199\} or 2000-2969 \{200-299\} in visual arts.

3801 \{310\} c. Narrative Structures. Spring 2014. Carrie Scanga.
Explores narrative content, forms, processes, meanings, and approaches in the visual arts, especially in the context of contemporary practice, through interdisciplinary media, as determined jointly by faculty and students in the course.

Prerequisite: Two courses numbered 1100-1999 \{100-199\} or 2000-2969 \{200-299\} in visual arts.
$3804\{365\}$ c. Public Art. Fall 2013. Mark Wethli.
An examination of public art through direct participation in its various forms, from independent initiatives outside conventional exhibition spaces to art commissioned and produced to serve public needs (through service learning). Topics include working with public and private agencies, as well as exploring the means and materials to create larger-scale artworks. Not open to students who have credit for Visual Arts $2804\{265\}$.

Prerequisite: Two courses numbered 1100-1999 \{100-199\} or 2000-2969 \{200-299\} in visual arts.
3902 \{395\} c. Senior Studio. Every spring. Spring 2014. James Mullen.
Concentrates on strengthening critical and formal skills as students start developing an individual body of work. Includes periodic reviews by members of the department and culminates with a group exhibition at the conclusion of the semester.

Prerequisite: One coure numbered 3000-3999 in visual arts.
$4000\{401\}$ c. Advanced Independent Study in Visual Arts. Visual Arts Faculty.
Open only to exceptionally qualified senior majors and required for honors credit. Advanced projects undertaken on an independent basis, with assigned readings, critical discussions, and a final position paper.
4029 \{405\} c. Advanced Collaborative Study in Visual Arts. Visual Arts Faculty.
4050 c. Honors Project in Visual Arts. Visual Arts Faculty.

## Asian Studies

Belinda Kong, Program Director
Suzanne M. Astolfi, Program Coordinator
Professors: John C. Holt (Religion)
Associate Professors: Songren Cui, Belinda Kong (English), Henry C. W. Laurence (Government), Rachel Sturman $\dagger$ (History), Shu-chin Tsui (Film Studies)
Assistant Professors: Christopher Heurlin (Government), Vyjayanthi Ratnam Selinger, Peggy
Wang (Art History), Ya (Leah) Zuo (History)
Senior Lecturer: Hiroo Aridome
Lecturer: Xiaoke Jia
Fellow: Nishtha G. Singh (History)
Contributing Faculty: David Collings, Sara A. Dickey, Nancy E. Riley, Vineet Shende, Yao Tang

Students in Asian studies focus on the cultural traditions of China, Japan, or South Asia (India, Sri Lanka, Pakistan, Bangladesh, and Nepal). In completing the major, each student is required to gain a general understanding of one of these cultural areas, to acquire a working proficiency in one of the languages of South or East Asia, to develop a theoretical or methodological sophistication, and to demonstrate a degree of applied specialization. These principles are reflected in the requirements for an Asian studies major.

## Requirements for the Major in Asian Studies

One majors in Asian studies by focusing on a particular geographic and cultural area (e.g., South Asia) or by specializing in the subfield of Disciplinary Asian Studies. Eight courses are required in addition to the study of an Asian language. These eight include a senior seminar (numbered 3000-3969 \{300-399\}) and other courses as described below. A student who wishes to graduate with honors in the program must also write an honors thesis, which is normally a one-year project. Students must earn a grade of C- or better in order to have a course count for the major. One course taken with the Credit/D/Fail grading option may count for the major as long as a CR (Credit) grade is earned and the course is not at the advanced level (numbered 3000-3999 \{300-399\}). No "double counting" of courses is allowed for the major. First-year seminars do count for the major.

The major requires courses from two categories:

1. Language. Two years of an East Asian language or one year of a South Asian language, or the equivalent through intensive language study. The College does not directly offer courses in any South Asian language. Arrangements may be made with the director of the program and the Office of the Registrar to transfer credits from another institution, or students may meet this requirement by studying Sinhala on the ISLE Program or Tamil on the SITA Program. Advanced language study is important for and integral to the major. In addition to the required two years of language study, students may apply up to three advanced intermediate (third-year) or advanced (fourth-year) East Asian language courses toward the total of eight required for the area-specific or disciplinary major.

2a. Area-specific option. Eight courses, seven of which focus on the student's area of specialization and one of which is in an Asian cultural area outside that specialization. One of these eight courses is normally a senior seminar. The possible areas of specialization are China, Japan, East Asia, and South Asia. Students must take at least one pre-modern and one modern course in their area of specialization. Students specializing in China must take one pre-modern and one modern course; those specializing in Japan must take one pre-modern and one modern course; and those focusing on South Asia must take one intermediate course (numbered 2500-2749) from each of the following three areas: anthropology, history, and religion, all of which must have South Asia as their primary focus.

2b. Disciplinary-based option. Eight courses, at least five of which must be in the chosen discipline (e.g., government, history, literature, religion, and other approved areas). Those choosing this option should consult with their advisor concerning course selection and availability. One of the eight courses must be an advanced course (numbered 3000-3969 $\{300-399\})$ in the discipline of focus, wherever possible. The three remaining courses, chosen in consultation with an advisor, must explore related themes or relate to the student's language study. The language studied must be in the student's primary cultural or national area of focus, or in cases where a discipline allows for comparison across areas, in one of the primary areas of focus.

## Requirements for the Minor in Asian Studies

Students focus on the cultural traditions of either East Asia or South Asia by completing a concentration of at least five courses in one geographic area or four courses in one geographic area and one course outside that specialization. Of these five courses, two may be language courses, provided that these language courses are at the level of third-year instruction or above. Two courses completed in off-campus programs may be counted toward the minor. Students focusing on South Asia must take one intermediate course (numbered 2500-2749)
from each of the following three areas: anthropology, history, and religion, all of which must have South Asia as their primary focus. Students must earn a grade of C- or better in order to have a course count for the minor. One course taken with the Credit/D/Fail grading option may count for the minor as long as a CR (Credit) grade is earned and the course is not at the advanced level (numbered 3000-3999 \{300-399\}). No "double counting" of courses is allowed for the minor. First-year seminars do count for the minor.

## Requirements for the Minor in Chinese or Japanese

The minor consists of five courses. Of these five courses, four must be in the chosen language. Students who have background in the language must take four courses in the language beginning with the course in which they are initially placed. The fifth course may either be an advanced language class or a class about the literature or film of a chosen study area, including a first-year seminar. Courses that count for the minor may not be counted for another major or minor. Up to two credits from off-campus study may count toward the minor.

## Off-Campus Study

Foreign study for students interested in Asian studies is highly recommended. Established programs in the People's Republic of China, Hong Kong, and Taiwan are available for students interested in China. Students are particularly encouraged to attend the ACC, CET, and IUP programs. The AKP and JCMU programs are recommended for students interested in Japan, but students may select another program based upon their academic interests. The ISLE and SITA programs are recommended for students interested in South Asia. Consult the Asian studies office or website for information about these and other programs. Up to three credits from off-campus study (excluding beginning and intermediate-first- and second-year-language courses) may count toward the major. Up to two credits from off-campus study (excluding language courses) may count for the minor.

## Program Honors

Students contemplating honors candidacy in the program must have established records of A or B+ average in program course offerings and present clearly articulated, well-focused proposals for scholarly research. Students must prepare an honors thesis and successfully defend their thesis in an oral examination.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1006 c. China Encounters the West. Fall 2014. Leah Zuo. (Same as History 1036.)
1043 \{23\} c. East Asian Genre Cinema: Action, Anime, and Martial Arts. Fall 2013. Shuchin Tsui. (Same as Film Studies 1043 \{23\}.)

## Introductory, Intermediate, and Advanced Courses

[ 1625 \{ 138$\}$ b - ESD, IP. Everyday Life in India and Pakistan. (Same as Anthropology 1138 \{138\}.)]

2002 \{276\} c - ESD, IP. The Foundations of Chinese Thought. Fall 2013. Leah Zuo.
Seminar. Addresses Chinese thought from the time of Confucius, ca. sixth century BCE, up to the beginning of the Common Era. The first half of the time period nurtured many renowned thinkers, who devoted themselves to the task of defining and disseminating ideas.

The latter half witnessed the canonization of a number of significant traditions, including Confucianism, Daoism, and Legalism. Major problems that preoccupied the thinkers include order and chaos, human nature, the relationship between man and nature, among others. Students instructed to interrogate philosophical ideas in historical contexts. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 2780 \{276\}.)

2005 \{273\} c - IP. Science, Technology, and Society in China. Spring 2014. Leah Zuo.
Seminar. Examines Chinese science, technology, and medicine in the cultural, intellectual, and social circumstances. The first part surveys a selection of main fields of study in traditional Chinese science and technology, nodal points of invention and discovery, and important conceptual themes. The second part tackles the clash between traditional Chinese natural studies and modern science from the seventeenth through the twentieth centuries. Prominent themes include astronomy and court politics, printing technology and books, and the dissemination of Western natural science, among others. Reading materials reflect the interdisciplinary approach of this course and include secondary literature on cultural, intellectual history, ethnography, and the sociology of scientific knowledge. (Same as History 2781 \{260\}.)

2010 \{275\} c. The Emergence of Chinese Civilization. Spring 2014. Leah Zuo.
Introduction to ancient Chinese history ( 2000 BCE to 800 CE). Explores the origins and foundations of Chinese civilization. Prominent themes include the inception of the imperial system, the intellectual fluorescence in classical China, the introduction and assimilation of Buddhism, the development of Chinese cosmology, and the interactions between early China and neighboring regions. Class discussion of historical writings complemented with literary works and selected pieces of the visual arts. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 2320 \{275\}.)
2011 \{271\} c - ESD, IP. Late Imperial China. Fall 2014. Leah Zuo.
Introduction to late imperial China (800 to 1800) as the historical background to the modern age. Begins with the conditions shortly before the Golden Age (Tang Dynasty) collapses, and ends with the heyday of the last imperial dynasty (Qing Dynasty). Major topics include the burgeoning of "modernity" in economic and political patterns, the relation between state and society, the voice and presence of new social elites, ethnic identities, and the cultural, economic, and political encounters between China and the West. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 2321 \{273\}.)

2012 \{277\} c - IP. China’s Path to Modernity: 1800 to Present. Fall 2013. Leah Zuo.
Introduction to modern and contemporary Chinese history. Covers the period from the nineteenth century, when imperial China encountered the greatest national crisis in its contact with the industrial West, to the present People's Republic of China. Provides historical depth to an understanding of the multiple meanings of Chinese modernity. Major topics include: democratic and socialist revolutions; assimilation of Western knowledge and thought; war; imperialism; and the origin, development, and unraveling of Communist rule. (Same as History 2322 \{214\}.)

## 2020 c. Power and Politics in Pre-Modern Chinese Art. Spring 2014. Peggy Wang.

Introduces students to Chinese art from the First Emperor's terracotta warriors in the third century BCE to the waning of the country's dynastic history in the nineteenth century CE. Following a chronological sequence, explores key mortuary spaces, religious objects, court art, and landscape painting with emphasis on themes of power and politics. Emphasis is placed
on understanding changing art formats and functions in relation to socio-cultural contexts, such as shifts in belief systems, foreign imperial patronage, and the rise of literati expression. Readings include primary sources such as ancestral rites, Buddhist doctrines, imperial proclamations, and Chinese painting treatises. (Same as Art History 2710.)

2060 \{227\} b - IP. Contemporary Chinese Politics. Spring 2014. Christopher Heurlin.
Examines Chinese politics in the context of a prolonged revolution. After a survey of the political system as established in the 1950s and patterns of politics emerging from it, the analytic focus turns to political change in the reform era (since 1979) and the forces driving it. Topics include the political impact of decentralization and marketization, the reintegration into the capitalist world economy, and the development of the legal system. The adaptation by the Communist Party to these changes and the prospects of democratization are also examined. (Same as Government $2440\{227\}$.)
2071 \{252\} c - IP. Cultural Topics in Contemporary China. Spring 2014. Shu-chin Tsui. Explores cultural trends in contemporary China with post-socialist condition as the contextual setting and cultural studies as the theoretical framework. Discussion topics include rural-urban transformations, experimental art, alternative literature, documentary cinema, fashion codes, and gender issues. Examines how cultural trends reflect and react to China's social-economic transitions, and how the state apparatus and the people participate in cultural production and consumption.

2072 \{254\} c - IP, VPA. Transnational Chinese Cinema. Fall 2014. Shu-chin Tsui.
Introduces students to films produced in the People's Republic of China, Taiwan, and Hong Kong. Places national cinema in a transnational framework and explores how cinema as a sign system constructs sociocultural and aesthetic meanings. Students will benefit most by bringing both an open mind toward non-Western cultural texts, and a critical eye for visual art. (Same as Film Studies 2254 \{254\}.)
2073 \{266\} c - IP. Chinese Women in Fiction and Film. Spring 2015. Shu-chin Tsui.
Approaches the subject of women and writing in twentieth- and early twenty-first-century China from perspectives of gender studies, literary analysis, and visual representations. Considers women writers, filmmakers, and their works in the context of China's socialpolitical history as well as its literary and visual traditions. Focuses on how women writers and directors negotiate gender identity against social-cultural norms. Also constructs a dialogue between Chinese women's works and Western feminist assumptions. (Same as Film Studies $2266\{266\}$ and Gender and Women’s Studies 2266 \{266\}.)
2090 \{269\} - MCSR. Applied Research Practicum: Chinese Rural to Urban Migration. Spring 2014. Rachel Connelly.

Highlights applied research methods in microeconomics. Students work throughout the semester in research teams to analyze data from Chinese rural women on their migration and/ or the migration of their husbands. While topics of Chinese economic life and economic models of migration are studied, primarily focuses on methods: how applied researchers work with data to analyze a set of questions. Elementary statistics is a prerequisite. Statistical techniques beyond the elementary level are taught. (Same as Economics $2277\{277\}$ and Gender and Women's Studies 2277 \{277\}.)
Prerequisite: Economics $1101\{101\}$ and one of the following statistics courses: Economics $2557\{257\}$, Mathematics $1200\{155\}$ or $2606\{265\}$, Psychology $2520\{252\}$, or Sociology $2010\{201\}$; or permission of the instructor.
[2101 \{264\} b. Gender and Family in East Asia. (Same as Gender and Women's Studies 2265 $\{265\}$ and Sociology $2265\{265\}$. )]
$2230\{230\}$ c - ESD, IP. Imperialism, Nationalism, Human Rights. Spring 2015. Rachel Sturman.

Examines the history of modern global imperialism and colonialism from the sixteenth through the twentieth centuries. Focuses on the parallel emergence of European nationalism, imperialism, and ideas of universal humanity, on the historical development of anti-colonial nationalisms in the regions ruled by European empires, and on the often-contentious nature of demands for human rights. Regions examined include South Asia, Africa, and Latin America. (Same as History 2344 \{280\}.)

2270 \{246\} c - IP. The Fantastic and Demonic in Japanese Literature. Spring 2014. Vyjayanthi Selinger.

From possessing spirits and serpentine creatures to hungry ghosts and spectral visions, Japanese literary history is alive with supernatural beings. The focus of study ranges from the earliest times to modernity, examining these motifs in both historical and theoretical contexts. Readings pose the following broad questions: How do representations of the supernatural function in both creation myths of the ancient past and the rational narratives of the modern nation? What is the relationship between liminal beings and a society's notion of purity? How may we understand the uncanny return of dead spirits in medieval Japanese drama? How does the construction of demonic female sexuality vary between medieval and modern Japan? Draws on various genres of representation, from legends and novels to drama, paintings, and cinema. Students develop an appreciation of the hold that creatures from the "other" side maintain over our cultural and social imagination.
[2281 \{209\} c - IP, VPA. The Arts of Japan. (Same as Art History $2720\{272\}$.)]

## 2300 \{201\} c - ESD, IP. Literature of World War II and the Atomic Bomb in Japan: History, Memory, and Empire. Fall 2014. Vyjayanthi Selinger.

A study of Japan's coming to terms with its imperialist past. Literary representations of Japan's war in East Asia are particularly interesting because of the curious mixture of remembering and forgetting that mark its pages. Postwar fiction delves deep into what it meant for the Japanese people to fight a losing war, to be bombed by a nuclear weapon, to face surrender, and to experience Occupation. Sheds light on the pacifist discourse that emerges in atomic bomb literature and the simultaneous critique directed toward the emperor system and wartime military leadership. Also examines what is missing in these narratives-Japan's history of colonialism and sexual slavery-by analyzing writings from the colonies (China, Korea, and Taiwan). Tackles the highly political nature of remembering in Japan. Writers include the Nobel prize-winning author Ôe Kenzaburô, Ôoka Shôhei, Kojima Nobuo, Shimao Toshio, Hayashi Kyoko, and East Asian literati like Yu Dafu, Lu Heruo, Ding Ling, and Wu Zhou Liu.
2301 \{244\} c - IP. Modern Japanese Literature. Fall 2013. Vyjayanthi Selinger.
As a latecomer to industrial modernity, Japan underwent rapid changes in the early part of the twentieth century. Examines how the creative minds of this period responded to the debates surrounding these sweeping technological and social changes, pondering, among other things, the place of the West in modern Japan, the changing status of women, and the place of minorities. Many of the writers from this period chose to write "I-novels" or first-person fiction. How is the inward turn in narrative tied to modern ideas of the self and its relationship to society? What sorts of quests does this self embark on and how is the end
of the journey conceptualized? How do the romantic objects of this (male) self help express notions of stability/instability in a changing world? No prior knowledge of Japanese language, history, or culture is required. All readings in English.
$2320\{282\}$ b - ESD, IP. Japanese Politics and Society. Fall 2013. Henry C. W. Laurence.
Comprehensive overview of modern Japanese politics in historical, social, and cultural context. Analyzes the electoral dominance of the Liberal Democratic Party, the nature of democratic politics, and the rise and fall of the economy. Other topics include the status of women and ethnic minorities, education, war guilt, nationalism, and the role of the media. (Same as Government $2450\{232\}$.)

2550 \{219\} c. Religion and Fiction in Modern South Asia. Spring 2015. John Holt.
A study of the Hindu and Buddhist religious cultures of modern South Asia as they have been imagined, represented, interpreted, and critiqued in the literary works of contemporary and modern South Asian writers of fiction and historical novels. (Same as Religion 2219 \{219\}.)

2551 \{223\} c - IP. Mahayana Buddhism. Fall 2014. John Holt.
Studies the emergence of Mahayana Buddhist worldviews as reflected in primary sources of Indian, Chinese, and Japanese origins. Buddhist texts include the Buddhacarita ("Life of Buddha"), the Sukhavati Vyuba ("Discourse on the 'Pure Land""), the Vajraccedika Sutra (the "Diamond-Cutter"), the Prajnaparamitra-brdaya Sutra ("Heart Sutra of the Perfection of Wisdom"), the Saddharmapundarika Sutra (the "Lotus Sutra"), and the Platform Sutra of the Sixth Patriarch, among others. (Same as Religion 2223 \{223\}.)

2552 \{240\} c - IP. Hindu Literatures. Spring 2014. John Holt and Sree Padma Holt.
A reading and discussion of translated classical Hindu literature, including the Rg Veda, Upanishads, Yoga Sutra, the epics Ramayana, Mababharata (including the Bhagavad Gita), Devi Mahatmya and the Cilapatikaram, etc. Focuses on development of various types of religious worldviews and religious experiences as reflected in classical Sanskrit and vernacular literature of India. (Same as Religion 2220 \{220\}.)

2553 \{241\} c - IP. Hindu Cultures. Spring 2015. John Holt.
A consideration of various types of individual and communal religious practice and religious expression in Hindu tradition, including ancient ritual sacrifice, mysticism and yoga (meditation), dharma and karma (ethical and political significance), pilgrimage (as inward spiritual journey and outward ritual behavior), puja (worship of deities through seeing, hearing, chanting), rites of passage (birth, adolescence, marriage, and death), etc. Focuses on the nature of symbolic expression and behavior as these can be understood from indigenous theories of religious practice. Religion $2220\{220\}$ is recommended as a previous course. (Same as Religion 2221 \{221\}.)
2554 \{242\} c - ESD, IP. Theravada Buddhism. Fall 2013. John Holt.
An examination of the major trajectories of Buddhist religious thought and practice as understood from a reading of primary and secondary texts drawn from the Theravada traditions of India, Sri Lanka, Thailand, and Burma. (Same as Religion 2222 \{222\}.)
2555 c - IP. Religious Culture and Political Change in Southeast Asia. Spring 2014. John Holt.

An examination of the ways in which changes in political economies and societies of Sri Lanka, Burma, Thailand, Laos, and Cambodia have fostered changes in the predominantly

Theravada Buddhist religious cultures of modern Southeast Asia. Focuses include how civil wars in Sri Lanka and Burma, revolutions in Laos and Cambodia, and the ideology of kingship in Thailand have elicited changes in the public practice and understanding of religion. Previous credit in Religion 2222 \{222\} (same as Asian Studies $2554\{242\}$ ) is highly recommended. (Same as Religion 2288.)
[2561 \{247\} b - ESD, IP. Bollywood, Kollywood, and Beyond: Indian Cinema and Society. (Same as Anthropology 2601 \{232\} and Film Studies 2232 \{232\}.)]

2562 \{248\} b. Activist Voices in India. Fall 2013. Sara Dickey.
Examines contemporary social and political activism in India. Focuses on film, essays, and fiction to investigate the ways that political messages are constructed through different media and for specific audiences. Case studies include activism concerning religious conflict, gender inequalities, gay and lesbian identities, and environmental issues. (Same as Anthropology 2647 \{248\}, Film Studies 2248 \{248\}, and Gender and Women’s Studies 2250 \{246\}.)

Prerequisite: Anthropology 1101 \{101\} or Sociology $1101\{101\}$, and one previous course on contemporary South Asian societies from the following: Anthropology 1138 \{138\} (same as Asian Studies $1625\{138\}$ ); Anthropology 2601 \{232\} (same as Asian Studies 2561 \{247\}); Anthropology 2643 \{243\} (same as Asian Studies 2560 \{232\}); Asian Studies 2501 \{289\} (same as Gender and Women's Studies 2289 \{289\} and Religion 2289 \{289\}); History 1038 $\{26\}$ (same as Asian Studies $1035\{26\}$ ); History 2341 \{282\} (same as Asian Studies 2580 $\{236\}$ ); History $2342\{261\}$ (same as Asian Studies 2581 \{256\}); History 2343 \{263\} (same as Asian Studies $2582\{258\}$ ); History 2344 \{280\} (same as Asian Studies $2230\{230\}$ ); History 2801 \{259\} (same as Asian Studies 2583 \{237\} and Gender and Women's Studies $2259\{259\}$ ); History $2809\{241\}$ (same as Asian Studies 2239 \{239\}); Religion 2219 \{219\} (same as Asian Studies $2550\{219\}$ ); Religion 2221 \{221\} (same as Asian Studies 2553 \{241\}); Religion $2222\{222\}$ (same as Asian Studies 2554 \{242\}); Sociology 2227 \{227\} (same as Africana Studies 2227 \{227\} and Asian Studies $2840\{263\}$ ); Sociology $2236\{236\}$ (same as Asian Studies $2570\{233\}$ ); or permission of the instructor.
2581 \{256\} c - ESD, IP. The Making of Modern India. Fall 2013. Nishtha Singh.
Traces the history of India from the rise of British imperial power in the mid-eighteenth century to the present. Topics include the formation of a colonial economy and society; religious and social reform; the emergence of anti-colonial nationalism; the road to independence and partition; and issues of secularism, democracy, and inequality that have shaped post-colonial Indian society. (Same as History 2342 \{261\}.)
[2582 \{258\} c - ESD, IP. Politics and Popular Culture in Twentieth-Century India. (Same as History 2343 \{263\}.)]
[2583 \{237\} c - ESD, IP. Sex and the Politics of the Body in Modern India. (Same as Gender and Women's Studies 2259 \{259\} and History 2801 \{259\}.)]
$2584\{239\}$ c - ESD, IP. From Gandhi to the Taliban: Secularism and Its Critics in Modern South Asia. Spring 2015. Rachel Sturman.

Seminar. Explores modern sociopolitical movements in India and Pakistan that have sought to redefine the relationship between religion and the state. Issues considered include the meanings of secularism, the ethical claims of modern states, the development of violence and non-violence as political programs, and the historical impacts of these diverse movements. (Same as History $2800\{241\}$.)]

2590 c. Islam in South Asia c. 700 to the Present. Spring 2014. Nishtha Singh.
Seminar: Focuses on Islam in South Asia-which is home to the largest number of Muslims anywhere in the world, and whose large Muslim population has always co-habited with a much larger non-Muslim population. Questions and themes include: the manner and extent of the expansion of Islam over the subcontinent (religion of conquest? mass conversions?); how "Islamic" was Muslim rule on the sub-continent; Islamic aesthetics and contributions to material culture; the multiple engagements and reactions of Muslims to British colonial rule; the politicization of religious identity under colonialism; the partition of British India into the nation states of India and Pakistan on grounds of religion; and the contemporary concerns and challenges of South Asia's Muslims. (Same as History 2743.)

2591 c. Gandhi and Non-Violent Politics. Spring 2014. Nishtha Singh.
Politics, almost by definition, is oppositional. It promotes an "us vs. them" mindset. However, Gandhi introduced a form of politics that was non-adversarial and based in dialogue. His nonviolent form of politics was able to bring the masses into the political arena for the first time in South Asia, and to create one of the largest anti-colonial movements in the world. Analyzes Gandhian politics through questions such as: How did Gandhi's deeply held personal views on non-violence impact his politics? What were the Gandhian techniques of mass mobilization? Can Gandhi's own initiatives-what he himself said and did—adequately explain his vast popularity amongst the masses? What were the pitfalls of Gandhian politics? What groups felt alienated from them? How did people such as Martin Luther King Jr. adapt Gandhian ideas outside South Asia? Do Gandhian ideas have a place in our contemporary world? (Same as History 2289.)

2805 \{251\} - ESD. Asian America: History, Society, Literature. Fall 2013. Connie Chiang, Belinda Kong, and Nancy Riley.

Focuses on Asian American experiences from an interdisciplinary perspective, including history, English, Asian studies, and sociology. Examines major issues in the experience of Asian Americans including immigration, the politics of racial/ethnic formation and identity, the political and economic forces that have shaped the lives of Asians in the U.S., historical experiences and influences on today's situation, and ways that Asian Americans have resisted and accommodated these influences. Uses a variety of lenses to gain critical perspective, including history, social relations and practices, and cultural production. (Same as English 2757 $\{275\}$, History $2162\{268\}$, and Sociology 2266 \{266\}.)
2806 c - ESD. New Fictions of Asian America. Spring 2014. Belinda Kong.
Surveys developments in Asian American literature since 2000, and asks how post-millennial fictions revise and extend the core concerns of earlier writing. If Asian American writers have long been preoccupied with questions of ethnic identity and national belonging, recent works tackle these themes within new contexts of transnationalism, the post- $9 / 11$ security state, and the global financial crisis. Considers the diverse functions of the contemporary Asian American novel-as autobiography and narrative of racial passing, as social satire and tragicomedy, and as cultural memory and multiracial national history. (Same as English 2758.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or one course in Asian studies.
[2821 \{234\} b - IP. Politics in East Asia. (Same as Government 2545 \{234\}.)]
$2830\{231\}$ b - IP. Topics on Asian Economies. Fall 2014 or Spring 2015. Yao Tang.
A study of the similarities and differences in growth experience and the level of economic output per person in Asian countries. Explores possible causes of differences in economic paths, with a focus on several important economies, including China and Japan. Also discusses the relationship between the Asian economies and the United States economy. (Same as Economics 2239 \{239\}.)

Prerequisite: Economics 1101 \{101\} and 1102 \{102\}, or placement above Economics 1102 \{102\}.
$2860\{280\}$ b - IP. Asian Communism: The Politics of China, Vietnam, North Korea, and Mongolia. Fall 2013. Christopher Heurlin.

Examines the Asian communism in China, Vietnam, North Korea, and Mongolia. Asian communism presents a series of fascinating questions. Why did communist revolutions occur in some Asian states but not others? Why were relations between some Asian communist states peaceful while others were hostile? Why did some adopt significant economic reforms while others maintained command economies? Why did communist regimes persist in most Asian states, while Communism fell in Mongolia and all of Europe? The approach of the course is explicitly comparative and structured around thematic comparisons between the four states. (Same as Government 2445 \{286\}.)

2970-2973 \{291-294\} c. Intermediate Independent Study in Asian Studies. The Program.
2999 \{299\} c. Intermediate Collaborative Study in Asian Studies. The Program.
3051 c. Totalitarianism and Dissidence in Contemporary Chinese Literature. Spring 2014. Belinda Kong.

Seminar. Can "literature" be produced within a totalitarian regime where public expression is tightly controlled by the state? Or does political repression ironically foster creative means of literary circumvention? These are some central questions raised by the controversial awarding of the 2012 Nobel Prize in Literature to Mo Yan. Focusing on contemporary China as a case study, explores the relation between aesthetics and politics via a range of writers, from establishment novelists to dissidents in exile to Internet activists. Authors may include Mo Yan, Su Tong, Yu Hua, Liu Xiaobo, Liao Yiwu, Yan Lianke, Ai Weiwei, and Han Han. Theoretical reference points may include Lukacs, Arendt, Mao, Boym, Barme, and Evasdottir. (Same as English 3021.)
Prerequisite: One course numbered 2000-2969 \{200-289\} in English or Asian studies, or permission of the instructor.
[3070 \{311\} c. Historicizing Contemporary Chinese Art. (Same as Art History 3200 \{320\}.)]
$3300\{332\}$ b. Advanced Seminar in Japanese Politics. Spring 2014. Henry C. W. Laurence.
Analyzes the political, social, and cultural underpinnings of modern politics, and asks how democracy works in Japan compared with other countries. Explores how Japan has achieved stunning material prosperity while maintaining among the best health care and education systems in the world, high levels of income equality, and low levels of crime. Students are also instructed in conducting independent research on topics of their own choosing. (Same as Government $3400\{332\}$.)

Prerequisite: Asian Studies $2320\{282\}$ (same as Government $2450\{232\}$ ).
[3550 \{344\} c. Religious Culture and Politics in Southeast Asia. (Same as Government $3900\{393\}$ and Religion 3344 \{344\}.)]

4000-4003 \{401-404\} c. Advanced Independent Study in Asian Studies. The Program.
4029 \{405\} c. Advanced Collaborative Study in Asian Studies. The Program.
4050-4051 c. Honors Project in Asian Studies. The Program.

## Chinese

1101 \{101\} c. Elementary Chinese I. Fall 2013. Songren Cui.
A foundation course for communicative skills in modern Chinese (Mandarin). Five hours of class per week. Introduction to the sound system, essential grammar, basic vocabulary, and approximately 350 characters (simplified version). Develops rudimentary communicative skills. No prerequisite. Followed by Chinese $1102\{102\}$.

## $1102\{102\}$ c. Elementary Chinese II. Spring 2014. Songren Cui.

A continuation of Chinese 1101 \{101\}. Five hours of class per week. Covers most of the essential grammatical structures and vocabulary for basic survival needs and simple daily routine conversations. Introduction to the next 350 characters (simplified version), use of Chinese-English dictionary. Followed by Chinese 2203 \{203\}.

Prerequisite: Chinese 1101 \{101\}, placement in Chinese $1102\{102\}$, or permission of the instructor.
$1103\{103\}$ c. Advanced Elementary Chinese I. Fall 2013. Xiaoke Jia.
An accelerated course for elementary Chinese designed for heritage speakers and for students who have had some background in Chinese language. Emphasis on improvement of pronunciation, consolidation of basic Chinese grammar, enrichment of vocabulary, and development of reading and writing skills. Five hours of class per week and individual tutorials. Followed by Chinese 1104 \{104\}. Students should consult with the program about appropriate placement.
$1104\{104\}$ c. Advanced Elementary Chinese II. Spring 2014. Xiaoke Jia.
A continuation of Chinese 1103 \{103\}. Five hours of class per week. An all-around upgrade of communicative skills with an emphasis on accuracy and fluency. Covers more than 1,000 Chinese characters together with Chinese 1103 \{103\}. Propels those with sufficient competence directly to Advanced-Intermediate Chinese (2205 \{205\} and $2206\{206\}$ ) after a year of intensive training while prepares others to move up to Intermediate (second-year) Chinese language course. Followed by Chinese $2203\{203\}$ or $2205\{205\}$ with instructor's approval.
2203 \{203\} c. Intermediate Chinese I. Fall 2013. Xiaoke Jia.
An intermediate course in modern Chinese. Five hours of class per week. Consolidates and expands the knowledge of grammar and vocabulary, with 400 additional characters. Further improves students' Chinese proficiency with a focus on accuracy, fluency, and complexity. Followed by Chinese 2204 \{204\}.
Prerequisite: Chinese $1102\{102\}$, placement in Chinese $2203\{203\}$, or permission of the instructor.

2204 \{204\} c. Intermediate Chinese II. Spring 2014. Xiaoke Jia.
A continuation of Chinese $2203\{203\}$. Five hours of class per week. Further develops students' communicative competence and strives to achieve a balance between the receptive
and productive skills. Students learn another 400 characters; read longer, more complex texts; and write short compositions with increasing discourse cohesion. Followed by Chinese 2205 \{205\}.

Prerequisite: Chinese $2203\{203\}$ or permission of the instructor.
2205 \{205\} c. Advanced-Intermediate Chinese I. Fall 2013. Songren Cui.
A pre-advanced course in modern Chinese. Three hours of class per week. Upgrades students' linguistic skills and cultural knowledge to explore edited or semi-authentic materials particularly enhancing students' Chinese language control. In addition to accuracy, fluency, and complexity, emphasizes the development of self-managed study skills. Followed by Chinese $2206\{206\}$.

Prerequisite: Chinese $2204\{204\}$, placement in Chinese $2205\{205\}$, or permission of the instructor.

2206 \{206\} c. Advanced-Intermediate Chinese II. Spring 2014. Songren Cui.
A continuation of Chinese $2205\{205\}$. Three hours of class per week. Further enhances students' ability in the three modes of communication: interpretive, interpersonal, and presentative. Focuses on the improvement of reading comprehension and speed, and essay writing skills of expositive and argumentative essays. Deals particularly with edited and/or authentic materials from Chinese mass media such as newspapers and the Internet. Followed by Chinese 3307 \{307\}.

Prerequisite: Chinese 2205 \{205\} or permission of the instructor.
3307 \{307\} c. Advanced Chinese I. Fall 2013. Shu-chin Tsui.
Designed to develop mastery of the spoken and written language. Emphasis given to reading and writing, with focus on accuracy, complexity, and fluency in oral as well as written expression. Assigned work includes written composition and oral presentations.
Prerequisite: Chinese $2206\{206\}$, placement in Chinese 3307 \{307\}, or permission of the instructor.

3308 \{308\} c. Advanced Chinese II. Spring 2014. Shu-chin Tsui.
Continuation of Chinese 3307 \{307\}.
Prerequisite: Chinese $3307\{307\}$ or permission of the instructor.
4000-4003 \{401-404\} c. Independent Study in Chinese. The Program.
4029 \{405\} c. Collaborative Study in Chinese. The Program.

## JAPANESE

1101 \{101\} c. Elementary Japanese I. Fall 2013. Hiroo Aridome.
An introductory course in modern Japanese language. In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading, and listening comprehension. Context-oriented conversation drills are complemented by audio materials. The two kana syllabaries and 60 commonly used kanji are introduced. No prerequisite. Followed by Japanese $1102\{102\}$.

1102 \{102\} c. Elementary Japanese II. Spring 2014. Hiroo Aridome.
A continuation of the fundamentals of Japanese grammar structures and further acquisition of spoken communication skills, listening comprehension, and proficiency in reading and writing. Introduces an additional 90 kanji.

Prerequisite: Japanese $1101\{101\}$, placement in Japanese $1102\{102\}$, or permission of the instructor.

2203 \{203\} c. Intermediate Japanese I. Fall 2013. Vyjayanthi Selinger.
An intermediate course in modern Japanese language, with introduction of advanced grammatical structures, vocabulary, and characters. Continuing emphasis on acquisition of well-balanced language skills based on an understanding of the actual use of the language in the Japanese sociocultural context. Introduces an additional 100 kanji.

Prerequisite: Japanese $1102\{102\}$, placement in Japanese $2203\{203\}$, or permission of the instructor.

2204 \{204\} c. Intermediate Japanese II. Spring 2014. Vyjayanthi Selinger.
A continuation of Japanese $2203\{203\}$ with the introduction of more advanced grammatical structures, vocabulary, and characters.

Prerequisite: Japanese $2203\{203\}$ or permission of the instructor.
2205 \{205\} c. Advanced-Intermediate Japanese I. Fall 2013. Hiroo Aridome.
Increases students' proficiency in both spoken and written modern Japanese. A variety of written and audiovisual materials are used to consolidate and expand mastery of more advanced grammatical structures and vocabulary. Includes oral presentation, discussion, and composition in Japanese.

Prerequisite: Japanese $2204\{204\}$, placement in Japanese $2205\{205\}$, or permission of the instructor.
$2206\{206\}$ c. Advanced-Intermediate Japanese II. Spring 2014. Hiroo Aridome.
A continuation and progression of materials used in Japanese 2205 \{205\}.
Prerequisite: Japanese 2205 \{205\} or permission of the instructor.
3307 \{307\} c. Advanced Japanese I. Fall 2013. Hiroo Aridome.
Designed to develop mastery of the spoken and written language. Materials from various sources such as literature, newspapers, and cultural journals as well as TV programs and films are used. Assigned work includes written compositions and oral presentations.

Prerequisite: Japanese $2206\{206\}$, placement in Japanese $3307\{307\}$, or permission of the instructor.

3308 \{308\} c. Advanced Japanese II. Spring 2014. Hiroo Aridome.
A continuation of Japanese 307. Continues to develop oral and written fluency in informal and formal situations. Reading of contemporary texts of literature, business, and local topics.
Prerequisite: Japanese 3307 \{307\} or permission of the instructor.
4000-4003 \{401-404\} c. Independent Study in Japanese. The Program.
4029 \{405\} c. Collaborative Study in Japanese. The Program.

## Bioghemistry

Anne E. McBride, Program Director<br>Penny Westfall, Program Coordinator<br>Professor: Bruce D. Kohorn (Biology)<br>Associate Professor: Anne E. McBride (Biology)<br>Assistant Professors: Danielle H. Dube (Chemistry), Benjamin C. Gorske $\dagger$ (Chemistry)<br>Laboratory Instructor: Kate R. Farnham<br>Contributing Faculty: Richard D. Broene, Barry A. Logan

Note: Following is a list of required and elective courses for the major in biochemistry. Please refer to the departments of Biology, Chemistry, Mathematics, and Physics for further information, including course descriptions, instructors, and semesters when these courses will next be offered.

## Requirements for the Major in Biochemistry

All majors must complete the following courses: Biology 1102 or 1109 \{102 or 109\}, 2124 $\{224\}$; Chemistry 1102 or $1109\{102$ or 109$\}, 2250\{225\}, 2260\{226\}, 2320\{232\}, 2510$ $\{251\}$; Mathematics 1600 and $1700\{161$ and 171\}; Physics 1130 and $1140\{103$ and 104\}. Majors must also complete two courses from the following: Biology $2112\{212\}, 2113\{213\}$, $2114\{214\}, 2118\{218\}, 2175\{217\}, 2210\{210\}$ (same as Environmental Studies 2223 $\{210\}), 2553\{253\}, 2557\{257\}, 2566\{266\}, 2586\{286\}, 3304\{304\}, 3310\{310\}, 3314$ $\{314\}, 3317\{317\}, 3333\{333\}, 3397\{307\}, 4000-4003\{401-404\}$; Chemistry $2100\{210\}$, $2400\{240\}, 2520\{252\}, 3050\{305\}$ (same as Environmental Studies $3905\{305\}$ ), 3060 $\{306\}$ (same as Environmental Studies $3906\{306\}$ ), $3250\{325\}, 3270\{327\}, 3310\{331\}$, 4000-4003 \{401-404\}; Physics $2130\{223\}, 4000-4003\{401-404\}$.

Students may include one advanced independent study (numbered 4000-4003 \{401-404\}) as an elective.

## Bowdoin College does not offer a minor in biochemistry.

## Advanced Courses

4000-4003 \{401-404\} a. Advanced Independent Study in Biochemistry. The Program.
4029 \{405\} a. Advanced Collaborative Study in Biochemistry. The Program.
4050-4051 a. Honors Project in Biochemistry. The Program.

## Biology

Bruce D. Kohorn, Department Chair<br>Julie J. Santorella, Department Coordinator

Professors: Patsy S. Dickinson (Neuroscience), Amy S. Johnson, Bruce D. Kohorn<br>(Biochemistry), John Lichter (Environmental Studies), Barry A. Logan, Nathaniel T. Wheelwright $\dagger$<br>Associate Professors: David Carlon, Hadley Wilson Horch (Neuroscience), Anne E. McBride (Biochemistry), Michael F. Palopoli<br>Assistant Professors: Jack R. Bateman, Vladimir Douhovnikoff, William R. Jackman<br>Director of Bowdoin Scientific Station on Kent Island: Damon P. Gannon<br>Visiting Faculty: Samuel H. Taylor<br>Laboratory Instructors: Pamela J. Bryer, Nancy J. Curtis, Shana Stewart Deeds, Kate R. Farnham, Janet Gannon, Stephen A. Hauptman, Jaret S. Reblin, Elizabeth Koski Richards

## Requirements for the Major in Biology

The major consists of eight courses in the department exclusive of independent study and courses below the introductory level. Majors are required to complete Biology 1102 or 1109 $\{102$ or 109$\}$, and three of the eleven core courses. Core courses are divided into three groups. One course must be taken from each group. Majors are also required to complete four elective courses, at least two of which have to be higher than $2499\{249\}$.

Group 1:
Genetics and Molecular Biology; Microbiology; Developmental Biology; Biochemistry and Cell Biology; Neurobiology

## Group 2:

Comparative Physiology; Plant Physiology; Developmental Biology; Neurobiology
Group 3:
Behavioral Ecology and Population Biology; Biology of Marine Organisms; Evolution; Biodiversity and Conservation Science
Majors must also complete: Mathematics $1700\{171\}$ (or above), or Mathematics $1600\{161\}$ and either Mathematics $1300\{165\}$ or Psychology $2520\{252\}$. Additional requirements are Physics $1130\{103\}$ (or any physics course that has a prerequisite of Physics $1130\{103\}$ ), Chemistry 1102 or 1109 \{102 or 109\}, and Chemistry $2250\{225\}$. Students are advised to complete Biology 1102 or 1109 \{102 or 109\} and the chemistry, mathematics, and physics courses by the end of the sophomore year. Students planning postgraduate education in science or the health professions should note that graduate and professional schools are likely to have additional admissions requirements in chemistry, mathematics, and physics. Advanced placement credits may not be used to fulfill any of the course requirements for the major.

## Grade Requirements

Only one D grade is allowed in courses required for the major or minor. This D must be offset by a grade of B or higher in another course also required for the major/minor. Courses that will count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail).

## Interdisciplinary Majors

The department participates in interdisciplinary programs in biochemistry, environmental studies, and neuroscience. See pages 72, 138, and 248.

## Requirements for the Minor in Biology

The minor consists of five courses within the department, exclusive of independent study, numbered $1102\{102\}$ or above, with two courses to be taken from two of the three core groups. See Requirements for the Major in Biology.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1026 \{26\} a. Adventures in Neuroscience: Aphasias, Auras, and Axons. Fall 2013. Hadley Horch.

## [1027 \{27\} a. Evolutionary Links.]

## Introductory, Intermediate, and Advanced Courses

1056 \{56\} a - INS. Ecology and Society. Spring 2015. Vladimir Douhovnikoff.
Presents an overview of ecology covering basic ecological principles and the relationship between human activity and the ecosystems that support us. Examines how ecological processes, both biotic (living) and abiotic (non-living), influence the life history of individuals, populations, communities, and ecosystems. Encourages student investigation of environmental interactions and how human-influenced disturbance is shaping the environment. Required field trips illustrate the use of ecological concepts as tools for interpreting local natural history. (Same as Environmental Studies 1056 \{56\}.)

1059 \{59\} a - INS. Plants and Symbiosis. Spring 2014. Samuel H. Taylor.
Interdependence between organisms is a ubiquitous feature in biology with important consequences for how we think about the world. Plant biology is used as a starting point to explore a variety of inter-species, particularly symbiotic, interactions observed in nature. Theories of the origin, maintenance, and persistence of symbioses are discussed. Biological examples include ancient intracellular symbioses underlying photosynthesis and respiration, plus interactions between plants, pathogens, parasites, and symbionts, including nitrogen fixers and nutrient scavengers important to human food supply. An experimental research project in plant biology demonstrates the scientific process.

1085 \{85\} a - INS. From Brain to Behavior. Fall 2015. Hadley Wilson Horch.
All human social, cognitive, and sexual behaviors require complex functions of the nervous system. For example, the brain and spinal cord together work to control body movements, senses, learning and memory, language, emotions, dreaming, and all other complex thought processes. Surveys the biology underlying these nervous system functions. Diseases of the brain, drug actions, injury, and repair are also discussed. Includes comparative examinations of nervous systems in other organisms.

1090 \{90\} a - INS. Understanding Climate Change. Fall 2013. David Carlon.
Why is the global climate changing and how will biological systems respond? Includes sections on climate systems and climate change, reconstructing ancient climates and past biological responses, predicting future climates and biological responses, climate policy, the energy crisis, and potential solutions. Includes a few field trips and laboratories designed to illustrate
approaches to climate change science at the cellular, physiological, and ecological levels. (Same as Environmental Studies $1090\{90\}$.)

1101 \{101\} a - MCSR, INS. Biological Principles I. Fall 2013. Anne E. McBride.
The first in a two-semester introductory biology sequence. Topics include fundamental principles of cellular and molecular biology with an emphasis on providing a problem-solving approach to an understanding of genes, RNA, proteins, and cell structure and communication. Focuses on developing quantitative skills, as well as critical thinking and problem solving skills. Lecture and weekly laboratory/discussion groups. To ensure proper placement, students must take the biology placement examination and must be recommended for placement in Biology 1101 \{101\}. Students continuing in biology will take Biology 1102 \{102\}, not Biology 1109 $\{109\}$, as their next biology course.

Prerequisite: Placement in Biology 1101 \{101\}.
1102 \{102\} a - MCSR, INS. Biological Principles II. Spring 2014. Amy Johnson.
The second in a two-semester introductory biology sequence. Emphasizes fundamental biological principles extending from the physiological to the ecosystem level of living organisms. Topics include physiology, ecology, and evolutionary biology, with a focus on developing quantitative skills as well as critical thinking and problem solving skills. Lecture and weekly laboratory/discussion groups.
Prerequisite: Biology $1101\{101\}$.
1109 \{109\} a - MCSR, INS. Scientific Reasoning in Biology. Every semester. Fall 2013. Jack
R. Bateman and Michael F. Palopoli. Spring 2014. Vladimir Douhovnikoff and William R. Jackman.

Lectures examine fundamental biological principles, from the sub-cellular to the ecosystem level with an emphasis on critical thinking and the scientific method. Laboratory sessions will help develop a deeper understanding of the techniques and methods used in the biological science by requiring students to design and conduct their own experiments. Lecture and weekly laboratory/discussion groups. To ensure proper placement, students must take the biology placement examination and must be recommended for placement in Biology 1109 \{109\}.

Prerequisite: Placement in Biology 1109 \{109\}.
[1154 \{154\} a - INS. Ecology of the Gulf of Maine and Bay of Fundy. (Same as Environmental Studies 1154 \{154\}.)]

1158 \{158\} a - MCSR, INS. Perspectives in Environmental Science. Every spring. Spring 2014. David R. Griffith and John Lichter.

Functioning of the earth system is defined by the complex and fascinating interaction of processes within and between four principal spheres: land, air, water, and life. Leverages key principles of environmental chemistry and ecology to unravel the intricate connectedness of natural phenomena and ecosystem function. Fundamental biological and chemical concepts are used to understand the science behind the environmental dilemmas facing societies as a consequence of human activities. Laboratory sessions consist of local field trips, laboratory experiments, group research, case study exercises, and discussions of current and classic scientific literature. (Same as Chemistry $1105\{105\}$ and Environmental Studies 2201 \{201\}.)

Prerequisite: One course numbered $1100\{100\}$ or higher in biology, chemistry, earth and oceanographic science, or physics.

1174 \{174\} a - MCSR. Biomathematics. Fall 2014. Mary Lou Zeeman.
A study of mathematical modeling in biology, with a focus on translating back and forth between biological questions and their mathematical representation. Biological questions are drawn from a broad range of topics, including disease, ecology, genetics, population dynamics, and neurobiology. Mathematical methods include discrete and continuous (ODE) models and simulation, box models, linearization, stability analysis, attractors, oscillations, limiting behavior, feedback, and multiple time-scales. Three hours of class meetings and 1.5 hours of computer laboratory sessions per week. Within the biology major, this course may count as the mathematics credit or as biology credit, but not both. Students are expected to have taken a year of high school or college biology prior to this course. (Same as Mathematics 2108 \{204\}.)

Prerequisite: Mathematics $1600\{161\}$ or higher, placement in Mathematics 2108, or permission of the instructor.

2112 \{212\} a - MCSR, INS. Genetics and Molecular Biology. Every spring. Jack R. Bateman.
Integrated coverage of organismic and molecular levels of genetic systems. Topics include modes of inheritance, the structure and function of chromosomes, the mechanisms and control of gene expression, recombination, mutagenesis, techniques of molecular biology, and human genetic variation. Laboratory sessions are scheduled.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.
2118 \{218\} a - INS. Microbiology. Every spring. Anne E. McBride.
An examination of the structure and function of microorganisms, from viruses to bacteria to fungi, with an emphasis on molecular descriptions. Subjects covered include microbial structure, metabolism, and genetics. Control of microorganisms and environmental interactions are also discussed. Laboratory sessions every week. Chemistry $2250\{225\}$ is recommended.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.
2124 \{224\} a - MCSR, INS. Biochemistry and Cell Biology. Every fall. Bruce D. Kohorn.
Focuses on the structure and function of cells as we have come to know them through the interpretation of direct observations and experimental results. Emphasis is on the scientific (thought) processes that have allowed us to understand what we know today, emphasizing the use of genetic, biochemical, and optical analysis to understand fundamental biological processes. Covers details of the organization and expression of genetic information, and the biosynthesis, sorting, and function of cellular components within the cell. Concludes with examples of how cells perceive signals from other cells within cell populations, tissues, organisms, and the environment. Three hours of lab each week. Chemistry $2250\{225\}$ is recommended. This course satisfies a requirement for the biochemistry major; it is not open to students who have credit for Biology $2423\{223\}$.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2135 \{213\} a - MCSR, INS. Neurobiology. Every fall. Hadley Wilson Horch.
Examines fundamental concepts in neurobiology from the molecular to the systems level. Topics include neuronal communication, gene regulation, morphology, neuronal development,
axon guidance, mechanisms of neuronal plasticity, sensory systems, and the molecular basis of behavior and disease. Weekly lab sessions introduce a wide range of methods used to examine neurons and neuronal systems.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2175 \{217\} a - MCSR, INS. Developmental Biology. Every fall. William R. Jackman.
An examination of current concepts of embryonic development, with an emphasis on experimental design. Topics include cell fate specification, morphogenetic movements, cell signaling, differential gene expression and regulation, organogenesis, and the evolutionary context of model systems. Project-oriented laboratory work emphasizes experimental methods. Lectures and three hours of laboratory per week.
Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2210 \{210\} a - MCSR, INS. Plant Physiology. Fall 2013. Samuel H. Taylor.
An introduction to the physiological processes that enable plants to grow under the varied conditions found in nature. General topics discussed include the acquisition, transport, and use of water and mineral nutrients; photosynthetic carbon assimilation; and the influence of environmental and hormonal signals on development and morphology. Adaptation and acclimation to extreme environments and other ecophysiological subjects are also discussed. Weekly laboratories reinforce principles discussed in lecture and expose students to modern research techniques. (Same as Environmental Studies 2223 \{210\}.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2214 \{214\} a - MCSR, INS. Comparative Physiology. Every spring. Patsy S. Dickinson.
An examination of animal function, from the cellular to the organismal level. The underlying concepts are emphasized, as are the experimental data that support our current understanding of animal function. Topics include the nervous system, hormones, respiration, circulation, osmoregulation, digestion, and thermoregulation. Labs are short, student-designed projects involving a variety of instrumentation. Lectures and four hours of laboratory work per week.
Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

## 2315 \{215\} a - MCSR, INS. Behavioral Ecology and Population Biology. Fall 2014. Nathaniel T. Wheelwright.

Study of the behavior of animals and plants, and the interactions between organisms and their environment. Topics include population growth and structure, and the influence of competition, predation, and other factors on the behavior, abundance, and distribution of plants and animals. Laboratory sessions, field trips, and research projects emphasize concepts in ecology, evolution and behavior, research techniques, and the natural history of local plants and animals. Optional field trip to the Bowdoin Scientific Station on Kent Island. (Same as Environmental Studies 2224 \{215\}.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement i biology at the 2000 level.

## Courses of Instruation

2316 \{216\} a - MCSR, INS. Evolution. Every spring. Michael F. Palopoli.
Examines one of the most breathtaking ideas in the history of science-that all life on this planet descended from a common ancestor. An understanding of evolution illuminates every subject in biology, from molecular biology to ecology. Provides a broad overview of evolutionary ideas, including the modern theory of evolution by natural selection, evolution of sexual reproduction, patterns of speciation and macro-evolutionary change, evolution of sexual dimorphisms, selfish genetic elements, and kin selection. Laboratory sessions are devoted to semester-long, independent research projects.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2319 \{219\} a - MCSR, INS. Biology of Marine Organisms. Fall 2013. Amy Johnson.
The study of the biology and ecology of marine mammals, seabirds, fish, intertidal and subtidal invertebrates, algae, and plankton. Also considers the biogeographic consequences of global and local ocean currents on the evolution and ecology of marine organisms. Laboratories, field trips, and research projects emphasize natural history, functional morphology, and ecology. Lectures and four hours of laboratory or field trip per week. One weekend field trip included. (Same as Environmental Studies 2229 \{219\}.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.
2325 \{225\} a - MCSR, INS. Biodiversity and Conservation Science. Fall 2013. John Lichter.
People rely on nature for food, materials, medicines, and recreation; yet the fate of Earth's biodiversity is rarely given priority among the many pressing problems facing humanity today. Explores the interactions within and among populations of plants, animals, and microorganisms, and the mechanisms by which those interactions are regulated by the physical and chemical environment. Major themes are biodiversity and the processes that maintain biodiversity, the relationship between biodiversity and ecosystem function, and the science underlying conservation efforts. Laboratory sessions consist of student research, local field trips, laboratory exercises, and discussions of current and classic ecological literature. (Same as Environmental Studies 2225 \{225\}.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher; or Environmental Studies 2201 \{201\} (same as Biology 1158 \{158\} and Chemistry $1105\{105\}$ ).

2423 \{223\} a. Biochemistry of Cellular Processes. Spring 2014. Bruce Kohorn.
Explores the biochemical mechanisms that underlie the basis of life. Starts with the chemistry of proteins, DNA, lipids, and carbohydrates to build the main elements of a cell. Moves on to the process of gene organization and expression, emphasizing the biochemical mechanisms that regulate these events. Explores next the organization of the cell, with emphasis on genetic and biochemical regulation. Finishes with specific examples of multicellular interactions, including development, cancer, and perception of the environment. This course does NOT satisfy a requirement for the biochemistry major and is not open to students who have credit for Biology $2124\{224\}$. Students who intend to enroll in Biology $2124\{224\}$ should not register for Biology 2423 \{223\}.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher; and Chemistry 1102 \{102\} or 1109 \{109\}.
$2553\{253\}$ a. Neurophysiology. Every fall. Patsy S. Dickinson.
A comparative study of the function of the nervous system in invertebrate and vertebrate animals. Topics include the mechanism that underlie both action potentials and patterns of spontaneous activity in individual nerve cells, interactions between neurons, and the organization of neurons into larger functional units. Lectures and four hours of laboratory work per week.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher; and Biology 2135 $\{213\}$ or $2214\{214\}$, or Psychology $2050\{218\}$.
2554 \{254\} a - MCSR, INS. Biomechanics. Spring 2014. Amy S. Johnson.
Examines the quantitative and qualitative characterization of organismal morphology, and explores the relationship of morphology to measurable components of an organism's mechanical, hydrodynamic, and ecological environment. Lectures, labs, field trips, and individual research projects emphasize (1) analysis of morphology, including analyses of the shape of individual organisms as well as of the mechanical and molecular organization of the tissues; (2) characterization of water flow associated with organisms; and (3) analyses of the ecological and mechanical consequences to organisms of their interaction with their environment. Introductory physics and calculus are strongly recommended.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher; or one course numbered 1100-1999 \{100-199\} in chemistry, earth and oceanographic science, mathematics, or physics.

## 2557 \{257\} a. Immunology. Fall 2015. Anne E. McBride.

Covers the development of the immune response, the cell biology of the immune system, the nature of antigens, antibodies, B and T cells, and the complement system. The nature of natural immunity, transplantation immunology, and tumor immunology also considered.

Prerequisite: One of the following: Biology $2112\{212\}, 2118\{218\}, 2124\{224\}$, or 2175 $\{217\}$; or permission of the instructor.

2558 \{258\} a. Ornithology. Spring 2015. Nathaniel T. Wheelwright.
Advanced study of the biology of birds, including anatomy, physiology, distribution, and systematics, with an emphasis on avian ecology and evolution. Through integrated laboratory sessions, field trips, discussion of the primary literature, and independent research, students learn identification of birds, functional morphology, and research techniques such as experimental design, behavioral observation, and field methods. Optional field trip to the Bowdoin Scientific Station on Kent Island.

Prerequisite: Biology 2315 \{215\} (same as Environmental Studies 2224 \{215\}) or 2325 \{225\} (same as Environmental Studies $2225\{225\}$ ).

2566 \{266\} a. Molecular Neurobiology. Every spring. Hadley Wilson Horch.
Examination of the molecular control of neuronal structure and function. Topics include the molecular basis of neuronal excitability, the factors involved in chemical and contact-mediated neuronal communication, and the complex molecular control of developing and regenerating nervous systems. Weekly laboratories complement lectures by covering a range of molecular and cellular techniques used in neurobiology and culminate in brief independent projects.

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher; and one of the following: Biology $2112\{212\}, 2124\{224\}, 2135\{213\}, 2553\{253\}$, or Psychology $2050\{218\}$.

2571 \{271\} a. Biology of Marine Mammals. Fall 2014. Damon P. Gannon.
Examines the biology of cetaceans, pinnipeds, sirenians, and sea otters. Topics include diversity, evolution, morphology, physiology, ecology, behavior, and conservation. Detailed consideration given to the adaptations that allow these mammals to live in the sea. Includes lecture, discussion of primary literature, lab, field trips, and student-selected case studies. Laboratory and field exercises consider anatomy, biogeography, social organization, foraging ecology, population dynamics, bioacoustics, and management of the marine mammal species found in the Gulf of Maine. (Same as Environmental Studies 2271 \{271\}.)
Prerequisite: One of the following: Biology $1154\{154\}$ (same as Environmental Studies 1154 $\{154\}), 1158\{158\}$ (same as Chemistry $1105\{105\}$ and Environmental Studies 2201 \{201\}), $2315\{215\}$ (same as Environmental Studies $2224\{215\}$ ), $2316\{216\}, 2319\{219\}$ (same as Environmental Studies 2229 \{219\}), or 2325 \{225\} (same as Environmental Studies 2225 \{225\}).

2574 \{274\} a - MCSR, INS. Marine Conservation Biology. Fall 2013. Damon P. Gannon.
Introduces key biological concepts that are essential for understanding conservation issues. Explores biodiversity in the world's major marine ecosystems; the mechanisms of biodiversity loss at the genetic, species, and ecosystem levels; and the properties of marine systems that pose unique conservation challenges. Investigates the theory and practice of marine biodiversity conservation, focusing on the interactions among ecology, economics, and public policy. Consists of lecture/discussion, lab, field trips, guest seminars by professionals working in the field, and student-selected case studies. (Same as Environmental Studies 2274 \{274\}.)
Prerequisite: One of the following: Biology $1154\{154\}$ (same as Environmental Studies $1154\{154\}$ ), $2315\{215\}$ (same as Environmental Studies 2224 \{215\}), 2319 \{219\} (same as Environmental Studies 2229 \{219\}), or 2325 \{225\} (same as Environmental Studies 2225 $\{225\}$ ); Environmental Studies $1101\{101\}$ or $2201\{201\}$ (same as Biology $1158\{158\}$ and Chemistry $1105\{105\}$ ); or permission of the instructor.
[2580 \{280\} a. Plant Responses to the Environment. (Same as Environmental Studies 2280 \{280\}.)]
$2581\{281\}$ a. Forest Ecology and Conservation. Fall 2014. Vladimir Douhovnikoff.
An examination of how forest ecology and the principles of silviculture inform forest ecosystem restoration and conservation. Explores ecological dynamics of forest ecosystems, the science of managing forests for tree growth and other goals, natural history and historic use of forest resources, and the state of forests today, as well as challenges and opportunities in forest restoration and conservation. Consists of lecture, discussions, field trips, and guest seminars by professionals working in the field. (Same as Environmental Studies 2281 \{281\}.)
2970-2973 \{291-294\} a. Intermediate Independent Study in Biology. The Department.
2999 \{299\} a. Intermediate Collaborative Study in Biology. The Department.
3304 \{304\} a. The RNA World. Fall 2013. Anne E. McBride.
Seminar exploring the numerous roles of ribonucleic acid, from the discovery of RNA as a cellular messenger to the development of RNAs to treat disease. Topics also include RNA enzymes, interactions of RNA viruses with host cells, RNA tools in biotechnology, and RNA as a potential origin of life. Focuses on discussions of papers from the primary literature.
Prerequisite: One of the following: Biology $2112\{212\}, 2118\{218\}, 2124\{224\}$; or Chemistry $2320\{232\}$; or permission of the instructor.

3314 \{314\} a. Advanced Genetics and Epigenetics. Fall 2013. Jack R. Bateman.
A seminar exploring the complex relationship between genotype and phenotype, with an emphasis on emerging studies of lesser-known mechanisms of inheritance and gene regulation. Topics include dosage compensation, parental imprinting, paramutation, random monoallelic expression, gene regulation by small RNAs, DNA elimination, copy number polymorphism, and prions. Reading and discussion of articles from the primary literature.

Prerequisite: Biology 2112 \{212\}.
3316 a. The Biology of Agriculture. Spring 2014. Samuel H. Taylor.
Highlights biological principles from evolution and ecology applicable to development and sustainability of agriculture. Addresses productivity limits in agro-ecosystems and challenges facing modern agriculture. Discusses trophic structure of agricultural systems, plant performance in agricultural environments, features of domesticated species, coevolution of weeds and crops, pesticide development and pesticide resistance, impacts of land use change, transgenics, and organic farming.

Prerequisite: One of the following: Biology $2210\{210\}, 2315\{215\}$ (same as Environmental Studies $2224\{215\}$ ), $2316\{216\}$, or $2325\{225\}$.

3317 \{317\} a. Molecular Evolution. Spring 2014. Michael F. Palopoli.
Examines the dynamics of evolutionary change at the molecular level. Topics include neutral theory of molecular evolution, rates and patterns of change in nucleotide sequences and proteins, molecular phylogenetics, and genome evolution. Students read and discuss papers from the scientific literature, and complete independent projects in the laboratory.
Prerequisite: One of the following: Biology $2112\{212\}, 2118\{218\}, 2124\{224\}, 2175\{217\}$, or $2316\{216\}$; or permission of the instructor.

3325 \{325\} a. Topics in Neuroscience. Fall 2013. Patsy S. Dickinson.
An advanced seminar focusing on one or more aspects of neuroscience, such as neurotoxins, modulation of neuronal activity, or the neural basis of behavior. Students read and discuss original papers from the literature.

Prerequisite: One of the following: Biology $2135\{213\}, 2553\{253\}$, or $2566\{266\}$; or Psychology $2750\{275\}$ or $2751\{276\}$; or permission of the instructor.
3329 \{329\} a. Neuronal Regeneration. Fall 2014. Hadley Wilson Horch.
The consequences of neuronal damage in humans, especially in the brain and spinal cord, are frequently devastating and permanent. Invertebrates, on the other hand, are often capable of complete functional regeneration. Examines the varied responses to neuronal injury in a range of species. Topics include neuronal regeneration in planaria, insects, amphibians, and mammals. Students read and discuss original papers from the literature in an attempt to understand the basis of the radically different regenerative responses mounted by a variety of neuronal systems.

Prerequisite: One of the following: Biology $2112\{212\}, 2124\{224\}, 2135\{213\}, 2175$ $\{217\}, 2553\{253\}, 2566\{266\}$; or Psychology $2750\{275\}$ or $2751\{276\}$; or permission of the instructor.

3333 \{333\} a. Advanced Cell and Molecular Biology. Spring 2014. Bruce D. Kohorn.
An exploration of the multiple ways cells have evolved to transmit signals from their external environment to cause alterations in cell architecture, physiology, and gene expression.

Examples are drawn from both single-cell and multi-cellular organisms, including bacteria, fungi, algae, land plants, insects, worms, and mammals. Emphasis is on the primary literature, with directed discussion and some background introductory remarks for each class.

Prerequisite: Biology $2124\{224\}$ or permission of the instructor.
3381 \{381\} a. Ecological Genetics. Fall 2013. Vladimir Douhovnikoff.
Covers the principles of population and quantitative genetics from an ecological perspective. Focuses on key concepts in the evolution of natural and managed populations, including subjects such as the heritability of ecologically important traits, inbreeding effects, and random genetic drift. Discusses various field and lab methods using genetic information in the study of ecology.
Prerequisite: One of the following: Biology $2315\{215\}, 2319\{219\}, 2325\{225\}, 2571\{271\}$, $2580\{280\}$, or $2581\{281\}$.
3394 \{394\} a. Ecological Recovery of Maine’s Coastal Ecosystems. Fall 2014. John Lichter.
Maine's coastal ecosystems once supported prodigious abundances of wildlife that supported human communities for millennia before succumbing to multiple anthropogenic stresses in the mid-twentieth century. Today, we need to understand the most pressing ecological and social constraints limiting recovery of these once vital ecosystems to achieve sustainable ecological recovery and provision of ecosystem services. Objective is to better understand the biophysical and social constraints limiting ecological recovery, and to rethink the failed management policies of the past. Students participate in a thorough review of the relevant scientific and historical literature and conduct a group study investigating some aspect of the ecology and/or the environmental history of Maine's coastal ecosystems. (Same as Environmental Studies 3994 \{394\}.)
Prerequisite: One of the following: Biology $2315\{215\}$ (same as Environmental Studies 2224 $\{215\}$ ), 2319 \{219\} (same as Environmental Studies 2229 \{219\}), or 2325 \{225\} (same as Environmental Studies $2225\{225\}$ ); or Environmental Studies $2201\{201\}$ (same as Biology 1158 \{158\} and Chemistry 1105 \{105\}).
3397 \{307\} a. Evolutionary Developmental Biology. Spring 2014. William R. Jackman.
Advanced seminar investigating the synergistic but complex interface between the fields of developmental and evolutionary biology. Topics include the evolution of novel structures, developmental constraints to evolution, evolution of developmental gene regulation, and the generation of variation. Readings and discussions from the primary scientific literature.
Prerequisite: Biology $2175\{217\}$ or $2316\{216\}$, or permission of the instructor.
4000-4003 \{401-404\} a. Advanced Independent Study in Biology. The Department.
4029 \{405\} a. Advanced Collaborative Study in Biology. The Department.
4050-4051 a. Honors Project in Biology. The Department.

## Chemistry

Richard D. Broene, Department Chair<br>Penny Westfall, Department Coordinator

Professors: Richard D. Broene, Jeffrey K. Nagle**, Elizabeth A. Stemmler, Dharni Vasudevan $\dagger$ (Environmental Studies)
Assistant Professors: Danielle H. Dube (Biochemistry), Soren N. Eustis, Benjamin C. Gorske†, (Biochemistry)
Lecturer: Michael P. Danahy
Visiting Faculty: Yi Jin Gorske, David R. Griffith, Daniel M. Steffenson
Laboratory Instructors: Rene L. Bernier, Martha B. Black, Beverly G. DeCoster, Judith C. Foster, Colleen T. McKenna, Paulette M. Messier

## Requirements for the Major in Chemistry

The chemistry major consists of a core curriculum and additional electives within a single area of concentration. The core curriculum requirements are Chemistry 1101 and 1102 \{101 and 102$\}$ or Chemistry $1109\{109\}, 2100\{210\}, 2250\{225\}, 2400\{240\}$; Mathematics 1700 $\{171\}$ or higher; and Physics 1130 and $1140\{103$ and 104\}. (For students who place into Physics $1140\{104\}$, only one physics course is required.) Students are advised to begin their core curriculum as soon as possible. Depending on preparation and placement results, some students may begin with advanced courses.

## Area of Concentration Requirements:

Chemical: Chemistry $2260\{226\}, 2510\{251\}$, and $2520\{252\}$; and any two electives from the following: Chemistry $2320\{232\}$ and chemistry courses at the advanced level (numbered 3000-3999 \{300-399\}). (Only one course numbered 4000-4051 \{401-451\} may count toward the major.)

Educational: Chemistry 2510 or 2520 \{251 or 252\}; Education 1020 or 1101 \{20 or 101\}, $2203\{203\}, 3301\{301\}, 3302\{303\}$; and two additional chemistry electives selected in consultation with the advisor.

## Environmental:

1. Chemistry $2510\{251\}$.
2. Four electives that must include at least two molecular perspective courses from the following: Chemistry $2050\{205\}$ (same as Earth and Oceanographic Science $2325\{206\}$ and Environmental Studies $2205\{211\}$ ), $3040\{304\}, 3050\{305\}$ (same as Environmental Studies $3905\{305\}$ ), $3060\{306\}$ (same as Environmental Studies $3906\{306\}$ ), $3100\{310\}, 3400$ \{340\}.
3. At least one environmental perspectives course from the following: Chemistry 1105 $\{105\}$ (same as Biology $1158\{158\}$ and Environmental Studies 2201 \{201\}), Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 \{200\}), 2585 $\{282\}$ (same as Environmental Studies $2282\{282\}$ ); Physics $2810\{257\}$ (same as Earth and Oceanographic Science 2810 \{257\} and Environmental Studies 2253 \{253\}), 3810 \{357\} (same as Earth and Oceanographic Science $3050\{357\}$ and Environmental Studies 3957 $\{357\}$ ); Biology $2325\{225\}$ (same as Environmental Studies $2225\{225\}$ ), or 3394 \{394\} (same as Environmental Studies 3994 \{394\}).

At least one course from the concentration must be at the advanced level (numbered 3000-3999 \{300-399\}).

Geochemical: Chemistry $2050\{205\}$ (same as Earth and Oceanographic Science 2325 \{206\}), $2510\{251\}$, and $3100\{310\}$; and at least two electives from the following: Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ), $2165\{262\}$, $2585\{282\}$ (same as Environmental Studies $2282\{282\}$ ), $3020\{302\}$, or 3115 \{315\}. At least one elective from the concentration must be at the advanced level (numbered 3000-3999 \{300-399\}).

Neurochemical: Biology 1102 or 1009 \{102 or 109\}, Chemistry $2260\{226\}, 2320\{232\}$, and 2510 or $2520\{251$ or 252$\}$; and two electives from the following: Biology $2135\{213\}$, $2553\{253\}, 2566\{266\}$; and one advanced neuroscience course (numbered 3000-3999 \{300-399\}).

Only one grade of D may be counted for the major or minor. This D must be offset by a grade of B or higher in another course also required for the major or minor. Generally, courses for the major or minor must be taken for regular letter grades (not Credit/D/ Fail). Under special circumstances, however, a student may petition the department chair to allow one required chemistry course or one other course required for the major or minor (Mathematics 1600 or $1700\{161$ or 171$\}$, or Physics 1130 or $1140\{103$ or 104$\}$ ) to be taken with the Credit/D/Fail grading option.

The chemistry major can serve as preparation for many career paths after college, including the profession of chemistry, graduate studies in the sciences, medicine, secondary school teaching, and many fields in the business world. The department offers programs based on the interests and goals of the student; therefore, a prospective major should discuss his or her plans with the department as soon as possible. Regardless of career goals, students are encouraged to develop their critical thinking and problem-solving skills by participating in a collaborative student-faculty research project (Chemistry 2970-2999 \{291-299\}, 4000-4029 \{401-405\}, or summer research).

The department also offers an American Chemical Society-certified major in chemistry. The requirements for certification are met by taking the courses required for the chemical pathway through the major along with: (1) one extra course at the 3000 (300) level with an acceptable lab component; or (2) an additional 3000 (300) level course and one semester of researchbased independent study. Other pathways through the major can lead to ACS certification by supplementing those pathways with extra courses in chemistry; students interested in this certification program should consult with the department.

## Independent Study

Students may engage in independent study at the intermediate (2970-2999 \{291-299\}) or advanced (4000-4029 \{401-405\}) level.

## Interdisciplinary Majors

The department participates in interdisciplinary programs in biochemistry, chemical physics, and environmental studies. See pages 72, 216, and 138.

## Requirements for the Minor in Chemistry

The minor consists of four chemistry courses at or above the intermediate level (numbered 2000-2969 \{200-289\}). Biochemistry majors may not minor in chemistry.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1011 \{11\} a. Great Issues in Science. Fall 2013. Daniel M. Steffenson.

## Introductory, Intermediate, and Advanced Courses

1058 \{58\} a - INS. Drug Discovery. Fall 2013. Danielle Dube.
The process of drug discovery of medicinal compounds has evolved over millennia, from the shaman's use of medicinal herbs to the highly evolved techniques of rational design and high-throughput screening used by today's pharmaceutical industry. Examines past and present approaches to drug discovery, with an emphasis on the natural world as a source of drugs, historical examples of drug discovery, and the experiments undertaken to validate a drug. Encourages students to take initial steps to identify novel therapeutics and to directly compare conventional versus herbal remedies in integrated laboratory exercises. Assumes no background in science. Not open to students who have credit for a chemistry course numbered $1100\{100\}$ or higher.

1059 \{59\} a - INS. Chemistry of Consumer Goods. Fall 2013. Yi Jin Gorske.
Natural and synthetic "chemicals" make up virtually everything we purchase and consume from breakfast cereals to soaps, shampoo bottles, and over-the-counter medications. Examines the chemical components of food, drugs, soaps, plastics, and other consumer goods we encounter daily. Explores scientific resources that can be used to obtain information on product components, safety, and regulations. Also considers topics related to some of the current safety concerns raised by chemicals found in common household items through case studies and research projects. Assumes no background in science. Not open to students who have credit for a chemistry course numbered $1100\{100\}$ or higher.

1101 \{101\} a - INS. Introductory Chemistry I. Every fall. Michael P. Danahy and Jeffrey K. Nagle.

The first course in a two-semester introductory college chemistry sequence. Introduction to the states of matter and their properties, stoichiometry and the mole unit, properties of gases, thermochemistry, atomic structure, and periodic properties of the elements. Lectures, review sessions, and four hours of laboratory work per week. To ensure proper placement, students must take the chemistry placement examination and must be recommended for placement in Chemistry 1101 \{101\}. Students continuing in chemistry will take Chemistry 1102 \{102\}, not Chemistry $1109\{109\}$, as their next chemistry course.
$1102\{102\}$ a - MCSR, INS. Introductory Chemistry II. Every spring. The Department.
The second course in a two-semester introductory college chemistry sequence. Introduction to chemical bonding and intermolecular forces; characterization of chemical systems at equilibrium and spontaneous processes; the rates of chemical reactions; and special topics. Lectures, review sessions, and four hours of laboratory work per week. Students who have taken Chemistry 1109 \{109\} may not take Chemistry 1102 \{102\} for credit.
Prerequisite: Chemistry $1101\{101\}$ or permission of the instructor.
1105 \{105\} a - MCSR, INS. Perspectives in Environmental Science. Every spring. Spring 2014. David R. Griffith and John Lichter.

Functioning of the earth system is defined by the complex and fascinating interaction of processes within and between four principal spheres: land, air, water, and life. Leverages key

## Courses of Instruation

principles of environmental chemistry and ecology to unravel the intricate connectedness of natural phenomena and ecosystem function. Fundamental biological and chemical concepts are used to understand the science behind the environmental dilemmas facing societies as a consequence of human activities. Laboratory sessions consist of local field trips, laboratory experiments, group research, case study exercises, and discussions of current and classic scientific literature. (Same as Biology 1158 \{158\} and Environmental Studies 2201 \{201\}.)

Prerequisite: One course numbered $1100\{100\}$ or higher in biology, chemistry, earth and oceanographic science, or physics.

1109 \{109\} a - MCSR, INS. General Chemistry. Every fall and spring. Fall 2013. Soren N. Eustis and David R. Griffith. Spring 2014. The Department.

A one-semester introductory chemistry course. Introduction to models of atomic structure, chemical bonding, and intermolecular forces; characterization of chemical systems at equilibrium and spontaneous processes; the rates of chemical reactions; and special topics. Lectures, review sessions, and four hours of laboratory work per week. Students who have taken Chemistry 1102 \{102\} may not take Chemistry $1109\{109\}$ for credit. To ensure proper placement, students must take the chemistry placement examination and must be recommended for placement in Chemistry 1109 \{109\}.

2050 \{205\} a - INS. Environmental Chemistry. Spring 2014. David R. Griffith.
Focuses on two key processes that influence human and wildlife exposure to potentially harmful substances-chemical speciation and transformation. Equilibrium principles as applied to acid-base, complexation, precipitation, and dissolution reactions are used to explore organic and inorganic compound speciation in natural and polluted waters; quantitative approaches are emphasized. Weekly laboratory sections are concerned with the detection and quantification of organic and inorganic compounds in air, water, and soils/sediments. (Same as Earth and Oceanographic Science 2325 \{206\} and Environmental Studies 2255 \{211\}.)
Prerequisite: Chemistry $1109\{109\}$, placement in chemistry at the 2000 level, or a course numbered 2000-2969 \{200-289\} in chemistry.

2100 \{210\} a - MCSR, INS. Chemical Analysis. Every fall. Elizabeth Stemmler.
Methods of separating and quantifying inorganic and organic compounds using volumetric, spectrophotometric, electrometric, and chromatographic techniques are covered. Chemical equilibria and the statistical analysis of data are addressed. Lectures and four hours of laboratory work per week.

Prerequisite: Chemistry $1102\{102\}$ or $1109\{109\}$, placement in chemistry at the 2000 level, or any course numbered 2000-2969 \{200-289\} in chemistry.
$2250\{225\}$ a. Organic Chemistry I. Every fall. Richard D. Broene, Michael P. Danahy, and Yi Jin Gorske.

Introduction to the chemistry of the compounds of carbon. Describes bonding, conformations, and stereochemistry of small organic molecules. Reactions of hydrocarbons, alkyl halides, and alcohols are discussed. Kinetic and thermodynamic data are used to formulate reaction mechanisms. Lectures, review sessions, and four hours of laboratory work per week.

Prerequisite: Chemistry $1102\{102\}$ or $1109\{109\}$, placement in chemistry at the 2000 level, or any course numbered $2000-2969\{200-289\}$ in chemistry.

2260 \{226\} a. Organic Chemistry II. Every spring. The Department.
Continuation of the study of the compounds of carbon. Highlights the reactions of aromatic, carbonyl-containing, and amine functional groups. Mechanistic reasoning provides a basis for understanding these reactions. Skills for designing logical synthetic approaches to complex organic molecules are developed. Chemistry $2250\{225\}$ and $2260\{226\}$ cover the material of the usual course in organic chemistry and form a foundation for further work in organic chemistry and biochemistry. Lectures, review sessions, and four hours of laboratory work per week.

Prerequisite: Chemistry $2250\{225\}$.
$2310\{231\}$ a. Fundamentals of Biochemistry. Fall 2014. Danielle H. Dube.
Focuses on the fundamentals of biochemistry. Topics include the influence of water on biomolecules; how structure dictates function; properties of the major classes of biomolecules (proteins, nucleic acids, carbohydrates, and lipids); enzyme mechanisms, kinetics, and regulation; metabolic transformations; energetics and metabolic control. Emphasis will be on how the physical and chemical properties of the universe impact living systems. This course does NOT satisfy a requirement for the biochemistry major and it is not open to students who have credit for Chemistry $2320\{232\}$. Students who intend to enroll in Chemistry $2320\{232\}$ should not register for Chemistry $2310\{231\}$.
Prerequisite: Chemistry $2260\{226\}$.
$2320\{232\}$ a - MCSR. Biochemistry. Every spring. Danielle H. Dube.
Focuses on the chemistry of living organisms. Topics include structure, conformation, and properties of the major classes of biomolecules (proteins, nucleic acids, carbohydrates, and lipids); enzyme mechanisms, kinetics, and regulation; metabolic transformations; energetics and metabolic control. Lectures and four hours of laboratory work per week. This course satisfies a requirement for the biochemistry major; it is not open to students who have credit for Chemistry $2310\{231\}$.

Prerequisite: Chemistry $2260\{226\}$.
$2400\{240\}$ a - MCSR, INS. Inorganic Chemistry. Every spring. Jeffrey K. Nagle.
An introduction to the chemistry of the elements with a focus on chemical bonding, periodic properties, and coordination compounds. Topics in solid state, bioinorganic, and environmental inorganic chemistry also are included. Provides a foundation for further work in chemistry and biochemistry. Lectures and four hours of laboratory work per week.

Prerequisite: Chemistry 1102 \{102\} or 1109 \{109\}, or any course numbered 2000-2969 \{200-289\} in chemistry.
$2510\{251\}$ a - MCSR, INS. Chemical Thermodynamics and Kinetics. Every fall. Daniel M. Steffenson.

Thermodynamics and its application to chemical changes and equilibria that occur in the gaseous, solid, and liquid states. The behavior of systems at equilibrium and chemical kinetics are related to molecular properties by means of statistical mechanics and the laws of thermodynamics. Lectures and four hours of laboratory work per week. Mathematics 1800 $\{181\}$ is recommended.

Prerequisite: Chemistry $1102\{102\}$ or 1109 \{109\}, or any course numbered 2000-2969 $\{200-289\}$ in chemistry; Mathematics $1700\{171\}$ or higher; and Physics $1140\{104\}$; or permission of the instructor.
$2520\{252\}$ a - MCSR, INS. Quantum Chemistry and Spectroscopy. Every spring. Soren N. Eustis.

Development and principles of quantum chemistry with applications to atomic structure, chemical bonding, chemical reactivity, and molecular spectroscopy. Lectures and four hours of laboratory work per week. Mathematics $1800\{181\}$ is recommended. Note: Chemistry 2510 $\{251\}$ is not a prerequisite for Chemistry $2520\{252\}$.

Prerequisite: Chemistry $1102\{102\}$ or $1109\{109\}$, or any course numbered 2000-2969 \{200-289\} in chemistry; Mathematics $1700\{171\}$ or higher; and Physics $1140\{104\}$; or permission of the instructor.
2970-2973 \{291-294\} a. Intermediate Independent Study in Chemistry. The Department.
Laboratory or literature-based investigation of a topic in chemistry. Topics are determined by the student and a supervising faculty member. Designed for students who have not completed at least four of the courses numbered 2000-2969 \{299-289\} required for the chemistry major.

2999 \{299\} a. Intermediate Collaborative Study in Chemistry. The Department.
3040 \{304\} a. Advanced Environmental Chemistry. Fall 2013. David R. Griffith.
Every year, 300 million tons of synthetic organic chemicals enter natural waters. Examines the fate of organic contaminants in aquatic environments. Uses chemical structures and properties to predict contaminant partitioning, biodegradation, and transport, and to evaluate the implications for human health and aquatic ecosystems. Case studies on endocrine disrupting chemicals, oil spills, and pharmaceuticals allow critical examination of inherent tensions between compound-specific chemical analyses and toxicity bioassays, between studies of single-compounds and complex mixtures, and between empirical and predictive approaches. (Same as Environmental Studies 3903 \{303\}.)

Prerequisite: Chemistry $2250\{225\}$.
[3050 \{305\} a. Environmental Fate of Organic Chemicals. (Same as Environmental Studies 3905 \{305\}.)]
[3060 \{306\} a. Transformation of Organic Chemicals in the Environment. (Same as Environmental Studies 3906 \{306\}.)]
$3100\{310\}$ a. Instrumental Analysis. Spring 2014. Elizabeth A. Stemmler.
Theoretical and practical aspects of instrumental techniques, including nuclear magnetic resonance spectroscopy, infrared spectroscopy, Raman spectroscopy, and mass spectrometry are covered, in conjunction with advanced chromatographic methods. Applications of instrumental techniques to the analysis of biological and environmental samples are covered. Lectures and two hours of laboratory work per week.

Prerequisite: Chemistry $2100\{210\}$ or permission of the instructor.
3200 \{320\} a. Advanced Organic Chemistry: Organometallic Chemistry. Fall 2013. Richard D. Broene.

In-depth study of compounds containing metal-carbon bonds and their reactions, with emphasis on synthesis and spectroscopy. A mechanistic approach is used to discover how these species act as catalysts or intermediates in synthetic organic reactions. Special techniques for handling these often sensitive molecules are introduced.

Prerequisite: Chemistry $2260\{226\}$ and $2400\{240\}$.
[3250 \{325\} a. Structure Determination in Organic Chemistry.]
3270 \{327\} a. Biomimetic and Supramolecular Chemistry. Fall 2014 or Spring 2015. Benjamin C. Gorske.

A guided exploration of the primary scientific literature concerning weak covalent and noncovalent interactions that collectively determine the three-dimensional structures of biomimetic and foldameric molecules and that govern the aggregation of molecules into discrete multi-molecular assemblies. Surveys practical applications in biochemical investigation, catalysis, and medicine, as well as in the young but rapidly expanding sciences of molecular and nanostructural engineering.

Prerequisite: Chemistry $2260\{226\}$.
3310 \{331\} a. Chemical Biology. Spring 2014. Danielle H. Dube.
The power of organic synthesis has had a tremendous impact on our understanding of biological systems. Examines case studies in which synthetically derived small molecules have been used as tools to tease out answers to questions of biological significance. Topics include synthetic strategies that have been used to make derivatives of the major classes of biomolecules (nucleic acids, proteins, carbohydrates, and lipids) and the experimental breakthroughs these molecules have enabled (e.g., polymerase-chain reaction, DNA sequencing, microarray technology). Emphasis on current literature, experimental design, and critical review of manuscripts.

Prerequisite: Chemistry $2320\{232\}$.
[3400 \{340\} a. Advanced Inorganic Chemistry.]
4000-4003 \{401-404\} a. Advanced Independent Study in Chemistry. The Department.
Advanced version of Chemistry 2970-2973 \{291-294\}. Students are expected to demonstrate a higher level of ownership of their research problem and to have completed at least four of the intermediate courses (numbered 2000-2969 \{200-289\}) required for the major.
4029 \{405\} a. Advanced Collaborative Study in Chemistry. The Department.
4050-4051 a. Honors Project in Chemistry. The Department.

## Classics

Barbara Weiden Boyd, Department Chair<br>Tammis L. Donovan, Department Coordinator<br>Professor: Barbara Weiden Boyd<br>Associate Professors: James A. Higginbotham, Jennifer Clarke Kosak<br>Assistant Professor: Robert B. Sobak<br>Lecturer: Michael Nerdahl

The Department of Classics offers three major programs: one with a focus on language and literature (Classics), one with a focus on classical archaeology (Classical Archaeology), and one that looks at the ancient world from multiple perspectives (Classical Studies). Students pursuing these majors are encouraged to study not only the languages and literatures but also the physical monuments of Greece and Rome. This approach is reflected in the requirements for the three major programs: for all, requirements in Greek and/or Latin and in classical culture must be fulfilled. Courses that will count toward the programs offered by the department must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C - or better in these courses.

## Classics

The classics program is arranged to accommodate both those students who have studied no classical languages and those who have had extensive training in Latin and Greek. The objective of Greek and Latin courses is to study the ancient languages and literatures in the original. By their very nature, these courses involve students in the politics, history, and philosophies of antiquity. Advanced language courses focus on the analysis of textual material and on literary criticism.

## Requirements for the Major in Classics

The major in Classics consists of ten courses:

- at least six of the ten courses chosen from offerings in Greek and Latin, including at least two courses in Greek or Latin at the $3300\{300\}$ level
- either Archaeology 1101 \{101\} (same as Art History $2090\{209\}$ ) or $1102\{1102\}$ (same as Art History 2100 \{210\})
- either Classics 1101 \{101\} or 1102 \{1102\}
- either Classics 2211 \{211\} (same as History $2001\{201\}$ ) or $2212\{212\}$ (same as History 2002 \{202\})
- a research seminar taken in the junior or senior year
- at least one course at the advanced level (numbered 3300-3999 \{300-399\}) taken during the senior year.
Students concentrating in one of the languages are encouraged to take at least two courses in the other. As a capstone to this major, a research seminar taken in the junior or senior year is required; a research seminar is one in which a substantial research project is undertaken and successfully completed.


## Requirements for the Major in Classical Studies

The Classical Studies major provides a useful foundation for students who seek a multidisciplinary view of the ancient world. The major combines coursework in an ancient language (Greek or Latin) with courses that explore the culture, history, and traditions of the ancient Mediterranean.

The major in Classical Studies consists of ten courses:

- a minimum of three courses in a single ancient language (Greek or Latin)
- at least two $1100\{100\}$ level courses, to be selected from Classics $1101\{101\}$, Classics 1102 \{102\}, Archaeology 1101 \{101\}, and Archaeology 1102 \{102\}
- at least three $2200\{200\}$ level courses, to be selected from Classics $2211\{211\}$ (same as History $2001\{201\}$ ), $2212\{212\}$ (same as History $2002\{202\}$ ), and all other $2200\{200\}$ level courses in classics and classical archaeology
- of the five courses required at the $1100\{100\}$ and $2200\{200\}$ levels, at least one should be chosen from offerings in classical archaeology
- of the five courses required at the $1100\{100\}$ and $2200\{200\}$ levels, one may be selected from appropriate offerings outside the department, with classics department approval
- at least two courses in the classics department at the advanced level (numbered 3300-3999 \{300-399\})
- a research seminar taken in the junior or senior year

As a capstone to this major, a research seminar taken in the junior or senior year is required; a research seminar is one in which a substantial research project is undertaken and successfully completed.

## Requirements for the Major in Classical Archaeology

The Classical Archaeology major pays special attention to the physical remains of classical antiquity. Students studying classical archaeology should develop an understanding of how archaeological evidence can contribute to our knowledge of the past, and of how archaeological study interacts with such related disciplines as philology, history, and art history. In particular, they should acquire an appreciation for the unique balance of written and physical sources that makes classical archaeology a central part of classical studies.

The major in Classical Archaeology consists of ten courses:

- at least five of the ten courses chosen from offerings in archaeology, including Archaeology $1101\{101\}$ (same as Art History $2090\{209\}$ ), $1102\{102\}$ (same as Art History $2010\{210\}$ ), and at least one archaeology course at the advanced level (numbered 3300-3999 \{300-399\})
- at least four semesters of Latin or three semesters of Greek
- a research seminar taken in the junior or senior year

Students majoring in Classical Archaeology are also encouraged to take at least one course from the department's offerings in ancient history. As a capstone to this major, a research seminar taken in the junior or senior year is required; a research seminar is one in which a substantial research project is undertaken and successfully completed.

## Interdisciplinary Major

The department participates in an interdisciplinary program in archaeology and art history. See page 216.

## Requirements for the Minor

Students may choose a minor in one of five areas:

1. Greek: Five courses in the department, including at least four in the Greek language;
2. Latin: Five courses in the department, including at least four in the Latin language;
3. Classics: Five courses in the department, including at least four in the classical languages; of these four, one should be either Greek $2204\{204\}$ or a Latin course at the advanced level (numbered 3300-3969 \{300-399\});
4. Archaeology: Six courses in the department, including either Archaeology 1101 \{101\} (same as Art History $2090\{209\}$ ) or $1102\{102\}$ (same as Art History $2100\{210\}$ ), one archaeology course at the advanced level (numbered 3300-3969 \{300-399\}), and two other archaeology courses;
5. Classical Studies (Greek or Roman): Six courses, including:
a. -for the Greek studies concentration: two courses in the Greek language; Archaeology 1102 $\{101\}$ (same as Art History $2090\{209\}$ ); one of the following: Classics $1011\{11\}$ (or any other appropriate first-year seminar), Classics $1101\{101\}, 1102\{102\}$, or $2211\{211\}$ (same as History $2001\{201\}$ ); Government $2200\{240\}$; or Philosophy $2111\{111\}$; and two of the following: any advanced archaeology course (numbered 3300-3969 \{300-399\}) focusing primarily on Greek material; Classics 2970-2973 \{291-294\} (Independent Study) or any intermediate or advanced Greek or classics course (numbered 2000-2969 \{200-289\} or 3300-3999 \{300-399\}) focusing primarily on Greek material.
b. -for the Roman studies concentration: two courses in the Latin language; Archaeology 1102 $\{102\}$ (same as Art History $2100\{210\}$ ); one of the following: Classics 1018 \{18\} (or any other appropriate first-year seminar), Classics $1101\{101\}, 1102\{102\}$, or $2212\{212\}$ (same as History $2002\{202\}$ ); or Government $2200\{240\}$; or Philosophy $2111\{111\}$; and two of the following: Archaeology $2202\{202\}$ or any archaeology course numbered 3000-3969 \{300-399\} focusing primarily on Roman material; Classics 2970-2973 \{291-294\} (Independent Study) or any intermediate or advanced Latin or classics course (numbered 2000-2969 \{200-289\} or 3300-3999 \{300-399\}) focusing primarily on Roman material.

Other courses in the Bowdoin curriculum may be applied to this minor if approved by the classics department.

## Classics and Archaeology at Bowdoin and Abroad

Archaeology classes regularly use the outstanding collection of ancient art in the Bowdoin College Museum of Art. Of special note are the exceptionally fine holdings in Greek painted pottery and the very full and continuous survey of Greek and Roman coins. In addition, there are numerous opportunities for study or work abroad. Bowdoin is a participating member of the Intercollegiate Center for Classical Studies in Rome, where students majoring in classics and classical archaeology can study in the junior year. It is also possible to receive course credit for field experience on excavations. Interested students should consult members of the department for further information.

Students contemplating graduate study in classics or classical archaeology are advised to begin the study of at least one modern language in college, as most graduate programs require competence in French and German as well as in Latin and Greek.

## Archaeology

Archaeology $1101\{101\}$ and $1102\{102\}$ are offered in alternate years.
1101 \{101\} c. Introduction to Greek Art and Archaeology. Fall 2013. James A. Higginbotham.

Introduces the techniques and methods of classical archaeology as revealed through an examination of Greek material culture. Emphasis upon the major monuments and artifacts of the Greek world from prehistory to the Hellenistic age. Architecture, sculpture, fresco painting, and other "minor arts" are examined at such sites as Knossos, Mycenae, Athens, Delphi, and Olympia. Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Greek world. (Same as Art History 2090 \{209\}.)

1102 \{102\} c. Introduction to Roman Archaeology. Fall 2014. James A. Higginbotham.
Surveys the material culture of Roman society, from Italy's prehistory and the origins of the Roman state through its development into a cosmopolitan empire, and concludes with the fundamental reorganization during the late third and early fourth centuries of our era. Lectures explore ancient sites such as Rome, Pompeii, Athens, Ephesus, and others around the Mediterranean. Emphasis upon the major monuments and artifacts of the Roman era: architecture, sculpture, fresco painting, and other "minor arts." Considers the nature of this archaeological evidence and the relationship of classical archaeology to other disciplines such as art history, history, and classics. Assigned reading supplements illustrated presentations of the major archaeological finds of the Roman world. (Same as Art History $2100\{210\}$.)

2204 c - ESD, IP. Buried by Vesuvius: The Archaeology of Roman Daily Life. Spring 2014. James A. Higginbotham.

Destroyed by the eruption of Vesuvius in AD 79, the archaeological remains of Pompeii, Herculaneum, and the neighboring sites around the Bay of Naples are unparalleled in their range and completeness. The study of this material record reveals a great deal about the domestic, economic, religious, social, and political life in ancient Italy. Examines archaeological, literary, and documentary material ranging from architecture and sculpture to wall painting, graffiti, and the floral remains of ancient gardens, but focuses on interpreting the archaeological record for insight into the everyday life of the Romans. In addition, explores the methods and techniques employed by archaeologists since the sites were "rediscovered" in the sixteenth century. Archaeological materials are introduced through illustrated presentations, supplementary texts, and sessions in the Bowdoin College Museum of Art.

## $2207\{207\}$ c - IP. Who Owns the Past? The Roles of Museums in Preserving and Presenting Culture. Fall 2013. Susan A. Kaplan.

Examines the storied place of museums in the acquisition, preservation, and display of cultural heritage. The past practices of museums are studied with an eye to how they inform present policies. Aims to examine museums' responses when confronting national and ethnic claims to items in museums' permanent collections; the ethical choices involved in deciding
what should be exhibited; the impact of politics, conflicts, and war on museum practices; and the alliances between museums, archaeologists, art historians, and anthropologists. Students will benefit from conversations with a number of Bowdoin faculty and staff, as well as a series of guest speakers from other organizations. Selected reading and class discussion are augmented by visits to the college's two museums and other local museums. (Same as Anthropology 2105 \{205\}.)

Prerequisite: One course in anthropology, archaeology, art history, or sociology, numbered 2000-2969 \{200-289\} or permission of the instructor.

At least one advanced archaeology course (numbered 3300-3999 \{300-399\}) is offered each year. Topics and/or periods recently taught on this level include the Greek Bronze Age, Etruscan art and archaeology, Greek and Roman numismatics, and Pompeii and the cities of Vesuvius. Advanced courses currently scheduled are:

## [3309 \{309\} c. Before Homer: Mycenaean Greek Society.]

3311 c. Portraits from Antiquity. Spring 2014. James A. Higginbotham.
For ancient cultures the art of portraiture had important religious, political, and social functions. Portraits, whether of gods, rulers, or common folk, were uniquely suited to communicate a variety of messages in a form easily recognizable to the intended audience. The success of the genre is clear from its widespread use and from the ways that it incorporated the accumulated traditions of ancient Mediterranean history. From profiles carved in relief and painted on vases to figures molded in terracotta and portraits sculpted in the round, explores a range of art representing Egyptian, Assyrian, Cypriot, Greek, and Roman cultures. Using artifacts housed in the collections of the Bowdoin College Museum of Art, examines the traditions, styles, and techniques that inform the portrayals of individuals in the ancient world, and what they teach about the societies that produced them.

Prerequisites: One of the following: Archaeology 1101 \{101\} (same as Art History 2090 $\{209\}$ ), $1102\{102\}$ (same as Art History $2100\{210\}$ ), Art History $1100\{100\}$, Visual Arts $1101\{150\}, 1301\{160\}, 1401\{180\}, 1601\{195\}$, or permission of instructor.

## Classics

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1011 \{11\} c. Shame, Honor, and Responsibility. Fall 2013. Jennifer Clarke Kosak.
[1019 \{19\} c. Ancient Democracy and Its Critics.]

## Introductory, Intermediate, and Advanced Courses

Classics 1101 \{101\} and $1102\{102\}$ are offered in alternate years.
1101 \{101\} c - ESD, IP. Classical Mythology. Spring 2014. Michael Nerdahl.
Focuses on the mythology of the Greeks and the use of myth in classical literature. Other topics considered are recurrent patterns and motifs in Greek myths; a cross-cultural study of ancient creation myths; the relation of mythology to religion; women's roles in myth; and the application of modern anthropological, sociological, and psychological theories to
classical myth. Concludes with an examination of Ovid's use of classical mythology in the Metamorphoses.

1102 \{102\} c-ESD, IP. Introduction to Ancient Greek Culture. Spring 2015. The Department.

Introduces students to the study of the literature and culture of ancient Greece. Examines different Greek responses to issues such as religion and the role of gods in human existence, heroism, the natural world, the individual and society, and competition. Considers forms of Greek rationalism, the flourishing of various literary and artistic media, Greek experimentation with different political systems, and concepts of Hellenism and barbarism. Investigates not only what is known and not known about ancient Greece, but also the types of evidence and methodologies with which this knowledge is constructed. Evidence is drawn primarily from the works of authors such as Homer, Sappho, Herodotus, Aeschylus, Sophocles, Euripides, Thucydides, Aristophanes, Plato, and Hippocrates, but attention is also given to documentary and artistic sources. All readings are done in translation.

## 2211 \{211\} c - ESD. History of Ancient Greece: Bronze Age to the Death of Alexander.

 Fall 2013. Robert B. Sobak.Surveys the history of Greek-speaking peoples from the Bronze Age (ca. 3000-1100 BCE) to the death of Alexander the Great in 323 BCE. Traces the political, economic, social, religious, and cultural developments of the Greeks in the broader context of the Mediterranean world. Topics include the institution of the polis (city-state); hoplite warfare; Greek colonization; the origins of Greek "science," philosophy, and rhetoric; and fifth-century Athenian democracy and imperialism. Necessarily focuses on Athens and Sparta, but attention is also given to the variety of social and political structures found in different Greek communities. Special attention is given to examining and attempting to understand the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). A variety of sources-literary, epigraphical, archaeological—are presented, and students learn how to use them as historical documents. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 2001 \{201\}.)

2212 \{212\} c. Ancient Rome. Fall 2014. Robert B. Sobak.
Surveys the history of Rome from its beginnings to the fourth century AD. Considers the political, economic, religious, social, and cultural developments of the Romans in the context of Rome's growth from a small settlement in central Italy to the dominant power in the Mediterranean world. Special attention is given to such topics as urbanism, imperialism, the influence of Greek culture and law, and multiculturalism. Introduces different types of sources-literary, epigraphical, archaeological, etc.-for use as historical documents. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 2002 \{202\}.)
[2214 \{214\} c - IP. The Republic of Rome and the Evolution of Executive Power. (Same as History 2008 \{267\}.)]

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[2232 \{232\} c - ESD, VPA. Ancient Greek Theater.]
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2241 \{241\} c. The Transformations of Ovid. Spring 2014. Barbara Weiden Boyd.
"Transformation" is both a translation of the title of Ovid's greatest work, the Metamorphoses, the theme of which is mythical transformation, and a term that can be aptly applied as well to the life and work of Ovid, whose wildly successful social and literary career was radically
transformed in 8 AD by Augustus's decree of exile, from which Ovid was never to return. The work "transformation" also captures the essence of Ovid's literary afterlife, during which his work has taken on new incarnations in the creative responses of novelists, poets, dramatists, artists, and composers. Begins with an overview of Ovid's poetry; culminates in a careful reading and discussion of the formal elements and central themes of the Metamorphoses. Also examines Ovid's afterlife, with special attention paid to his intertextual presence in the works of Shakespeare, Franz Kafka, Joseph Brodsky, Ted Hughes, Cristoph Ransmayr, Antonio Tabucchi, David Malouf, and Mary Zimmerman. All readings in English.
[3309 \{309\} c - IP. Ancient Epic: Tradition, Authority, and Intertextuality.]
3310 \{310\} c - ESD. Imagining Rome. Fall 2013. Barbara Weiden Boyd.
The mythical fate-driven foundation of Rome and the city's subsequent self-fashioning as caput mundi ("capital of the world") have made the city an idea that transcends history, and that has for millennia drawn historians, poets, artists, and, most recently, filmmakers to attempt to capture Rome's essence. As a result, the city defined by its ruins is continually created anew; this synergy between the ruins of Rome-together with the mutability of empire that they represent—and the city's incessant rebirth through the lives of those who visit and inhabit it offers a model for understanding the changing reception of the classical past. Explores the cycle of ancient Rome's life and afterlife in the works of writers and filmmakers such as Livy, Virgil, Tacitus, Juvenal, Petrarch, Shakespeare, Keats, Goethe, Gibbon, Hawthorne, Freud, Moravia, Rossellini, Fellini, Bertolucci, and Moretti. All readings are in English. Research seminar.

Prerequisite: One of the following: Archaeology $1102\{102\}$, Classics $2212\{212\}$ or 2214 $\{214\}$; or Latin $2203\{203\}$ or higher which may be taken concurrently; or permission of the instructor.
[3312 \{312\} c. Ancient Greek Medicine.]

## Greek

1101 \{101\} c. Elementary Greek I. Spring 2014. Jennifer Clarke Kosak.
Introduces students to basic elements of ancient Greek grammar and syntax; emphasizes the development of reading proficiency and includes readings, both adapted and in the original, of various Greek authors. Focuses on Attic dialect.
$\mathbf{1 1 0 2}\{\mathbf{1 0 2 \}}$ c. Elementary Greek II. Fall 2013. Jennifer Clarke Kosak.
A continuation of Greek 1101 \{101\}; introduces students to more complex grammar and syntax, while emphasizing the development of reading proficiency. Includes readings, both adapted and in the original, of Greek authors such as Plato and Euripides. Focuses on Attic dialect.
$2203\{203\}$ c. Intermediate Greek for Reading. Every spring. Spring 2014. Robert B. Sobak.
A review of the essentials of Greek grammar and syntax and an introduction to the reading of Greek prose through the study of one of Plato's dialogues. Equivalent of Greek 1102 $\{102\}$ or two to three years of high school Greek is required.

2204 \{204\} c - IP. Homer. Fall 2013. Barbara Weiden Boyd.
An introduction to the poetry of Homer. Focuses both on reading and on interpreting Homeric epic.

At least one advanced Greek course is offered each year. The aim of each of these courses is to give students the opportunity for sustained reading and discussion of at least one major author or genre representative of classical Greek literature. Primary focus is on the texts, with serious attention given as well both to the historical context from which these works emerged and to contemporary discussions and debates concerning these works.

Department faculty generally attempt to schedule offerings in response to the needs and interests of concentrators. Topics and/or authors frequently taught on this level include Greek lyric and elegiac poetry; Homer's Odyssey; Greek drama (including the tragedies of Aeschylus, Sophocles, and Euripides, and the comedies of Aristophanes and Menander); Greek history (including Herodotus and Thucydides); Greek philosophy (including Plato and Aristotle); Greek rhetoric and oratory; and the literature of the Alexandrian era.

3302 \{302\} c. Lyric Poetry. Spring 2014. Robert B. Sobak.
Introduces students to three major types of early Greek poetry: Choral Lyric (Pindar and Bacchylides), Monodic Lyric (Sappho, Alcaeus, Simonides, and Anacreon), and Elegy (Archilochus, Tyrtaeus, Solon, Xenophanes, Simonides, and Theognis). Research Seminar.
[3303 \{303\} c. The Historians.]
[3305 \{305\} c. Tragedy.]

## Latin

$1101\{101\}$ c. Elementary Latin I. Every fall. Fall 2013. Michael Nerdahl.
A thorough presentation of the elements of Latin grammar. Emphasis is placed on achieving a reading proficiency.

1102 \{102\} c. Elementary Latin II. Every spring. Spring 2014. Michael Nerdahl.
A continuation of Latin 1101 \{101\}. During this term, readings are based on unaltered passages of classical Latin.
2203 \{203\} c. Intermediate Latin for Reading. Every fall. Fall 2013. Robert B. Sobak.
A review of the essentials of Latin grammar and syntax and an introduction to the reading of Latin prose and poetry. Materials to be read change from year to year, but always include a major prose work. Equivalent of Latin $1102\{102\}$ or two to three years of high school Latin is required.

2204 \{204\} c - IP. Studies in Latin Literature. Every spring. Spring 2014. Jennifer Clarke Kosak.

An introduction to different genres and themes in Latin literature. The subject matter and authors covered may change from year to year (e.g., selections from Virgil's Aeneid and Livy's History, or from Lucretius, Ovid, and Cicero), but attention is always given to the historical and literary context of the authors read. While the primary focus is on reading Latin texts, some readings from Latin literature in translation are also assigned. Equivalent of Latin 2203 \{203\} or three to four years of high school Latin is required.

One advanced Latin course is offered each semester. The aim of each of these courses is to give students the opportunity for sustained reading and discussion of at least one major author or genre representative of classical Latin literature. Primary focus is on the texts, with serious attention given as well both to the historical context from which these works emerged and to contemporary discussions and debates concerning these works.

Department faculty generally attempt to schedule offerings in response to the needs and interests of concentrators. Topics and/or authors frequently taught on this level include Roman history (including Sallust, Livy, and Tacitus); Ovid's Metamorphoses; Elegiac poetry; Cicero's oratory; Virgil's Aeneid or Eclogues and Georgics; Roman novel (including Petronius and Apuleius); satire; and comedy (including Plautus and Terence). The advanced courses currently scheduled are:
[3301 \{301\} c - IP. Livy.]
3304 \{304\} c. Cicero. Fall 2013. Michael Nerdahl.
Marcus Tullius Cicero (103-43 BCE) lived through a period of great social, political, and cultural upheaval, and through his prolific writings left us a detailed if subjective record of what he did, saw, and experienced. He did so, furthermore, with style-that is, he wrote in a Latin style of such remarkable purity and elegance that he has set the standard not only for scholars through the centuries who have studied Latin style but also for many writers of prose of all sorts-rhetorical, philosophical, historical—throughout the course of Western intellectual history. Reading selections from Cicero's corpus can give us some sense of the world in which he lived and the Roman identity he helped to shape, and foster an appreciation for Latin prose as Cicero created it (as well as some new techniques for reading it), through translation, composition, and oratorical performance.

3305 \{305\} c. Virgil. The Aeneid. Spring 2014. Barbara Weiden Boyd.
Born in 70 BCE, the poet Virgil (Publius Vergilius Maro) lived through the traumatic decades that saw the end of the Roman republic and witnessed firsthand the political rebirth of Rome managed by Octavian after the battle of Actium. Virgil's Aeneid, written in the first decade of the "restored Republic," reflects both the historical turmoil of the time and its outcome; at the same time, it stands as the greatest artistic achievement of the period (and, arguably, of all Latin literature). Three books of the Aeneid will be read in Latin, and the remainder of the poem will be read in English, with special attention given to political and cultural approaches to the epic and its reception. Research seminar.
[3307 \{307\} c - IP. Young Virgil.]
[3312 \{312\} c - IP. Roman Tragedy.]
[3315 \{315\} c - IP. The Swerve: Lucretius's De rerum natura.]

## Independent Study in Archaeology, Classics, Greek, and Latin

2970-2973 \{291-294\} c. Intermediate Independent Study. The Department.
2999 \{299\} c. Intermediate Collaborative Study. The Department.
4000-4003 \{401-404\} c. Advanced Independent Study. The Department.
4029 \{405\} c. Advanced Collaborative Study. The Department.
4050-4051 c. Honors Project. The Department.

# Computer Scienge 

Eric L. Chown, Department Chair
Suzanne M. Theberge, Senior Department Coordinator

Professors: Eric L. Chown, Allen B. Tucker<br>Associate Professors: Stephen M. Majercik, Laura I. Toma<br>Assistant Professor: Daniela A. S. de Oliveira $\dagger$<br>Visiting Faculty: Mohammad T. Irfan

The major in computer science is designed to introduce students to the two fundamental questions of the discipline: What computational tasks is a computer capable of doing? How can we design, analyze, and implement efficient algorithms to solve large, complex problems? Thus, the discipline requires thinking in both abstract and concrete terms, and the major provides an opportunity for students to develop the analytical skills necessary for efficient algorithm design as well as the practical skills necessary for the implementation of those algorithms. The range of problems that can be attacked using the techniques of computer science spans many disciplines, and computer scientists often become proficient in other areas. Examples of areas that students can study in the department include network security, cyber-attack recovery, geographic information systems, computing with massive data sets, cognitive science, robotics, swarm intelligence, and artificial intelligence and the arts. The computer science major can serve as preparation for graduate study in computer science as well as careers in teaching, research, and industry (such as financial services and Internetrelated businesses).

## Requirements for the Major in Computer Science

The major consists of ten computer science courses: Introduction to Computer Science (Computer Science 1101 \{101\}); Data Structures (Computer Science 2101 \{210\}), Algorithms (Computer Science $2200\{231\}$ ), and seven elective courses at the intermediate level (numbered 2000-2969 \{200-289\}) or above that satisfy the following requirements: at least one course in each of the areas Algorithms and Theory, Artificial Intelligence, and Systems; at least one course designated a Projects course; and at least four advanced-level courses (numbered 3000-3999 \{300-399\}). Independent studies (except those enrolled in as part of an honors project) may be used to satisfy one of these elective requirements. Prospective majors should take Computer Science $2010\{210\}$ as soon as possible after Computer Science $1101\{101\}$, since this course is a prerequisite for many other computer science courses. Students, particularly those who intend to do graduate work in computer science or a related field, are encouraged to collaborate with faculty on research projects through independent studies, honors projects, and fellowship-funded summer research. These students are also encouraged to take courses in the mathematics department; courses of particular interest are Mathematics $2000\{201\}, 2020\{200\}, 2108\{204\}$ (same as Biology $1174\{174\}$ ), $2109\{229\}$, $2206\{225\}, 2208\{224\}, 2209\{244\}, 2302\{232\}, 2502\{252\}, 2601\{258\}$, and $2606\{265\}$.

Computer science shares interests with a number of other disciplines, e.g., probability and statistics in mathematics, logic in philosophy, and cognition in psychology. In addition, computers are increasingly being used as a tool in other disciplines, including the social sciences and the humanities as well as the natural sciences. The department encourages students to explore these relationships; courses that may be of particular interest include the
mathematics courses listed above; Music 2551 \{218\}; Philosophy $2410\{210\}, 2223\{223\}$, and 2233 \{233\}; and Psychology 2040 and $2740\{216$ and 270$\}$.

## Requirements for the Minor in Computer Science

The minor consists of five courses: Computer Science $1101\{101\}, 2101\{210\}$, and any three additional computer science courses at the intermediate level (numbered 2000-2969 \{200-289\}) or above.

## Interdisciplinary Major

The department participates in an interdisciplinary major program in computer science and mathematics. See page 217.

## Fulfilling Requirements

Courses that satisfy the Algorithms and Theory requirement: Computer Science 2210 \{289\}, $3225\{350\}, 3235\{345\}$.
Courses that satisfy the Artificial Intelligence requirement: Computer Science $2400\{270\}$, $3400\{355\}, 3415\{320\}, 3425\{375\}$.

Courses that satisfy the Systems requirement: Computer Science $2310\{240\}, 2325\{250\}$, $3005\{280\}, 3300\{370\}, 3310\{360\}$.

Courses that satisfy the Projects requirement: Computer Science $2505\{281\}, 3005\{280\}$, $3235\{345\}, 3415\{320\}, 3425\{375\}$.

To fulfill the major or minor requirements, or to serve as a prerequisite for another computer science course, a grade of C- or better must be earned in a course. Courses taken to fulfill major or minor requirements must be taken for regular letter grades (not Credit/D/Fail).

## Introductory, Intermediate, and Advanced Courses

1101 \{101\} a - MCSR. Introduction to Computer Science. Every semester. Fall 2013.
Mohammad Irfan and Stephen Majercik.
What is computer science, what are its applications in other disciplines, and what is its impact in society? A step-by-step introduction to the art of problem solving using the computer and the Java language. Provides a broad introduction to computer science and programming through real-life applications. Weekly labs provide experiments with the concepts presented in class. Assumes no prior knowledge of computers or programming.

2101 \{210\} a - MCSR. Data Structures. Every semester. Eric Chown.
Solving complex algorithmic problems requires the use of appropriate data structures such as stacks, priority queues, search trees, dictionaries, hash tables, and graphs. It also requires the ability to measure the efficiency of operations such as sorting and searching in order to make effective choices among alternative solutions. Offers a study of data structures, their efficiency, and their use in solving computational problems. Laboratory exercises provide an opportunity to design and implement these structures. Students interested in taking Computer Science $2101\{210\}$ are required to pass the computer science placement examination before class starts.

Prerequisite: Computer Science $1101\{101\}$, placement above Computer Science $1101\{101\}$, or permission of the instructor.
$2200\{231\}$ a - MCSR. Algorithms. Fall 2013. Laura Toma.
An introductory course on the design and analysis of algorithms. Introduces a number of basic algorithms for a variety of problems such as searching, sorting, selection, and graph problems (e.g., spanning trees and shortest paths). Discusses analysis techniques, such as recurrences and amortization, as well as algorithm design paradigms such as divide-andconquer, dynamic programming, and greedy algorithms.
[2210 \{289\} a - MCSR. Theory of Computation.]
[2300 \{220\} a. Computer Organization.]
[2310 \{240\} a - MCSR. Operating Systems.]
2400 \{270\} a - MCSR. Artificial Intelligence. Fall 2013. Stephen Majercik.
Explores the principles and techniques involved in programming computers to do tasks that would require intelligence if people did them. State-space and heuristic search techniques, logic and other knowledge representations, reinforcement learning, neural networks, and other approaches are applied to a variety of problems with an emphasis on agent-based approaches.
Prerequisite: Computer Science $2101\{210\}$ or permission of the instructor.
2505 \{281\} a. Mobile Computing. Spring 2014. Eric Chown.
As computer science enters the "post-PC" era, basic computing paradigms are shifting to take advantage of mobile platforms such as phones and tablets. Covers all aspects of programming for mobile devices including development environments, programming languages, the use of touch screens for input, and associated sensors such as accelerometers and GPS. Students engage in a series of introductory projects before taking on a large self-designed term project that highlights the differences between mobile applications and more traditional applications designed for the desktop.

Prerequisite: Computer Science $2101\{210\}$.
2970-2973 \{291-294\} a. Intermediate Independent Study in Computer Science. The Department.

2999 \{299\} a. Intermediate Collaborative Study in Computer Science. The Department. [ 3005 \{280\} a. Projects in Computer Science.]

3225 \{350\} a. GIS Algorithms and Data Structures. Fall 2013. Laura Toma.
Geographic information systems (GIS) handle geographical data such as boundaries of countries; course of rivers; height of mountains; and location of cities, roads, railways, and power lines. GIS can help determine the closest public hospital, find areas susceptible to flooding or erosion, track the position of a car on a map, or find the shortest route from one location to another. Because GIS deal with large datasets, making it important to process data efficiently, they provide a rich source of problems in computer science. Topics covered include data representation, triangulation, range searching, point location, map overlay, meshes and quadtrees, terrain simplification, and visualization.

Prerequisite: Computer Science $2101\{210\}$ and $2200\{231\}$, or permission of the instructor.
[3310 \{360\} a. Computer Security.]
3355 \{315\} a. Open Source Software Development. Fall 2013. Allen Tucker.
Studies the principles and practice of software development, with a particular emphasis on
humanitarian free and open source software (HFOSS), agile methods, team programming, and real-world applications. Agile methods include unit testing, team programming, using collaboration tools, code sharing, unit testing, refactoring. Requires students to learn about and master these methods by working in teams with real clients to complete real software projects; includes, consequently, a required community service component. Examples of past projects completed by Bowdoin computer science students can be found at http:// myopensoftware.org/content/new-projects-2012.

Prerequisite: Computer Science $2101\{210\}$, or permission of the instructor.
$3400\{355\}$ a. Cognitive Architecture. Fall 2015. Eric Chown.
Advances in computer science, psychology, and neuroscience have shown that humans process information in ways that are very different from those used by computers. Explores the architecture and mechanisms that the human brain uses to process information. In many cases, these mechanisms are contrasted with their counterparts in traditional computer design. A central focus is to discern when the human cognitive architecture works well, when it performs poorly, and why. Conceptually oriented, drawing ideas from computer science, psychology, and neuroscience. No programming experience necessary.

Prerequisite: One of the following: Computer Science 2101 \{210\}, Biology 2135 \{213\}, Psychology $2040\{216\}$ or $2740\{270\}$ or permission of the instructor.
[3415 \{320\} a. Robotics.]
3425 \{375\} a. Optimization and Uncertainty. Fall 2014. Stephen Majercik.
Optimization problems and the need to cope with uncertainty arise frequently in the real world. A numeric framework, rather than the symbolic one of traditional artificial intelligence, is useful for expressing such problems. In addition to providing a way of dealing with uncertainty, this approach sometimes permits performance guarantees for algorithms. Topics include constraint satisfaction, systematic and non-systematic search techniques, probabilistic inference and planning, and population-based optimization techniques (e.g., genetic algorithms and ant colony optimization).

Prerequisite: Computer Science $2101\{210\}$ or permission of the instructor.
$3440\{344\}$ a. Nature-Inspired Computation. Spring 2015. Stephen M. Majercik.
The size and complexity of real-world optimization problems can make it difficult to find optimal solutions in an acceptable amount of time. Researchers have turned to nature for inspiration in developing techniques that can find high-quality solutions in a reasonable amount of time; the resulting algorithms have been applied successfully to a wide range of optimization problems. Covers the most widely used algorithms, exploring their natural inspiration, their structure and effectiveness, and applications. Topics will be drawn from: genetic algorithms, particle swarm optimization, ant colony optimization, honeybee algorithms, immune system algorithms, and bacteria optimization algorithms. Requirements include labs, programming assignments, and a larger final project.
Prerequisite: Computer Science $2101\{210\}$ or permission of the instructor.
4000-4003 \{401-404\} a. Advanced Independent Study in Computer Science. The Department.
$4029\{405\}$ a. Advanced Collaborative Study in Computer Science. The Department.
4050-4051 a. Honors Project in Computer Science. The Department.

# Earth and Oqeanographic Sqience 

Collin S. Roesler, Department Chair<br>Marjorie L. Parker, Department Coordinator<br>Professor: Rachel J. Beane<br>Associate Professors: Philip Camill (Environmental Studies), Peter D. Lea, Collin S. Roesler<br>Assistant Professors: Emily M. Peterman, Michèle G. LaVigne<br>Laboratory Instructors: Cathryn Field, Joanne Urquhart

## Requirements for the Major in Earth and Oceanographic Science (EOS)

The major consists of ten courses. Majors may begin their study with any one of the introductory earth and oceanographic science courses: EOS $1105\{101\}, 1305\{104\}$ (same as Environmental Studies $1104\{104\}$ ), $1505\{102\}$ (same as Environmental Studies 1102 $\{102\}$ ), or EOS $1515\{105\}$ (same as Environmental Studies 1515 \{105\}). Majors are required to take EOS $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ), and any one of the following: Biology 1102 or 1109 \{102 or 109\}; Chemistry 1102 or $1109\{102$ or 109$\}$; Computer Science 1101 \{101\}; Mathematics $1200\{155\}, 1300\{165\}, 1800\{181\}$, or 2108 $\{204\}$; or Physics $1140\{104\}$. To establish breadth within the major, students must take one core course with laboratory (course numbers ending in 5) from each of the following three areas:

1. Solid Earth: EOS $2125\{241\}, 2145\{242\}, 2165\{262\}$, or $2215\{265\} ;$
2. Earth Surface Processes: EOS $2335\{220\}$ or $2345\{270\}$ (same as Environmental Studies 2270 $\{270\}$ ), or $2315\{277\}$ or $2355\{272\}$;
3. Oceans: $\operatorname{EOS} 2525\{252\}, 2575\{255\}, 2585\{282\}$ (same as Environmental Studies 2282 $\{282\}), 2605\{250\}$, or $2635\{267\}$ (same as Environmental Studies 2267 \{267\}).

In addition, majors are required to take at least one research experience course (EOS 3115 $\{315\}$ or $3515\{351\}$ ), and one senior seminar (EOS $3020\{302\}$ [same as Environmental Studies $3902\{302\}$ ] or $3520\{352\}$ ). The remaining elective courses may be selected from earth and oceanographic science courses at the intermediate or advanced levels (numbered 2000-2969 \{200-289\} or 3000-3999 \{300-399\}). One of these electives may include Biology 2319 \{219\} (same as Environmental Studies 2229 \{219\}), $2325\{225\}$ (same as Environmental Studies 2225 \{225\}), 2574 \{274\} (same as Environmental Studies 2274 $\{274\}$ ); Chemistry $3050\{305\}$ (same as Environmental Studies $3905\{305\}$ ), $3070\{350\}$ (same as Environmental Studies $3950\{350\}$ ); Computer Science 3225 \{350\}; Environmental Studies 2004 \{204\}; Physics $2250\{251\}, 2510\{262\}, 2810\{257\}$ (same as EOS 2810 $\{257\}$ and Environmental Studies $2253\{253\}$ ), $3810\{357\}$ (same as EOS $3050\{357\}$ and Environmental Studies $3957\{357\}$ ); or an approved off-campus study or summer field course.

Note that:
(a) only one course numbered 1100-1999 \{100-199\} in earth and oceanographic science may be counted toward the major requirements;
(b) students may opt to begin the major with EOS $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ) having previously taken Biology 1102 or $1109\{102$ or 109$\}$, or Chemistry 1102 or 1109 \{102 or 109\}. Such students may substitute an intermediate earth and oceanographic science laboratory course (numbered 2000-2969 \{200-289\}) or research
experience course (EOS $3115\{315\}$ or $3515\{351\}$ ) for the introductory EOS courses numbered 1100-1999 \{101-105\}.
(c) independent studies do not count toward the major requirements; and
(d) all courses counted toward the major must be completed with a C- or better.

Students planning postgraduate study in earth and oceanographic science should note that they might present a stronger application if they take additional courses in the department and in the contributing sciences: biology, chemistry, computer science, mathematics, and physics. It is strongly advised that students consult with faculty on the design of their major and discuss the options of research projects through independent studies, fellowship-funded summer research, and honors projects.

## Interdisciplinary Majors

The department does not explicitly participate in formal interdisciplinary programs. However, the departments of Earth and Oceanographic Science and Physics have identified major and minor pathways for students interested in majoring in earth and oceanographic science with an interest in physics (EOS major/physics minor) and students interested in majoring in physics with an earth and oceanographic science application (physics major/EOS minor). Students interested in an EOS major/physics minor with an interest in the solid earth discipline would be best served by selecting their optional physics courses from Physics $2130\{223\}$, $2150\{229\}, 2230\{240\}, 2250\{251\}, 2510\{262\}, 3000\{300\}, 3010\{301\}, 3020\{302\} ;$ those with an interest in the surface earth discipline should choose from Physics $2130\{223\}, 2220$ $\{235\}, 2230\{240\}, 2810\{257\}, 3010\{301\}, 3020\{302\}, 3810\{357\}$; those with an interest in the oceanography discipline should choose from Physics $2130\{223\}, 2150\{229\}, 2230\{240\}$, $2240\{250\}, 2810\{257\}, 3000\{300\}, 3010\{301\}, 3020\{302\}, 3120\{370\}, 3130\{320\}, 3810$ \{357\}.

## Requirements for the Minor in Earth and Oceanographic Science (EOS)

The minor consists of four courses in the department. Minors are required to take EOS 2005 $\{200\}$ (same as Environmental Studies $2221\{200\}$ ). No more than one introductory course numbered 1100-1999 \{101-105\} in earth and oceanographic science may be included. All courses counted toward the minor must be completed with a C- or better.

## Introductory, Intermediate, and Advanced Courses

1105 \{101\} a - INS. Investigating Earth. Every fall. Fall 2013. Emily Peterman.
Dynamic processes, such as earthquakes, sea-floor spreading, subduction and volcanoes, shape the earth on which we live. Explores these processes and the rocks and minerals they produce from the framework of plate tectonics during class and laboratory sections. Weekly field laboratories investigate rocks exposed along the Maine coast. During the course, students complete a research project on Maine geology.
$1305\{104\}$ a - MCSR, INS. Environmental Geology and Hydrology. Every spring. Spring 2014. Peter Lea.

An introduction to aspects of geology and hydrology that affect the environment and land use. Topics include lakes, watersheds and surface-water quality, groundwater contamination, coastal erosion, and landslides. Weekly labs and fieldwork examine local environmental problems affecting Maine's rivers, lakes, and coast. Students complete a community-based research project on Maine water quality. (Same as Environmental Studies 1104 \{104\}.)

1505 \{102\} a - INS. Oceanography. Every spring. Spring 2014. Collin Roesler. Spring 2015. Michèle LaVigne.

The fundamentals of geological, physical, chemical, and biological oceanography. Topics include tectonic evolution of the ocean basins; deep sea sedimentation as a record of ocean history; global ocean circulation, waves, and tides; chemical cycles; ocean ecosystems and productivity; and the oceans' role in climate change. Weekly labs and fieldwork demonstrate these principles in the setting of Casco Bay and the Gulf of Maine. Students complete a fieldbased research project on coastal oceanography. (Same as Environmental Studies 1102 \{102\}.)
2005 \{200\} a. Biogeochemistry: An Analysis of Global Change. Every fall. Fall 2013. Philip Camill.

Understanding global change requires knowing how the biosphere, geosphere, oceans, ice, and atmosphere interact. An introduction to earth system science, emphasizing the critical interplay between the physical and living worlds. Key processes include energy flow and material cycles, soil development, primary production and decomposition, microbial ecology and nutrient transformations, and the evolution of life on geochemical cycles in deep time. Terrestrial, wetland, lake, river, estuary, and marine systems are analyzed comparatively. Applied issues are emphasized as case studies, including energy efficiency of food production, acid rain impacts on forests and aquatic systems, forest clearcutting, wetland delineation, eutrophication of coastal estuaries, ocean fertilization, and global carbon sinks. Lectures and three hours of laboratory or fieldwork per week. (Same as Environmental Studies 2221 \{200\}.)
Prerequisite: One course numbered 1100-1999 \{101-105\} in earth and oceanographic science; or Biology $1102\{102\}$ or $1109\{109\}$; or Chemistry $1102\{102\}$ or $1109\{109\}$; or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.
$2020\{205\}$ a - INS. Earth, Ocean, and Society. Every spring. Spring 2014. Emily Peterman.
Explores the historical, current, and future demands of society on the natural resources of the earth and the ocean. Discusses the formation and extraction of salt, gold, diamonds, rare earth elements, coal, oil, natural gas, and renewable energies (e.g., tidal, geothermal, solar, wind). Examines how policies for these resources are written and revised to reflect changing societal values. Students complete a research project that explores the intersection of natural resources and society. (Same as Environmental Studies 2250 \{205\}.)

Prerequisite: One course numbered 1100-1999 \{101-105\} in earth and oceanographic science, or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.

2110 \{211\} a - INS. Volcanoes. Fall 2013. Rachel Beane.
Volcanoes make the news for their human impact, and they reveal much about the inner workings of Earth. Examination of volcanic eruptions, landforms, products, and hazards. Exploration of tectonic influence and magmatic origins of volcanoes. Investigation into the impact of volcanoes on humans, climate, and earth history.
Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ).

2125 \{241\} a - MCSR, INS. Field Studies in Structural Geology. Fall 2013. Rachel Beane.
Geologic structures yield evidence for the dynamic deformation of the earth's crust. Examines
deformation at scales that range from the plate-tectonic scale of the Appalachian mountains to the microscopic scale of individual minerals. A strong field component provides ample opportunity for describing and mapping faults, folds, and other structures exposed along the Maine coast. In-class exercises focus on problem-solving through the use of geologic maps, cross-sections, stereographic projections, strain analysis, and computer applications.

Prerequisite: One course numbered 1100-1999 \{101-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.
2145 \{242\} a - INS. The Plate Tectonics Revolution. Spring 2014. Emily Peterman.
Although only about forty years old, the theory of plate tectonics forever changed the way we view our earth, from static to dynamic. Plate tectonics provides a global framework to understand such varied phenomena as earthquakes, volcanoes, ocean basins, and mountain systems both on continents (e.g., the Himalaya, the Andes) and beneath the seas (e.g., the MidAtlantic Ridge, the East Pacific Rise). In-depth analysis of plate boundaries, the driving forces of plate tectonics, global plate reconstructions, and the predictive power of plate tectonics. Lectures and three hours of laboratory or fieldwork per week.

Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.
$2165\{262\}$ a - INS. Mountains to Trenches: Petrology and Process. Spring 2015. Emily Peterman.

Exploration of the processes by which igneous rocks solidify from magma (e.g., volcanoes) and metamorphic rocks form in response to pressure, temperature, and chemical changes (e.g., mountain building). Interactions between the petrologic processes and tectonics are examined through a focus on the continental crust, mid-ocean ridges, and subduction zones. Learning how to write effectively is emphasized throughout the course. Laboratory work focuses on field observations, microscopic examination of thin sections, and geochemical modeling.

Prerequisite: Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 \{200\}).
2325 \{206\} a - INS. Environmental Chemistry. Spring 2014. David R. Griffith.
Focuses on two key processes that influence human and wildlife exposure to potentially harmful substances-chemical speciation and transformation. Equilibrium principles as applied to acid-base, complexation, precipitation, and dissolution reactions are used to explore organic and inorganic compound speciation in natural and polluted waters; quantitative approaches are emphasized. Weekly laboratory sections are concerned with the detection and quantification of organic and inorganic compounds in air, water, and soils/sediments. (Same as Chemistry $2050\{205\}$ and Environmental Studies 2255 \{211\}.)

Prerequisite: Chemistry 1109 \{109\}, placement in chemistry at the 2000 level, or a course numbered 2000-2969 \{200-289\} in chemistry.

2335 \{220\} a - INS. Sedimentary Systems. Fall 2013. Peter Lea.
Investigates modern and ancient sedimentary systems, both continental and marine, with emphasis on the dynamics of sediment transport, interpretation of depositional environments from sedimentary structures and facies relationships, stratigraphic techniques for interpreting earth history, and tectonic and sea-level controls on large-scale depositional patterns. Weekend
trip to examine Devonian shoreline deposits in the Catskill Mountains in New York is required.

Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.
2345 \{270\} a. Landscapes and Global Change. Spring 2015. Peter Lea.
The Earth's surface is marked by the interactions of the atmosphere, water and ice, biota, tectonics, and underlying rock and soil. Even familiar landscapes beget questions on how they formed, how they might change, and how they relate to patterns at both larger and smaller scales. Examines Earth's landscapes and the processes that shape them, with particular emphasis on how future changes may both influence and be influenced by humans. Topics include specific land-shaping agents (rivers, glaciers, landslides, groundwater), as well as how these agents interact with one another and with changing climate, tectonics, and human activities. (Same as Environmental Studies 2270 \{270\}.)

Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.

2355 \{272\} a. Glaciers and Ice Ages. Spring 2014. Peter Lea.
Glaciers are both prolific sculptors of Earth's landscapes and integral elements in the global climate system. Examines current and former glacier distribution and movement, and the processes and products of glacial erosion and deposition. Explores methods for reconstructing ice-age environments and climate change in the geologic record of ice sheets and linked nonglacial systems. Includes field investigations of Maine's glaciated landscapes.

Prerequisite: One course numbered 1100 or higher in earth and oceanographic science. or Environmental Studies $1102\{102\}, 1104\{104\}$, or $1515\{105\}$.
2525 \{252\} a. Marine Biogeochemistry. Spring 2014. Michèle LaVigne.
Oceanic cycles of carbon, oxygen, and nutrients play a key role in linking global climate change, marine primary productivity, and ocean acidification. Fundamental concepts of marine biogeochemistry used to assess potential consequences of future climate scenarios on chemical cycling in the ocean. Past climate transitions evaluated as potential analogs for future change using select case studies of published paleoceanographic proxy records derived from corals, ice cores, and deep-sea sediments. Weekly laboratory sections and student research projects focus on creating and interpreting new geochemical paleoclimate records from marine archives and predicting future impacts of climate change and ocean acidification on marine calcifiers. (Same as Environmental Studies 2251 \{251\}.)
Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Environmental Studies 1102 \{102\}, 1104 \{104\}, or 1515 \{105\}; and Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 \{200\}).
$2530\{287\}$ a. Poles Apart: An Exploration of Earth's High Latitudes. Every other fall. Fall 2013. Collin Roesler.

The polar regions undergo extreme seasonal variations that dominate the environmental and ecological patterns. Despite being the coldest regions on the planet they are most sensitive to the recent warming trends induced by anthropogenic increases in atmospheric carbon dioxide. In turn the cryospheric and oceanographic responses to warming have complex feedbacks to
global climate. The tectonic evolution of modern polar geography, climate, glaciers and sea ice, ocean circulation and ocean biology of the Arctic and Antarctic regions are compared and contrasted. In addition to scientific readings (textbook chapters and journal articles), students will read an array of first-hand accounts of polar exploration from the turn of the twentieth century, such as Fridjof Nansen's Farthest North, from which many important scientific discoveries were made. (Same as Environmental Studies 2287 \{287\}.)

Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.

2540 a - INS. Equatorial Oceanography. Spring 2014. Michèle LaVigne.
The equatorial ocean is a region with virtually no seasonal variability, yet it undergoes the strongest interannual to decadal climate variations of any oceanographic province. This key region constitutes one of the most important yet highly variable natural sources of carbon dioxide $\left(\mathrm{CO}_{2}\right)$ to the atmosphere. Explores how circulation, upwelling, biological activity, biogeochemistry, and $\mathrm{CO}_{2}$ flux in this key region vary in response to rapid changes in climate. Particular emphasis on past, present, and future dynamics of the El Niño Southern Oscillation. In-class discussions are focused on the primary scientific literature.

Prerequisite: One earth and oceanographic science course numbered 1105-1515 \{101-105] or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 \{200 $)$.
2585 \{282\} a - MCSR, INS. Ocean and Climate. Fall 2016. Collin Roesler.
The ocean covers more than 70 percent of Earth's surface. It has a vast capacity to modulate variations in global heat and carbon dioxide, thereby regulating climate and ultimately life on Earth. Beginning with an investigation of paleoclimate records preserved in deep-sea sediment cores and in Antarctic and Greenland glacial ice cores, explores the patterns of natural climate variations with the goal of understanding historic climate change observations. Predictions of future polar glacial and sea ice, sea level, ocean temperatures, and ocean acidity investigated through readings and discussions of scientific literature. Weekly laboratory sessions devoted to field trips, laboratory experiments, and computer-based data analysis and modeling to provide hands-on experiences for understanding the time and space scales of processes governing oceans, climate, and ecosystems. Laboratory exercises form the basis for student research projects. Mathematics $1700\{171\}$ is recommended. (Same as Environmental Studies 2282 \{282\}.)

Prerequisite: Earth and Oceanographic Science 1505 \{102\} (same as Environmental Studies $1102\{102\}$ ) or $2005\{200\}$ (same as Environmental Studies 2221 \{200 $\}$ ), and Mathematics $1600\{161\}$.
$2810\{257\}$ a. Atmosphere and Ocean Dynamics. Fall 2013. Mark O. Battle.
A mathematically rigorous analysis of the motions of the atmosphere and oceans on a variety of spatial and temporal scales. Covers fluid dynamics in inertial and rotating reference frames, as well as global and local energy balance, applied to the coupled ocean-atmosphere system. (Same as Environmental Studies 2253 \{253\} and Physics $2810\{257\}$.)

Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
2970-2973 \{291-294\} a. Intermediate Independent Study in Earth and Oceanographic Science: Solid Earth. The Department.

2974-2977 \{291-294\} a. Intermediate Independent Study in Earth and Oceanographic Science: Surface Processes. The Department.

2978-2981 \{291-294\} a. Intermediate Independent Study in Earth and Oceanographic Science: Oceanography. The Department.
2982-2985 \{291-294\} a. Intermediate Independent Study in Earth and Oceanographic Science: Interdisciplinary. The Department.

2999 \{299\} a. Intermediate Collaborative Study in Earth and Oceanographic Science. The Department.

3020 \{302\} a. Earth Climate History. Spring 2014. Philip Camill.
The modern world is experiencing rapid climate warming and some parts extreme drought, which will have dramatic impacts on ecosystems and human societies. How do contemporary warming and aridity compare to past changes in climate over the last billion years? Are modern changes human-caused or part of the natural variability in the climate system? What effects did past changes have on global ecosystems and human societies? Students use environmental records from rocks, soils, ocean cores, ice cores, lake cores, fossil plants, and tree rings to assemble proxies of past changes in climate, atmospheric $\mathrm{CO}_{2}$, and disturbance to examine several issues: long-term carbon cycling and climate, major extinction events, the rise of C4 photosynthesis and the evolution of grazing mammals, orbital forcing and glacial cycles, glacial refugia and post-glacial species migrations, climate change and the rise and collapse of human civilizations, climate/overkill hypothesis of Pleistocene megafauna, climate variability, drought cycles, climate change impacts on disturbances (fire and hurricanes), and determining natural variability vs. human-caused climate change. (Same as Environmental Studies 3902 \{302\}.)

Prerequisite: Earth and Oceanographic Science 2005 \{200\} (same as Environmental Studies $2221\{200\}$ ), or permission of the instructor.
$3050\{357\}$ a. The Physics of Climate. Every other spring. Spring 2015. Mark Battle.
A rigorous treatment of the earth's climate, based on physical principles. Topics include climate feedbacks, sensitivity to perturbations, and the connections between climate and radiative transfer, atmospheric composition, and large-scale circulation of the oceans and atmospheres. Anthropogenic climate change also studied. (Same as Environmental Studies 3957 \{357\} and Physics 3810 \{357\}.)
Prerequisite: One of the following: Physics $2150\{229\}, 2810\{257\}$, or $3000\{300\}$, or permission of the instructor.

3115 \{315\} a. Research in Mineral Science. Spring 2014. Rachel Beane.
Minerals are the Earth's building blocks and an important human resource. The study of minerals provides information on processes that occur within the Earth's core, mantle, crust, and at its surface. At the surface, minerals interact with the hydrosphere, atmosphere, and biosphere, and are essential to understanding environmental issues. Minerals and mineral processes examined using hand-specimens, crystal structures, chemistry, and microscopy. Class projects emphasize mineral-based research.

Prerequisite: Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 \{200\}).

3515 \{351\} a. Research in Oceanography: Topics in Paleoceanography. Fall 2013. Michèle LaVigne.

The ocean plays a key role in regulating Earth's climate and serves as an archive of past climate conditions. The study of paleoceanography provides a baseline of natural oceanographic variability against which human-induced climate change must be assessed. Examination of the ocean's physical, biological, and biogeochemical responses to external and internal forcings of Earth's climate with focus on the Cenozoic Era (past 65.5 million years). Weekly labs and projects emphasize paleoceanographic reconstructions using deep-sea sediments, corals, and ice cores. Includes weekly laboratory sessions.

Prerequisite: Earth and Oceanographic Science 2005 \{200\} (same as Environmental Studies 2221 \{200\}).

4000-4003 \{401-404\} a. Advanced Independent Study in Earth and Oceanographic Science: Solid Earth. The Department.

4004-4007 \{401-404\} a. Advanced Independent Study in Earth and Oceanographic Science: Surface Processes. The Department.

4008-4011 \{401-404\} a. Advanced Independent Study in Earth and Oceanographic Science: Oceanography. The Department.

4012-4015 \{401-404\} a. Advanced Independent Study in Earth and Oceanographic Science: Interdisciplinary. The Department.

4029 \{405\} a. Advanced Collaborative Study in Earth and Oceanographic Science. The Department.
4050-4051 a. Honors Project in Earth and Oceanographic Science: Solid Earth. The Department.

4052-4053 a. Honors Project in Earth and Oceanographic Science: Surface Processes. The Department.
4054-4055 a. Honors Project in Earth and Oceanographic Science: Oceanography. The Department.

## Economics

B. Zorina Khan, Department Chair<br>Elizabeth Weston, Department Coordinator<br>Professors: Rachel Ex Connelly, Deborah S. DeGraff, John M. Fitzgerald $\dagger$, Jonathan P. Goldstein, B. Zorina Khan<br>Associate Professors: Gregory P. DeCoster, Guillermo Herrera<br>Assistant Professors: Stephen J. Meardon, Erik Nelsont, Daniel F. Stone, Yao Tang Fellows: Bing Chen, Yun Kim

The major in economics is designed for students who wish to obtain a systematic introduction to the theoretical and empirical techniques of economics. It provides an opportunity to learn economics as a social science, to study the process of drawing inferences from bodies of data and testing hypotheses against observation, and to apply economic theory to particular social problems. Such problems include Third World economic development, the functioning of economic institutions (e.g., financial markets, labor markets, corporations, government agencies), and current policy issues (e.g., the federal budget, poverty, the environment, globalization, deregulation). The major is a useful preparation for graduate study in economics, law, business, finance, or public administration.

## Requirements for the Major in Economics

The major consists of three core courses (Economics $2555\{255\}, 2556\{256\}$, and 2557 $\{257\}$ ); two advanced topics courses numbered in the 3000 s $\{300$ s $\}$, at least one of which must be designated as a seminar; and two additional courses in economics numbered 2000 $\{200\}$ or higher. Only one of Economics 2301 and $3302\{260$ and 360$\}$ may be counted toward the economics major. Because Economics 1101 \{101\} is a prerequisite for Economics $1102\{102\}$, and both are prerequisites for most other economics courses, most students will begin their work in economics with these introductory courses. Prospective majors are encouraged to take at least one core course by the end of the sophomore year, and all three core courses should normally be completed by the end of the junior year. Note that Economics $2555\{255\}$ is a prerequisite to Economics $2556\{256\}$. Advanced topics courses normally have some combination of Economics 2555 \{255\}, 2556 \{256\}, and 2557 \{257\} as prerequisites. Qualified students may undertake self-designed, interdisciplinary major programs or joint majors between economics and related fields of social analysis.
To fulfill the major (or minor) requirements in economics, or to serve as a prerequisite for non-introductory courses, a grade of C - or better must be earned in a course. Courses required for the major must be taken for regular letter grades (not Credit/D/Fail).

All prospective majors and minors are required to complete Mathematics $1600\{161\}$ or its equivalent prior to enrolling in the core courses. Students who aspire to advanced work in economics (e.g., an honors thesis and/or graduate study in a discipline related to economics) are strongly encouraged to master multivariate calculus (Mathematics $1800\{181\}$ ) and linear algebra (Mathematics $2000\{201\}$ ) early in their careers. Such students are also encouraged to take Mathematics $2606\{265\}$ instead of Economics $2557\{257\}$ as a prerequisite for Economics $3516\{316\}$. The Economics $2557\{257\}$ requirement is waived for students who complete Mathematics $2606\{265\}$ and Economics 3516 \{316\}. Students should consult the Department of Economics about other mathematics courses that are essential for advanced study in economics.

## Interdisciplinary Major

The department participates in an interdisciplinary major in mathematics and economics. See page 219.

## Requirements for the Minor in Economics

The minor consists of Economics $2555\{255\}$ and any two additional courses numbered $2002\{200\}$ or higher. Only one of Economics 2301 and $3302\{260$ and 360$\}$ may be counted toward the economics minor. To fulfill the minor requirements or to serve as a prerequisite for other courses, a grade of C- or better must be earned in a course. Courses required for the minor must be taken for regular letter grades (not Credit/D/Fail).

## Requirements for the Minor in Economics and Finance

The minor in economics and finance consists of Economics $2555\{255\}, 2301\{260\}$, and $3302\{360\}$, and one additional course at the intermediate or advanced level selected from among Economics $2309\{209\}, 2323,2380\{238\}, 2556\{256\}, 2557\{257\}, 3305\{355\}, 3350$ $\{370\}, 3509\{309\}, 3532\{302\}, 3533\{306\}$, and an Intermediate or Advanced Independent Study as approved by the finance advisor. Since Economics $2555\{255\}$ is a prerequisite for Economics $3302\{360\}$ and other upper-level economics courses, prospective minors are encouraged to complete $2555\{255\}$ by the end of their sophomore year. To fulfill the minor requirements or to serve as a prerequisite for other courses, a grade of C - or better must be earned in a course. Courses required for the minor must be taken for regular letter grades (not Credit/D/Fail).

Economics majors cannot also minor in economics and finance. Economics majors who complete the requirements for this minor will be provided validation by the department to enable them to indicate that they have done so.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1018 \{18\} b. The Art of the Deal: Commerce and Culture. Fall 2013. B. Zorina Khan.

## Introductory, Intermediate, and Advanced Courses

 $1101\{101\}$ b - MCSR. Principles of Microeconomics. Every semester. The Department.An introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. The theory of demand, supply, cost, and market structure is developed and then applied to problems in antitrust policy, environmental quality, energy, education, health, the role of the corporation in society, income distribution, and poverty. Students desiring a comprehensive introduction to economic reasoning should take both Economics $1101\{101\}$ and $1102\{102\}$.
$1102\{\mathbf{1 0 2 \}} \boldsymbol{b}$ - MCSR. Principles of Macroeconomics. Every semester. The Department.
An introduction to economic analysis and institutions, with special emphasis on determinants of the level of national income, prices, and employment. Current problems of inflation and unemployment are explored, and alternative views of the effectiveness of fiscal, monetary, and other governmental policies are analyzed. Attention is given to the sources and consequences of economic growth and to the nature and significance of international linkages through goods and capital markets.

Prerequisite: Economics 1101 \{101\} or placement above Economics 1101 \{101\}.

2211 \{211\} b - MCSR. Poverty, Inequality, and Public Policy. Spring 2015. John M. Fitzgerald.

Examines the causes and consequences of poverty and inequality in the United States and analyzes policy responses. Topics include social welfare theory, poverty measurement, discrimination, rising wage inequality, the working poor, and consequences of poverty for families and subsequent generations. Substantial focus on benefit-cost analysis and experimental and non-experimental evaluations of current policy, including preschool, housing vouchers, welfare reform, education and training, and employment programs. Makes limited use of comparisons to other countries.

Prerequisite: Economics 1101 \{101\} or placement above Economics 1101 \{101\}.
2212 \{212\} b - MCSR. Labor and Human Resource Economics. Fall 2014 or Spring 2015. Rachel Connelly.

A study of labor market supply and demand, with special emphasis on human resource policies, human capital formation, and wage inequality.

Prerequisite: Economics $1101\{101\}$ or placement above Economics $1101\{101\}$.
2213 \{213\} b. History of Economic Thought. Fall 2013. Stephen Meardon.
A historical study of insights and methods of inquiry into the functions of markets and the role of government in shaping them. Readings include the original works of economic thinkers from the eighteenth to twentieth centuries, including Adam Smith, David Ricardo, Henry Carey, Karl Marx, Henry George, Thorstein Veblen, and John Maynard Keynes, among others. Different historiographical approaches are employed, including examination of the problems motivating past thinkers as well as the relevance of their ideas to modern economics.

Prerequisite: Economics 1101 \{101\} and 1102 \{102\}, placement above Economics 1102 $\{102\}$, or permission of the instructor.
[2218 \{218\} b - MCSR. Environmental Economics and Policy. (Same as Environmental Studies $2302\{218\}$. .]

2221 \{221\} b - MCSR, ESD. Marxian Political Economy. Fall 2013. Jonathan P. Goldstein.
An alternative (heterodox) analysis of a capitalist market economy rooted in Marx's methodological framework, which focuses on the interconnected role played by market relations, class/power relations, exploitation, and internal tendencies towards growth, crisis, and qualitative change. Students are introduced to the Marxian method and economic theory through a reading of Volume I of Capital. Subsequently, the Marxian framework is applied to analyze the modern capitalist economy with an emphasis on the secular and cyclical instability of the economy, changing institutional structures and their ability to promote growth, labor market issues, globalization, and the decline of the Soviet Union.
Prerequisite: Economics $1100\{100\}$ or $1101\{101\}$, placement above Economics $1101\{101\}$, or permission of the instructor.
$2226\{226\}$ b - IP. Political Economy of Pan-Americanism. Fall 2014 or Spring 2015. Stephen Meardon.

Examines programs for economic and political integration of the Americas from the early nineteenth century to the present. Surveys the material and ideological motives for PanAmericanism from the Congress of Panama (1826) to the Organization of American States
(1948), the draft of a Free Trade Area of the Americas (2001), and beyond. Different forms of integration are evaluated in light of historical consequences and economic ideas. (Same as Latin American Studies 2626 \{226\}.)
Prerequisite: Economics 1101 \{101\} or placement above Economics 1101 \{101\}.
2227 \{227\} b - MCSR, IP. Human Resources and Economic Development. Fall 2014 or Fall 2016. Deborah S. DeGraff.

An analysis of human resource issues in the context of developing countries. Topics include the composition of the labor force by age and gender, productivity of the labor force, unemployment and informal sector employment, child labor and the health and schooling of children, and the effects of structural adjustment policies and other policy interventions on the development and utilization of human resources. Examples from selected African, Asian, and Latin American countries are integrated throughout and the interaction of sociocultural environments with economic forces is considered.

Prerequisite: Economics $1101\{101\}$ or placement above Economics $1101\{101\}$.
2228 \{228\} b - MCSR. Natural Resource Economics and Policy. Spring 2014. Guillermo Herrera.

A study of the economic issues surrounding the existence and use of renewable natural resources (e.g., forestry/land use, fisheries, water, ecosystems, and the effectiveness of antibiotics) and exhaustible resources (such as minerals, fossil fuels, and old growth forest). A basic framework is first developed for determining economically efficient use of resources over time, then extended to consider objectives other than efficiency, as well as the distinguishing biological, ecological, physical, political, and social attributes of each resource. Uncertainty, common property, and various regulatory instruments are discussed, as well as alternatives to government intervention and/or privatization. (Same as Environmental Studies 2303 \{228\}.)
Prerequisite: Economics 1101 \{101\} or placement above Economics 1101 \{101\}.
2239 \{239\} b - IP. Topics on Asian Economies. Fall 2014 or Spring 2015. Yao Tang.
A study of the similarities and differences in growth experience and the level of economic output per person in Asian countries. Explores possible causes of differences in economic paths, with a focus on several important economies, including China and Japan. Also discusses the relationship between the Asian economies and the United States economy. (Same as Asian Studies $2830\{231\}$.)

Prerequisite: Economics 1101 \{101\} and 1102 \{102\}, or placement above Economics 1102 \{102\}.

## 2277 \{277\} - MCSR. Applied Research Practicum: Chinese Rural to Urban Migration. Spring 2014. Rachel Connelly.

Highlights applied research methods in microeconomics. Students work throughout the semester in research teams to analyze data from Chinese rural women on their migration and/ or the migration of their husbands. While topics of Chinese economic life and economic models of migration are studied, primarily focuses on methods: how applied researchers work with data to analyze a set of questions. Elementary statistics is a prerequisite. Statistical techniques beyond the elementary level are taught. (Same as Asian Studies $2090\{269\}$ and Gender and Women's Studies 2277 \{277\}.)

Prerequisite: Economics $1101\{101\}$ and one of the following statistics courses: Economics $2557\{257\}$, Mathematics $1200\{155\}$ or $2606\{265\}$, Psychology $2520\{252\}$, or Sociology $2010\{201\}$; or permission of the instructor.

2301 \{260\} b - MCSR. Financial Analysis. Fall 2013. Bing Chen.
Provides a thorough exposure to asset valuation, portfolio management, and corporate financial decision-making. In addition, presents the financial accounting concepts necessary to utilize corporate financial statements in valuation and decision-making exercises. Topics include functions and structure of the financial system; measures of return and risk, and discounted cash-flow analysis; overview of financial statements and financial statement analysis; portfolio theory, asset pricing models, and efficient markets theory; corporate decision-making-the cost of capital, capital budgeting, and capital structure. Mathematics $1600\{161\}$ is recommended.

Prerequisite: Economics 1101 \{101\} and 1102 \{102\}, or placement above Economics 1102 \{102\}.

## [2309 \{209\} b. Money and Banking.]

2323 b - MCSR. The Economics of Information. Spring 2014. Daniel Stone.
Many standard economic models assume perfect and complete information. The economics of information explores how economic phenomena can be better understood by relaxing this assumption. Topics include decision-making under risk, adverse selection, moral hazard, information processing/belief updating, communication, the efficient market hypothesis, firm competition and reputation, advertising and media. Develops and uses selected tools from probability theory and game theory.
Prerequisite: Economics $1101\{101\}$ or placement above Economics $1101\{101\}$.
[2380 \{238\} b - MCSR. Economic History of American Enterprise.]
$2555\{255\}$ b - MCSR. Microeconomics. Every semester. The Department.
An intermediate-level study of contemporary microeconomic theory. Analysis of the theory of resource allocation and distribution, with major emphasis on systems of markets and prices as a social mechanism for making resource allocation decisions. Topics include the theory of individual choice and demand, the theory of the firm, market equilibrium under competition and monopoly, general equilibrium theory, and welfare economics.
Prerequisite: Economics $1101\{101\}$ and $1102\{102\}$, or placement above Economics 1102; and Mathematics $1600\{161\}$ or higher.

2556 \{256\} b - MCSR. Macroeconomics. Every semester. The Department.
An intermediate-level study of contemporary national income, employment, and inflation theory. Consumption, investment, government receipts, government expenditures, money, and interest rates are examined for their determinants, interrelationships, and role in determining the level of aggregate economic activity. Policy implications are drawn from the analysis.

Prerequisite: Economics $2555\{255\}$.
2557 \{257\} b - MCSR. Economic Statistics. Every semester. The Department.
An introduction to the data and statistical methods used in economics. A review of the systems that generate economic data and the accuracy of such data is followed by an examination of the statistical methods used in testing the hypotheses of economic theory, both micro- and macro-. Probability, random variables and their distributions, methods
of estimating parameters, hypothesis testing, regression, and correlation are covered. The application of multiple regression to economic problems is stressed. Students who have taken Mathematics $2606\{265\}$ are encouraged to take Economics $3516\{316\}$ instead of this course.

Prerequisite: Economics 1101 \{101\} and $1102\{102\}$, or placement above Economics 1102; and Mathematics $1600\{161\}$ or higher.

2970-2973 \{291-294\} b. Intermediate Independent Study in Economics. The Department.
2999 \{299\} b. Intermediate Collaborative Study in Economics. The Department.

Courses numbered higher than $3000\{300\}$ are advanced courses in economic analysis intended primarily for majors. Enrollment in these courses is limited to eighteen students in each unless stated otherwise. Elementary calculus will be used in all courses numbered 3000-3999 \{300-399\}.

3208 \{308\} b. International Trade. Fall 2014 or Spring 2015. The Department.
Offers a theoretical and empirical analysis of international trade. Particular attention is given to the standard models of trade: the Ricardian model, the Heckscher-Ohlin model, the specific factors model, and the monopolistic competition model, as well as an introduction to applied general equilibrium models of trade liberalization. Also analyzes current topics such as barriers to trade (quotas, tariffs); the effects of trade liberalization on wage inequality; regional integration blocs; the globalization debate; and the relation between trade, growth, and productivity. Data analysis is used in order to evaluate the success or shortcomings of the theoretical models.

Prerequisite: Economics $2555\{255\}$ and $2556\{256\}$.
$3302\{360\}$ b. Topics in Finance. Spring 2014. Bing Chen.
A continuation of Economics 2301 \{260\} taught using the tools of standard Intermediate Microeconomics.

Prerequisite: Economics 2301 \{260\} and 2555 \{255\}.
3305 \{355\} b. Game Theory and Strategic Behavior. Spring 2014 or Fall 2014. Daniel Stone.
A rigorous introduction to mathematical game theory, the theory of strategic behavior. Topics include dominance, rationalizability, pure and mixed strategy Nash equilibrium, sequential and repeated games, subgame perfect equilibrium, bargaining, and games of incomplete information. Applications to business, politics, and sports will be discussed. Not open to students who have credit for Economics 2323.

Prerequisite: Economics $2555\{255\}$ or permission of the instructor.
$3350\{370\}$ b. Mathematical Economics. Fall 2014 or Spring 2015. Erik Nelson.
A survey of some of the mathematical techniques used to conduct economic analyses. Topics include utility maximization under uncertainty; solving constrained optimization problems with mathematical programming; optimal control theory; solving complex equations and systems of equations with numerical methods; dynamic programming; and general equilibrium analysis. Students learn to solve problems with MATLAB and other similar programming and statistical software.

Prerequisite: Economics $2555\{255\}$ and Mathematics $1800\{181\}$.

## Egonomics

3509 \{309\} b. International Finance. Fall 2013. Yao Tang.
Seminar. Surveys a number of topics in international finance and international macroeconomics, including balance of payments, exchange rate determination, the MundellFleming model of output and exchange rate, exchange rate regimes, international capital flows, and international financial crises. Involves data analysis to empirically evaluate the theoretical models. Also provides a special focus on Asia by discussing issues such as Asia's role in the global imbalances, China's exchange rate regime, and the currency carry trade associated with the Japanese Yen.
Prerequisite: Economics $2556\{256\}$ and 2557 \{257\}, or permission of the instructor.
$3510\{310\}$ b. Advanced Public Economics. Fall 2014 or Spring 2015. John M. Fitzgerald.
Seminar. A survey of theoretical and empirical evaluations of government activities in the economy, considering both efficiency and equity aspects. Topics include public choice, income redistribution, benefit-cost analysis, analysis of selected government expenditure programs (including social security), incidence and behavioral effects of taxation, and tax reform. Current public policy issues are emphasized. Not open to students who have credit for Economics $2210\{210\}$.

Prerequisite: Economics $2555\{255\}$ and 2557 \{257\}, or permission of the instructor.
3516 \{316\} b. Econometrics. Fall 2013. Jonathan P. Goldstein.
Seminar. A study of the mathematical formulation of economic models and the statistical methods of testing them. A detailed examination of the general linear regression model, its assumptions, and its extensions. Applications to both micro- and macroeconomics are considered. Though most of the course deals with single-equation models, an introduction to the estimation of systems of equations is included. An empirical research paper is required.

Prerequisite: Economics 2557 \{257\} or Mathematics $2606\{265\}$, and Mathematics 1600 $\{161\}$ or higher; or permission of the instructor.
3518 \{318\} b. Environmental and Natural Resource Economics. Fall 2014. Guillermo Herrera.

Seminar. Analysis of externalities and market failure; models of optimum control of pollution and efficient management of renewable and nonrenewable natural resources such as fisheries, forests, and minerals; governmental vs. other forms of control of common-pool resources; and benefit-cost analysis of policies, including market-based and non-market valuation. Permission of instructor required during add/drop for students who have credit for Economics $2218\{218\}$ (same as Environmental Studies $2302\{218\}$ ) or $2228\{228\}$ (same as Environmental Studies 2303 \{228\}). (Same as Environmental Studies 3918 \{318\}.)

Prerequisite: Economics $2555\{255\}$ and 2557 \{257\}.
3519 \{319\} b. The Economics of Development. Fall 2013. Deborah S. DeGraff.
Seminar. Theoretical and empirical analysis of selected microeconomic issues within the context of developing countries. Has a dual focus on modeling household decisions and on the effects of government policy and intervention on household behavior and well being. Topics include agricultural production, land use systems, technology and credit markets, household labor allocation and migration, investment in education and health, and income inequality.

Prerequisite: Economics $2555\{255\}$, and Economics 2557 \{257\} or Mathematics 2606 $\{265\}$, or permission of the instructor.
[3521 \{321\} b. The Economics of Land Use, Ecosystem Services, and Biodiversity. (Same as Environmental Studies 3921 \{321\}.)]

3526 \{326\} b. Trade Doctrines and Trade Deals. Fall 2014 or Spring 2015. Stephen Meardon.
Seminar. An inquiry into the consequences of theory meeting practice in international trade negotiations. The historical relationship between economic ideas and the bilateral trade treaties, multilateral trade arrangements, and retaliatory tariff laws of Great Britain and the United States considered. The timeline extends from the eighteenth century to the present, from the Treaty of Methuen (1703) to the World Trade Organization.
Prerequisite: Economics $2555\{255\}$.
3531 \{301\} b. The Economics of the Family. Fall 2013. Rachel Connelly.
Seminar. Microeconomic analysis of the family-gender roles and related institutions. Topics include marriage, fertility, married women's labor supply, divorce, and the family as an economic organization. (Same as Gender and Women's Studies 3302 \{302\}.)

Prerequisite: Economics 2555 \{255\} and Economics 2557 \{257\}, or permission of the instructor.

3532 \{302\} b. Business Cycles. Spring 2014. Jonathan P. Goldstein.
Seminar. A survey of competing theories of the business cycle, empirical tests of cycle theories, and appropriate macro stabilization policies. Topics include descriptive and historical analysis of cyclical fluctuations in the United States, Keynesian-Kaleckian multiplieraccelerator models, growth cycle models, theories of financial instability, Marxian crisis theory, new classical and new Keynesian theories, and international aspects of business cycles. The current global financial crisis is also analyzed.
Prerequisite: Economics $2556\{256\}$ or permission of the instructor.
3533 \{306\} b. Behavioral Economics. Spring 2014 or Fall 2014. Daniel Stone.
Seminar. Standard economics (i.e., neoclassical economics) assumes that individuals are self-interested, rational actors, who optimize well-defined, stable objective functions. Behavioral economics is the study of systematic departures from these assumptions, and the implications for economic outcomes. Topics include errors in information-processing and belief formation, behavioral choice under uncertainty (loss aversion, reference dependence), time inconsistent behavior (self-control problems), and social preferences (altruism, fairness, and reciprocity).
Prerequisite: Economics $2555\{255\}$ and 2557 \{257\}.
$3540\{340\}$ b. Law and Economics. Spring 2014. B. Zorina Khan.
Seminar. Law and economics is one of the most rapidly growing areas in the social sciences. The field applies the concepts and empirical methods of economics to further our understanding of the legal system. Explores the economic analysis of law and legal institutions, including the economics of torts, contracts, property, crime, courts, and dispute resolution. Also focuses on topics in law and economics such as antitrust and regulation, corporations, the family, labor markets, product liability, and intellectual property. Students are introduced to online sources of information in law, and are required to apply economic reasoning to analyze landmark lawsuits in each of these areas. Not open to students who have credit for Economics 3541 \{341\}.
Prerequisite: Economics $2555\{255\}$ or permission of the instructor.

4000-4003 \{401-404\} b. Advanced Independent Study in Economics. The Department. $4029\{405\}$ b. Advanced Collaborative Study in Economics. The Department. 4050-4051 b. Honors Project in Economics. The Department.

## Education

Nancy Jennings, Department Cbair<br>Lynn A. Brettler, Department Coordinator

Associate Professors: Charles Dorn*, Nancy Jennings, Doris A. Santoro<br>Lecturer: Kathleen O'Connor<br>Visiting Faculty: Kathryn Byrnes<br>Fellow: Casey Meehan

Bowdoin College does not offer a major in education.

## Requirements for the Minor in Education

The department offers two minors: an Education Studies minor for students who wish to develop an understanding of the history and philosophy of education and its interrelationships with other cultural and social institutions and a Teaching minor for students who plan to teach in some capacity following graduation. Four and one-half courses are required for the Education Studies minor: Education 1101 \{101\}; three from among Education $2211\{211\}, 2212\{212\}$ (same as Gay and Lesbian Studies $2120\{212\}$ and Gender and Women's Studies $2282\{282\}$ ), $2221\{221\}, 2250\{250\}$ (same as Government 2940 $\{219\}), 2265\{265\}$, and $3325\{325\}$; and Education 3333 \{333\}. One independent study credit, study away course, or course from another department that is not cross-listed with education may be used to complete the Education Studies minor with department approval. Four courses are required for the Teaching minor: Education 1101 \{101\}, 2203 \{203\}, 3301 $\{301\}$, and $3302\{303\}$. Courses that will count toward either minor must be taken for regular letter grades (not Credit/D/Fail) with the exception of Education 3333 \{333\}. Students must earn a grade of C - or better in order to have a course count toward either minor in education. Students must earn a grade of C- or higher in all prerequisite courses.

## Bowdoin Teacher Scholars Program

The Bowdoin Teacher Scholars are a select group of Bowdoin undergraduates and graduates who embrace the College's commitment to the common good by becoming teachers through a rigorous scholarly and classroom-based preparation.

## The Teacher Scholars:

1. Complete a full-time, 14-week, student-teaching practicum in a public school.
2. Participate in an introspective weekly seminar.
3. Develop a professional portfolio.
4. Receive a Maine State Department of Education Public School Teaching Certificate, making them eligible to teach in any public school in the United States.

## Courses of Instruation

5. Gain access to the Boston, New York, and Philadelphia Teaching Induction Programs sponsored by the Consortium for Excellence in Teacher Education.

To become a Teacher Scholar, students must apply for candidacy through the education department, be a community member in good standing as verified by Dean's Review, and have a strong academic record. A cumulative 3.0 grade point average is required as well as a 3.0 grade point average in Education 3301 \{301\} and Education 3302 \{303\}. Subject areas of certification include mathematics, life science, physical science, English, world languages, and social studies. Since majors at Bowdoin do not correspond directly with subject areas for public school certification, students are strongly encouraged to meet with a member of the education department early in their college careers.

## Content Area Requirement for Bowdoin Teacher Scholars

Social Studies: Six courses in history (at least two of which must be non-U.S.) and one course each in two of the following departments: anthropology, economics, government, psychology, or sociology.

English: Eight courses in English.
Mathematics: Eight courses in mathematics.
World Languages: Eight courses in the language in which certification is sought.
Life Science: Six courses in biology and two additional courses in biology, biochemistry, or neuroscience.

Pbysical Science: Six courses in one of the following: chemistry, earth and oceanographic science, or physics, and one course in each of the other two departments.

Also note that teaching candidates must be fingerprinted and earn a passing score on all examinations specified by the Maine Department of Education. Since this requirement was first instituted, Bowdoin students' pass rate has been $100 \%$.

## Pathways

Bowdoin Teacher Scholars follow one of two pathways. In the first, students participate in the program as undergraduates during the spring semester of their junior or senior year. In the second, they participate in the program during a spring semester within two years following their Bowdoin graduation.

## Undergraduate Pathway

By the end of the fall semester of their junior or senior year, Teacher Scholars:

1. Complete prerequisite coursework in education (Education 1101 \{101\}, $2203\{203\}, 3301$ $\{301\}$, and $3302\{303\}$ ) and in the chosen content area.

During the spring semester of their junior or senior year, Teacher Scholars:
2. Complete a full-time, 14-week practicum (students receive course credit for this practicum through Education 3303 \{302\}: Student Teaching Practicum).
3. Enroll in Education 3304 \{304\}: Bowdoin Teacher Scholars Seminar.

## Postgraduate Pathway

By the time they graduate from Bowdoin, Teacher Scholars:

1. Complete prerequisite coursework in Education (Education 1101 \{101\}, 2203 \{203\}, 3301 $\{301\}$, and $3302\{303\}$ ) and in the chosen content area.

During a spring semester and within two years of their Bowdoin graduation, Teacher Scholars:
2. Complete a full-time, 14 -week practicum (students receive course credit for this practicum through Education 3303 \{302\}: Student Teaching Practicum).
3. Enroll in Education 3304 \{304\}: Bowdoin Teacher Scholars Seminar.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
$1015\{15\}$ c. Urban Education. Fall 2013. Doris Santoro.
[ 1020 \{20\} c. The Educational Crusade.]

## Introductory, Intermediate, and Advanced Courses

1101 \{101\} c - ESD. Contemporary American Education. Fall 2013. Doris Santoro. Spring 2014. The Department.

Examines current educational issues in the United States and the role schools play in society. Topics include the purpose of schooling; school funding and governance; issues of race, class, and gender; school choice; and the reform movements of the 1990s. The role of schools and colleges in society's pursuit of equality and excellence forms the backdrop of this study.

2203 \{203\} c - ESD. Educating All Students. Fall 2013. Kathryn Byrnes. Spring 2014. Casey Meehan.

An examination of the economic, social, political, and pedagogical implications of universal education in American classrooms. Focuses on the right of every child, including physically handicapped, learning disabled, and gifted children, to equal educational opportunity. Requires a minimum of twenty-four hours of observation in a local secondary school.
Prerequisite: Education $1020\{20\}$ or $1101\{101\}$.
$2206\{206\}$ b - ESD. Sociology of Education. Fall 2013. Ingrid Nelson.
Examines the ways that formal schooling influences individuals and the ways that social structures and processes affect educational institutions. Explores the manifest and latent functions of education in modern society; the role education plays in stratification and social reproduction; the relationship between education and cultural capital; the dynamics of race, class, and gender in education; and other topics. (Same as Sociology $2206\{206\}$.)
Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}, and a course in sociology numbered 2000-2969 \{200-289\}.

## $2211\{211\}$ c. Education and the Human Condition. Spring 2014. Doris Santoro.

Explores the relationship between education and being/becoming human. Topics may be guided by the questions: What does it mean to be an educated person? How can education lead to emancipation? How might teaching and learning lead to the good life? What is our responsibility to teach the next generation? Readings may include works by Hannah Arendt, John Dewey, W. E. B. Du Bois, Plato, and Jacques Rancière, among others.
2212 \{212\} c - ESD. Gender, Sexuality, and Schooling. Fall 2014. Doris Santoro.
Schools are sites where young people learn to "do" gender and sexuality through direct instruction, the hidden curriculum, and peer-to-peer learning. In schools, gender and sexuality are challenged, constrained, constructed, normalized, and performed. Explores instructional and curricular reforms that have attempted to address students' and teachers' sexual identities
and behavior. Examines the effects of gender and sexual identity on students' experience of school, their academic achievement, and the work of teaching. Topics may include Compulsory Heterosexuality in the Curriculum; the Gender of the Good Student and Good Teacher; Sex Ed in an Age of Abstinence. (Same as Gay and Lesbian Studies $2120\{212\}$ and Gender and Women's Studies 2282 \{282\}.)

Prerequisite: One of the following: Education 1101 \{101\}, Gay and Lesbian Studies 2001 \{201\}, or Gender and Women's Studies 1101 \{101\}.

## 2221 \{221\} c. Democracy's Citadel: Education and Citizenship in America. Fall 2014.

 Charles Dorn.Examines the relationship between education, citizenship, and democracy in America. Questions explored include: What does "public" mean and how necessary is a "public" to democracy? Is there something "democratic" about how Americans choose to govern their schools? What does "citizenship" mean? Is education a public good with a collective economic and civic benefit, a private good with benefits to individuals whose future earnings depend on the quality of their education, or some combination of the two? What type of curriculum is most important for civic education and how should it be taught? What policies are necessary to prevent economic inequality from undermining education's role in fostering democratic citizenship? To what extent are the concepts of "education for democracy" and "democratic education" related?

Prerequisite: Education $1020\{20\}$ or 1101 \{101\}.

## 2222 \{222\} b. Educational Psychology. Fall 2013. Kathryn Byrnes.

Examines theories of how people learn and the implications of those theories for the education of all students, particularly those who have been traditionally underserved in the United States. Course concepts will be grounded in empirical research and authentic activities geared toward understanding the nuances and complexities of perspectives on behavior, cognition, development, motivation, sociocultural identities, and pedagogy in PreK-12 educational contexts. Insights for the ways educators can structure learning experiences to better serve students' needs from a variety of backgrounds will be cultivated through a field placement working with students. (Same as Psychology 2012 \{222\}.)
Prerequisite: Education 1101 \{101\}, Psychology 1101 \{101\}, or placement above Psychology 1101 \{101\}.
[2250 \{250\} c. Education and Law. (Same as Government $2940\{219\}$. )]
2251 \{251\} c. Teaching Writing: Theory and Practice. Fall 2013. Kathleen O’Connor.
Explores theories and methods of teaching writing, emphasizing collaborative learning and peer tutoring. Examines relationships between the writing process and the written product, writing and learning, and language and communities. Investigates disciplinary writing conventions, influences of gender and culture on language and learning, and concerns of ESL and learning-disabled writers. Students practice and reflect on revising, responding to others' writing, and conducting conferences. Prepares students to serve as writing assistants for the Writing Project.

Prerequisite: Permission of the instructor. Selection during the previous spring semester by application to the Writing Project (see page 314).
2265 \{265\} c. Place-Based Education. Fall 2013. Casey Meehan.
One critique of $\mathrm{K}-12$ schooling is that it separates the learning happening within the school
walls from the places people inhabit. Explores the prospects and challenges of connecting the natural environment and community surroundings with formal K -12 educational settings, and investigates the historical and theoretical underpinnings of environmental education, place-based education, outdoor education, and sustainability education. Special attention given to the pedagogical dilemmas and opportunities these forms of education pose for teachers preparing students to live in a democratic society. (Same as Environmental Studies 2465 \{265\}.)

Prerequisite: Education 1101 \{101\}.
2970-2973 \{291-294\} c. Intermediate Independent Study in Education. The Department.
2999 \{299\} c. Intermediate Collaborative Study in Education. The Department.
3301 \{301\} c. Teaching and Learning. Fall 2013. Nancy Jennings and Casey Meehan.
A study of what takes place in classrooms: the methods and purposes of teachers, the response of students, and the organizational context. Readings and discussions help inform students' direct observations and written accounts of local classrooms. Peer teaching is an integral part of the course experience. Requires a minimum of thirty-six hours of observation in a local secondary school. Education $3302\{303\}$ must be taken concurrently with this course. In order to qualify for this course students must have previously taken Education 1101 $\{101\}$ and $2203\{203\}$; have junior or senior standing; and have a concentration in a core secondary school subject area (English: four courses in English; world languages: four courses in the language; life science: four courses in biology; mathematics: four courses in mathematics; physical science: three courses in chemistry, earth and oceanographic science, or physics and one course in one of the other departments listed; or social studies: three courses in history and one course in anthropology, economics, government, psychology, or sociology).

Prerequisite: Permission of the instructor.
3302 \{303\} c. Curriculum. Fall 2013. Nancy Jennings and Casey Meehan.
A study of the knowledge taught in schools; its selection and the rationale by which one course of study rather than another is included; its adaptation for different disciplines and for different categories of students; its cognitive and social purposes; the organization and integration of its various components. Education 3301 \{301\} must be taken concurrently with this course. In order to qualify for this course, students must have previously taken Education $1101\{101\}$ and $2203\{203\}$; have junior or senior standing; and have a concentration in a core secondary school subject area (English: four courses in English; world languages: four courses in the language; life science: four courses in biology; mathematics: four courses in mathematics; physical science: three courses in chemistry, earth and oceanographic science, or physics and one course in one of the other departments listed; or social studies: three courses in history and one course in anthropology, economics, government, psychology, or sociology).

Prerequisite: Permission of the instructor.
3303 \{302\} c. Student Teaching Practicum. Spring 2014. The Department.
Required of all students who seek secondary public school certification, this final course in the student teaching sequence requires that students work full time in a local secondary school from early January to late April. Grading is Credit/D/Fail. Education 3304 \{304\} must be taken concurrently. Students must complete an application and interview. Students with the following are eligible for this course: Education $2203\{203\}, 3301\{301\}$, and $3302\{303\}$; junior or senior standing; a cumulative 3.0 grade point average; a 3.0 grade point average in Education 3301 \{301\} and $3302\{303\}$; and eight courses in a subject area that enables
them to be certified by the State of Maine (English: eight courses in English; world language: eight courses in the language; life science: six courses in biology and two additional courses in biology, biochemistry, or neuroscience; mathematics: eight courses in mathematics; physical science: six courses in chemistry, earth and oceanographic science, or physics, and one course in each of the other departments listed; or social studies: six courses in history (at least two must be non-United States history) and one course each in two of the following departments: anthropology, economics, government, psychology, or sociology).
Prerequisite: Permission of the instructor.
3304 \{304\} c. Bowdoin Teacher Scholars Seminar. Spring 2014. The Department.
Taken concurrently with Education 3303 \{302\}, Student Teaching Practicum. Considers theoretical and practical issues related to effective classroom instruction. Students with the following are eligible for this course: Education $2203\{203\}, 3301\{301\}$, and $3302\{303\}$; junior or senior standing; a cumulative 3.0 grade point average; a 3.0 grade point average in Education 3301 \{301\} and $3302\{303\}$; and eight courses in a subject area that enables them to be certified by the State of Maine (English: eight courses in English; world language: eight courses in the language; life science: six courses in biology and two additional courses in biology, biochemistry, or neuroscience; mathematics: eight courses in mathematics; physical science: six courses in chemistry, earth and oceanographic science, or physics, and one course in each of the other departments listed; or social studies: six courses in history (at least two must be non-United States history) and one course each in two of the following departments: anthropology, economics, government, psychology, or sociology).
Prerequisite: Permission of the instructor.
3325 \{325\} b. Mindfulness in Education. Spring 2014. Kathryn Byrnes.
An exploration of the educational techniques/methods that human beings have found, across cultures and time, to concentrate, broaden, and deepen awareness of thoughts, emotions, and bodily sensations. Holistic and interdisciplinary lens on the theory and processes of how people learn. Focus on educational models that encourage and foster mindful learning such as Montessori and Waldorf. Seminar-style dialogue on course readings complemented by contemplative practices such as yoga, meditation, tai chi.
Prerequisite: Education $1020\{20\}$ or 1101 \{101\}, and Education 2203 \{203\}.
3333. Education Studies Capstone. Spring 2014. The Department.

Provides students with the opportunity to synthesize issues in educational studies addressed in previous coursework. Through an experiential project, students deepen their understanding of how schools both mirror and change the societies that create them. One-half credit. Grading is Credit/D/Fail.
Prerequisite: Education $1101\{101\}$ and three of the following: $2211\{211\}, 2212\{212\}, 2221$ $\{221\}, 2250\{250\}$ (same as Government $2940\{219\}$ ), or $3325\{325\}$; or permission of the instructor.

4000-4003 \{401-404\} c. Advanced Independent Study in Education. The Department.
4029 \{405\} c. Advanced Collaborative Study in Education. The Department.

## English

Aaron Kitch, Department Chair
Laurie Holland, Department Coordinator
Professors: Brock Clarke, David Collings, Peter Coviello, Celeste Goodridge, Marilyn Reizbaum, William C. Watterson
Associate Professors: Aviva Briefel (Film Studies), Tess Chakkalakal (Africana Studies), Guy Mark Foster, Ann Louise Kibbie, Aaron Kitch, Belinda Kong (Asian Studies), Elizabeth Muther Assistant Professors: Emma Maggie Solberg, Hilary Thompson
Writer in Residence: Anthony E. Walton
Visiting Faculty: Jaed Coffin, Russell Rymer

## Requirements for the Major in English and American Literature

The major requires a minimum of ten courses. Each student must take one first-year seminar (English 1000-1049 \{10-29\}) or introductory course (English 1100-1999 \{104-110\}), either of which will serve as a prerequisite to further study in the major. At least three of the ten courses must be chosen from offerings in British and Irish literature before 1800. These are courses in Old English and Medieval literature, Renaissance literature, and the literature of the Restoration and the eighteenth century. The individual courses that satisfy this requirement are identified by a note in the course description. Only one of these three courses may be a Shakespeare drama course, and only one may be a Chaucer course. Only one transfer course may count toward this requirement. At least one of the ten courses must be chosen from offerings in literature of the Americas. The individual courses that satisfy this requirement are identified by a note in the course description. Also, each student must take at least one advanced seminar in the department (any English course numbered 3000-3999 $\{300-399\})$. Students may, when appropriate, also count the advanced seminar toward one of the requirements listed above. Transfer credits will not count for the advanced seminar requirement. The remaining courses may be selected from the foregoing and/or first-year seminars; Introductory or Advanced Creative Writing; intermediate or advanced Literary Analysis (numbered $2000\{200\}$ or higher); Independent Study; and Advanced Independent Study/Honors (numbered 4000-4029 \{400-405\}). No more than two courses may come from the department's roster of first-year seminars and introductory courses; no more than two creative writing courses will count toward the major. As one of two courses outside the department, one upper-level course in film studies may be counted toward the major; courses in expository writing, journalism, and communication are not eligible for major credit. Credit toward the major for advanced literature courses in another language, provided that the works are read in that language, must be arranged with the chair.

Important note: Beginning with the class of 2017, English majors will be required to take one intermediate seminar and will no longer be required to take a course in Literature of the Americas.

Majors who are candidates for honors must write an honors essay and take an oral examination in the spring of their senior year.

## Interdisciplinary Major

The department participates in an interdisciplinary major in English and Theater. See page 217.

## Requirements for the Major in English with Concentration in Creative Writing

The requirements for the Concentration in Creative Writing are identical to those of the English major, with these additions: a level I and a level II creative writing course in a single genre (poetry or fiction), and an additional elective course in creative writing.

## Requirements for the Minor in English and American Literature

The minor requires five courses in the department, including one first-year seminar (English 1000-1049 \{10-29\}) or introductory course (English 1100-1999 \{104-110\}). At least three of the remaining four courses must be numbered $2000\{200\}$ or higher. No more than one creative writing course may count toward the minor, and no courses in expository writing, film, communication, or journalism will count. Students may not apply transfer credits to the minor.

## First-Year Seminars in English Composition and Literature

These courses are open to first-year students. The main purpose of the first-year seminars (no matter what the topic or reading list) is to give first-year students extensive practice in reading and writing analytically. Each seminar is normally limited to sixteen students and includes discussion, outside reading, frequent papers, and individual conferences on writing problems. For a full description of first-year seminars, see pages 157-168.
$1003\{10\}$ c. Shakespeare's Afterlives. Fall 2013. Aaron Kitch.
1013 \{12\} c. Homebodies: Geography as Identity in Fiction. Fall 2013. Sarah Braunstein. (Same as Gender and Women's Studies 1013 \{26\}.)
$1016\{13\}$ c. Hawthorne. Fall 2013. William Watterson.
$1026\{26\}$ c. Fictions of Freedom. Fall 2013. Tess Chakkalakal. (Same as Africana Studies 1026 \{16\}.)

1041 \{21\} c. Arab and Jew in Literature and Film. Spring 2014. Marilyn Reizbaum.
$1042\{22\}$ c. Transfigurations of Song. Fall 2013. David Collings.
1043 \{29\} c. Fact and Fiction. Fall 2013. Brock Clarke.
1046 \{24\} c. After Kafka. Fall 2013. Hilary Thompson.
1047 \{23\} c. Early European Representations of Islam. Fall 2013. Emma Maggie Solberg. 1048 \{25\} c. Contemporary Short Fiction in English. Fall 2013. Celeste Goodridge.

## Introductory Courses in Literature

1100-1199 \{104-110\}. Primarily intended for first- and second-year students, and for juniors and seniors with no prior experience in college literature courses. (Specific content and focus of each course will vary with the instructor.)
[1104 $\{104\}$ c. From Page to Screen: Film Adaptation and Narrative. (Same as Film Studies 1104 \{104\}.)]

1105 \{105\} c. Introduction to Poetry. Fall 2013. Peter Coviello.
Aims to understand poetry's varied workings, considering, most extensively, the basic materials-words, lines, metaphors, sentences-from which poems have traditionally been assembled. By studying closely the components of meter, diction, syntax and line, rhyme, and
figure-in essence, how poems work-aims to see more clearly into the ends poems work for: meaning, rhapsody, transport, etc.

1106 \{106\} c. Introduction to Drama. Spring 2014. William Watterson.
Traces the development of dramatic form, character, and style from classical Greece through the Renaissance and Enlightenment to contemporary America and Africa. Explores the evolution of plot design, with special attention to the politics of playing, the shifting strategies of representing human agency, and contemporary relationships between the theater and a variety of forms of mass media. Authors may include Sophocles, Aristophanes, Marlowe, Shakespeare, Dryden, Ibsen, Wilde, Beckett, Mamet, and Churchill. (Same as Theater 1806 \{106\}.)
$1107\{107\}$ c - ESD. Introduction to African American Literary Fiction. Spring 2015. Tess Chakkalakal.

Introduces students to the literary and historical aspects of the black novel as it developed in the late nineteenth and early twentieth century in the United States. Begins with a consideration of the novels of Charles Chesnutt, Sutton Griggs, and Pauline Hopkins, then examines the ways in which novelists of the Harlem Renaissance-James Weldon Johnson, Nella Larsen, and W. E. B. Du Bois-played with both the form and function of the novel during this era. Then considers how novels by Richard Wright, Chester Himes, and Ralph Ellison challenged and reformed the black novel's historical scope and aesthetic aims. (Same as Africana Studies 1107 \{107\}).
$1114\{114\}$ c. Introduction to Narrative. Spring 2014. Elizabeth Muther.
Explores the shapes and seductions of narrative, the stories we dream and imagine, tell or are told. Considers plot design, narrative time, and the history of narrative forms. Of special interest are narrative desire, suspense and suspicion; and graphic fiction and sequential art.

## Courses in Composition

1060 \{60\} c. English Composition. Fall 2013. Belinda Kong. Spring 2014. Guy Mark Foster and Ann Kibbie.
Practice in developing the skills needed to write and revise college-level expository essays. Explores the close relationship between critical reading and writing. Assignment sequences and different modes of analysis and response enable students to write fully developed expository essays. Does not count toward the major or minor in English.

## Introductory Courses in Creative Writing

1228 \{128\} c. Introductory Fiction Workshop. Fall 2013 and Spring 2014. Brock Clarke.
Begins with an examination of some technical aspects of fiction writing. In particular, considers those that we tend to take for granted as readers and need to understand better as writers, e.g., point of view, characterization, dialogue, foreshadowing, scene, and summary. Students read and discuss published stories, and work through a series of exercises to write their own stories. Workshop discussion is an integral part.
$1240\{126\}$ c. Creative Nonfiction Writing. Fall 2013. Jaed Coffin.
Explores a range of creative nonfiction from the personal essay to new journalism with an emphasis on the elements of structure, voice, and style. Students will read and discuss published nonfiction and write their own narratives. Students are expected to fully participate in weekly workshop discussions.

## Advanced Courses in Creative Writing

2852 \{216\} c. Creative Writing: Poetry II. Fall 2013. Anthony Walton.
Builds upon the method of studying and crafting poetry encountered in English 1225 \{125\}. Students exposed to advanced methods of writing and interpretation, including the in-depth study of one particular poet's oeuvre and evolution. Students encouraged to develop a more comprehensive view of their own individual poetic practices. Each week students responsible for evaluating the assigned reading and for writing poems. Preference given to students who have successfully completed English 1225 \{125\}.
Prerequisite: Permission of the instructor.
2853 \{217\} c. Advanced Fiction Workshop. Spring 2014. Brock Clarke.
Presumes a familiarity with the mechanics of fiction and, ideally, previous experience in a fiction workshop. Uses published stories and stories by students to explore questions of voice and tone, structure and plot, how to deepen one's characters, and how to make stories resonate at a higher level. Students write several stories during the semester and revise at least one. Workshop discussion and critiques are an integral part.

Prerequisite: Permission of the instructor.

## Intermediate Seminars in English and American Literature

These seminars are open to both majors and non-majors-and are normally limited to sixteen students. They provide opportunities for students to focus intensively on critical reading and writing skills and to learn advanced research methods. Each seminar explores a unique topic while introducing students to literary theory and other critical paradigms and tools of literary studies.

2002 \{208\} c. Victorian Urban Narratives. Spring 2014. Aviva Briefel.
Seminar. An exploration of London as space and character in Victorian literary narratives. Considers such topics as the intersections between identity and urban setting; the relationship between genre and literary space; and the overlaps in mappings of cities and narrative. Consideration of literary and cultural theory and criticism is central. Authors may include Conrad, Dickens, Dixon, Doyle, Gissing, Marsh, and Wilde. (Same as Gay and Lesbian Studies 2002 \{202\} and Gender and Women's Studies 2202 \{202\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
$2003\{219\}$ c. Trolls, Frogs, and Princesses: Fairy Tales and Retellings. Fall 2013. Elizabeth Muther.

Seminar. Explores the resiliency of fairy tales across cultural boundaries and historical time. Traces the genealogical origins of the classic tales, as well as their metamorphoses in historical and contemporary variants, fractured tales, and adaptations in literature and film. Engages a spectrum of related texts in literary and cultural theory and criticism.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2006 \{200\} c. Getting Real : The Development of Literary Realism. Fall 2013. Marilyn Reizbaum.

Seminar. Examines the development of literary Realism in English letters. Considers the wider movement in the arts, in particular the visual arts, taking into account, in photography, for
example, the scientific propositions that underlie certain theories of the "real" or "objective reality." Touches on theoretical debates surrounding the genre. Authors may include Ruskin, Dickens, Hardy, Peter Brooks, Virginia Woolf, Sherwood Anderson, Susan Sontag, Erich Auerbach, Lorrie Moore, and Frederick Wiseman.
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.

## 2007 c. The Monstrosity of Revolution: Radicalism and Reaction in British Literature,

 1789-1834. Spring 2014. David Collings.Seminar. Examines the rise of and responses to radical writing in the wake of the French Revolution, with a particular focus on the many contexts informing the novel Frankenstein. Focuses on the emergence of feminist critique, radical fiction, philosophical anarchism, and the poetics of non-violent resistance, as well as the defense of tradition and the depiction of revolution as monstrosity. Discusses such authors as Burke, Wollstonecraft, Godwin, Rousseau, and Percy and Mary Shelley in tandem with contemporary critical essays. (Same as Gender and Women's Studies 2607.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or gender and women's studies.

2008 c. Chaucer's Dreams. Spring 2014. Emma Maggie Solberg.
Seminar. Introduces students to the work of Geoffrey Chaucer ("the father of English poetry," as Dryden called him) by way of his dream visions, poems in which the poet-dreamer drifts off to sleep and explores, via medieval astral projection, fantastical mental landscapes. In his dreams, Chaucer visits magical gardens full of talking birds, outer space ("the Galaxie, / which men clepeth [call] the Milky Wey"), and the virtual realities of his favorite books, like Virgil's Aeneid and Ovid's Metamorphoses. In order to fully comprehend Chaucer's allusions, students read his dream visions in the contexts of their sources and analogues; in other words, following Chaucer's guide to medieval learning. Students will gain reading proficiency in Middle English; no previous experience with Middle English necessary. In the spirit of Chaucer's dream visions, which creatively reimagine and adapt older literature, students can opt to substitute creative projects for their final independent research paper. Texts include: Chaucer's The Book of the Duchess, The Parliament of Fowls, The House of Fame, and The Legend of Good Women; Cicero's Dream of Scipio, Boethius's Consolation of Pbilosophy, and Le Roman de la rose (The Romance of the Rose). Note: This course fulfills the pre-1800 literature requirement for English majors.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.

## Advanced Courses in English and American Literature

2107 \{204\} c. Introduction to Medieval British Literature. Fall 2013. Emma Maggie Solberg.
Introduces students to the literature of medieval Britain, excluding Chaucer. Begins with the first poem ever written in English (or rather Old English), continues through tribal sagas (Beowulf, the Welsh Mabinogian, the Irish Tain) and Arthurian romances (the Lais of Marie de France, Sir Gawain and the Green Knight), and concludes with extensive coverage of the literature of the fifteenth century: mystical theology (The Showings of Julian of Norwich, The Cloud of Unknowing), gory martyrdoms (Christina the Astonishing, the York Passion Play), lyric poetry ranging from the numinous to the obscene (anonymous and by poets including Dunbar and Skelton), the global travel narrative of Sir John Mandeville, and tales of Robin Hood. Students will gain a very rudimentary ability to translate Old English as well as reading
proficiency in Middle English. Note: This course fulfills the pre-1800 literature requirement for English majors.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2108 c. Medieval Drama. Spring 2014. Emma Maggie Solberg.
Knowledge of theater history tends to skip from the tragedies of Ancient Greece to Shakespeare's Renaissance, leaving the Middle Ages in dark obscurity. Aims to illuminate the underappreciated treasure trove of medieval drama, a genre that flourished across Europe for more than five centuries. Texts range from the tenth-century work of the female playwright Hrotswitha ("Strong-Voice") to sixteenth-century English drama banned by the Protestant Reformation. Reading also spans a wide variety of genres: bloody martyrdoms, dirty farces, Robin Hood plays, romances of knights and ladies, moralities, and mysteries. Students will gain reading proficiency in Middle English; no previous experience with Middle English necessary. Texts include: Hrotswitha of Gandersheim's Dulcitius, "Robyn Hod and the Shryff of Notyngham," "Farce nouvelle et fort joyeuse du Pect" ("The Farce of the Fart"), the York Cycle, Mankind, and Fulgens and Lucrece. Note: This course fulfills the pre-1800 literature requirement for English majors.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
$2150\{210\}$ c. Shakespeare's Comedies and Romances. Fall 2013. William Watterson.
Examines A Midsummer Night's Dream, The Merchant of Venice, Twelfth Night, As You Like It, The Winter's Tale, and The Tempest in light of Renaissance genre theory. Note: This course fulfills the pre-1800 literature requirement for English majors. (Same as Theater $2810\{210\}$.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2151 \{211\} c. Shakespeare's Tragedies and Roman Plays. Spring 2014. William Watterson.
Examines Hamlet, Othello, Macbeth, King Lear, Julius Caesar, Antony and Cleopatra, and Coriolanus in light of recent critical thought. Special attention is given to psychoanalysis, new historicism, and genre theory. Note: This course fulfills the pre-1800 literature requirement for English majors. (Same as Theater 2811 \{211\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2200 \{223\} c - VPA. English Renaissance Drama. Fall 2013. Aaron Kitch.
Explores the explosion of popular drama in London following the construction of the first permanent theaters in the 1560s. Pays special attention to the forms of drama that audiences liked best-those portraying revenge, marriage, middle-class ascendancy, and adultery.
Topics include the cultural space of the theater, the structure of playing companies, and the cultivation of blank verse as a vehicle for theatrical expression. Students will master the styles of different playwrights, examine the topography of the Globe theater, and try out different staging techniques. Authors include Shakespeare, Thomas Kyd, Christopher Marlowe, Ben Jonson, and Thomas Middleton. Note: This course fulfills the pre-1800 literature requirement for English majors. (Same as Theater 2823 \{223\}.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2290 \{229\} c. Milton. Fall 2013. Ann Kibbie.
A critical study of Milton's major works in poetry and prose, with special emphasis on Paradise Lost. Note: This course fulfills the pre-1800 literature requirement for English majors.
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
$2304\{231\}$ c. Age of Satire. Spring 2014. Ann Kibbie.
Explores various forms of satire and parody in the prose, poetry, drama, and visual art of the Restoration and the Eighteenth Century, as well as the various attempts to censor or otherwise control satire. Works will include Alexander Pope's Rape of the Lock, John Gay's Beggar's Opera, Jonathan Swift's Gulliver's Travels, Henry Fielding's Tom Jones, and the paintings and prints of William Hogarth. Note: This course fulfills the pre-1800 literature requirement for English majors.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2351 \{236\} c. Romantic Sexualities. Spring 2014. David Collings.
Investigates constructions of sexuality in English romantic writing. Examines tales of seduction by supernatural or demonic figures; the sexualized world of the Gothic; the Byronic hero; lyrical depictions of incest; the yearning for an eroticized muse or goddess; and samesex desire in travel writing, diaries, and realist fiction. Discusses the place of such writing in the history of sexual identities, repression, the unconscious, and the sublime. Authors may include Burke, Lewis, Mary Shelley, Byron, Wollstonecraft, Lister, Austen, Coleridge, Keats, and Percy Shelley, with further readings in queer theory and the history of sexuality. (Same as Gay and Lesbian Studies 2351 \{236\} and Gender and Women's Studies 2234 \{234\}.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or gender and women's studies, or Gay and Lesbian Studies 2001 \{201\}.
2353 \{237\} c. Contesting the Commons. Fall 2013. David Collings.
Examines the attack on and defense of common right in the era of the Industrial Revolution in England. Discusses historical phenomena such as food riots, the enclosure of commons, the Luddite protests, the emergence of a mass radical movement, the massacre at Peterloo, and the formation of modern class relations. Focuses on radical poems by plebeians, artisans, and elite writers (Blake, Spence, Hone, Shelley, Clare), writings of the Luddites, popular radical journalism (Cobbett), and pivotal texts in the history of political and economic thought (Burke, Malthus, Marx), alongside readings in history and cultural theory.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2405 c. Victorian Plots. Spring 2014. Aviva Briefel.
Focusing primarily on the novel, this course examines Victorian narrative form. Considers whether there are certain types of plots that are peculiar to the period; the ways in which characters develop (or not) as stories unravel; and how literary elements such as description, dialogue, and setting emerge in Victorian texts. Along the way, analyzes the economic, social, and cultural factors that determine aspects of the novel. Authors may include Emily Brontë, Wilkie Collins, Charles Dickens, George Eliot, Elizabeth Gaskell, and Anthony Trollope.
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.

## $2426\{289\}$ c. The Horror Film in Context. Fall 2013. Aviva Briefel.

Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe, Romero, and Shelley. (Same as Film Studies 2426 \{287\}, Gay and Lesbian Studies 2426 \{287\}, and Gender and Women's Studies 2426 \{287\}.)

Prerequisite: One of the following: one first-year seminar or course numbered 1100-1999 \{100-199\} in English or gender and women's studies; or Film Studies 1101 \{101\}, 2201 \{201\}, or $2202\{202\}$.

2451 \{245\} c. Modernism/Modernity. Fall 2013. Marilyn Reizbaum.
Examines the cruxes of the "modern," and the term's shift into a conceptual category rather than a temporal designation. Although not confined to a particular national or generic rubric, takes British works as a focus. Organized by movements or critical formations of the modern, i.e., modernisms, psychoanalysis, postmodernism, cultural critique. Readings of critical literature in conjunction with primary texts. Authors/directors/works may include T. S. Eliot, Joyce's Dubliners, Lawrence's Sons and Lovers, Sontag's On Photography, W. G. Sebald's The Natural History of Destruction, Ian McEwen's Enduring Love, Stevie Smith, Kureishi's My Son the Fanatic, and Coetzee's Disgrace. (Same as Gay and Lesbian Studies $2451\{245\}$ and Gender and Women's Studies 2247 \{247\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English, gay and lesbian studies, or gender and women's studies.
$2453\{247\}$ c. The Irish Story. Spring 2014. Marilyn Reizbaum.
Considers Irish writing from the late nineteenth century through the present, including its contribution to modern literary movements, conflictual relation to the idea of a national Irish literature, and intersections with other Celtic literatures (Scottish). Likely topics include linguistic and national dispossession; the supernatural or surreal, pastoral, and urban traditions; the Celtic Twilight versus Modernism; and the interaction of feminism and nationalism.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English

## 2502 \{252\} c. American Intimacies: Sex and Love in Nineteenth-Century Literature.

 Spring 2014. Peter Coviello.Homosexuality and its conceptual twin, heterosexuality, are surprisingly late coinages. So what was sex like before such concepts organized the sphere of intimate life in America? Was it a set of bodily practices? An aspect of a person's identity? Was sexuality something an individual could be said to possess? What forms of contact, invest attachment, or imagination could even be counted as sex, and why? Authors may include Whitman, Thoreau, Jewett, Melville, Hawthorne, James, Douglas, Dickinson, and Joseph Smith. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Gay and Lesbian Studies $2502\{252\}$ and Gender and Women's Studies $2252\{252\}$.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2504 c. Nineteenth-Century American Fiction. Spring 2014. Tess Chakkalakal.
Historical survey of nineteenth-century American fiction, including works by Washington Irving, Catherine Sedgwick, Herman Melville, Nathaniel Hawthorne, Frank Webb, Harriet Beecher Stowe, William Wells Brown, Mark Twain, Frank Norris, Henry James, John DeForest, Edith Wharton, William Dean Howells, and Charles Chesnutt. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2504.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.

2541 \{254\} c. Twentieth-Century American Poetry. Spring 2014. Celeste Goodridge.
Readings of contemporary poetic projects with an emphasis on different modes of poetic influence, the role of high and low culture in these canons and the role of narrative, biography, mythology, and performativity. Poets may include Philip Levine, Mark Doty, Louise Gluck, Laurie Scheck, and Amy Clampitt.
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2570 \{250\} c - ESD. The Making of a Race: Latino Fictions. Fall 2013. Nadia V. Celis.
Explores the creation, representation, and marketing of U.S. Latino/a identities in American literature and popular culture from the 1960s. Focuses on the experience of artists and writers of Puerto Rican, Cuban, and Dominican origin; their negotiations with notions of race, class, gender, and sexuality in the United States; and their role in the struggle for social rights, in cultural translation, and in the marketing of ethnic identities, as portrayed in a variety of works ranging from movies and songs to poetry and narrative. Authors include Pietri, Blades, Álvarez, Hijuelos, Braschi, Ovejas, Díaz, and Quiñones. Readings and writing in English, discussions in Spanish. Spanish speaking skills required. (Same as Latin American Studies 2005 \{250\} and Spanish 2505 \{250\}.)
2571 \{221\} c - ESD. The Making of a Race: Latino Fictions. Fall 2013. Nadia V. Celis.
Explores the creation, representation, and marketing of U.S. Latino/a identities in American literature and popular culture from the 1960s. Focuses on the experience of artists and writers of Puerto Rican, Cuban, and Dominican origin; their negotiations with notions of race, class, gender, and sexuality in the United States; and their role in the struggle for social rights, in cultural translation, and in the marketing of ethnic identities, as portrayed in a variety of works ranging from movies and songs to poetry and narrative. Authors include Pietri, Blades, Álvarez, Hijuelos, Braschi, Ovejas, Díaz, and Quiñones. Readings in English, discussions and writing in Spanish. (Same as Latin American Studies 3005 \{305\} and Spanish 3005 \{305\}.)

Prerequisite: Spanish 2409 \{209\} (same as Latin American Studies 2409 \{209\}) or $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ).

2580 \{258\} c-ESD. Reconstructing the Nation. Fall 2014. Tess Chakkalakal.
Introduces students to American literature written between 1865 and 1910. Exploring a period marked by the end of the Civil War, Reconstruction, the "New" South, and Jim Crow, students engage with these historical developments through a reading of a wide range of novels, short stories, poems, and plays that take up political tensions between the North and South as well as questions of regional, racial, and national identity. Focuses on works by George Washington Cable, Charles Chesnutt, Lydia Maria Child, Sarah Orne Jewett, Mark Twain, Sutton E. Griggs, Emily Dickinson, Paul Laurence Dunbar, Henry James, Theodore Dreiser, and Frank Norris that constitute the "major" literary voices of the period; but also examines a number of "minor" works that are similarly, but perhaps more narrowly, concerned with questions of race and nation. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies $2580\{258\}$.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.

2583 \{264\} c. Literature of the Civil War Era. Spring 2015. Tess Chakkalakal.
Examines literature published in the United States between 1861 and 1865, with particular emphasis on the wartime writings of Louisa May Alcott, William Wells Brown, Frederick

Douglass, William Gilmore Simms, Herman Melville, and Walt Whitman. Students also consider writings of less well-known writers of the period found in popular magazines such as Harper's Monthly, The Atlantic Monthy, The Southern Illustrated News, and Frank Leslie's Illustrated Newspaper. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2583 \{283\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2584 c. The Afterlives of Uncle Tom. Spring 2014. Tess Chakkalakal and Peter Coviello.
Considers the intertwined fates of slavery and sentiment in the lead-up to, and the years following, the Civil War. At its center is Harriet Beecher Stowe's 1852 Uncle Tom's Cabin. Tracks the ramifying effects of this antebellum mega-bestseller in such disparate realms as literary and print culture, political counter-publics, and law. Explores in particular how responses to the novel in Southern, British, and African-American literary discourses ring complex changes on the major tropes of Stowe's novel, and on the received wisdom about Uncle Tom that persists into today. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2584.)
2603 \{270\} c - ESD. African American Fiction: Humor and Resistance. Fall 2013. Elizabeth Muther.

Explores rich traditions of African American humor in fiction, comics, graphic narratives, and film. Considers strategies of cultural survival and liberation, as well as folkloric sources, trickster storytellers, comic double-voicing, and the lampooning of racial ideologies. Close attention paid to modes of burlesque, satirical deformation, caricature, tragicomedy, and parody in historical and contemporary contexts, including such writers and performers as Charles Chesnutt, Bert Williams, Langston Hughes, Zora Neale Hurston, Richard Pryor, Ishmael Reed, Aaron McGruder, Dave Chappelle, and Suzan-Lori Parks. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2603 \{270\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.

2651 \{276\} c - ESD. Queer Race. Fall 2013. Guy Mark Foster.
How does the concept of "queerness" signify in cultural texts that are ostensibly about the struggle for racial equality? And vice versa, how does the concept of "racialization" signify in cultural texts that are ostensibly about the struggle for LGBT recognition and justice? While some of this work tends to reduce "queer" to traditional sexual minorities like lesbigay and trans folk while downplaying racial considerations, others tend to limit the category "race" to people of color like blacks while downplaying questions about sexuality. Such critical and creative gestures often place "queer" and "race" in opposition rather than as intersecting phenomena. Students examine the theoretical and cultural assumptions of such gestures, and their implications, through close readings of selected works in both the LGBT and African American literary traditions. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2651 \{276\} and Gay and Lesbian Studies 2651 \{276\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English, Africana studies, or gay and lesbian studies.

2654 \{263\} c. Staging Blackness. Spring 2014. Guy Mark Foster.
Examines the history and contributions of African Americans to United States theater from the early blackface minstrel tradition, to the revolutionary theater of the Black Arts
writers, to more recent postmodernist stage spectacles. Among other concerns, such works often dramatize the efforts of African Americans to negotiate ongoing tensions between individual needs and group demands that result from historically changing forms of racial marginalization. Highlights in particular what Kimberly Benston has termed the "expressive agency" with which black writers and performers have imbued their theatrical presentations. Potential authors studied include: Zora Neale Hurston, Langston Hughes, Lorraine Hansberry, Amiri Baraka, Ron Milner, Adrienne Kennedy, Ntozake Shange, George C. Wolfe, Anna Deavere Smith, Afro Porno Homos, and August Wilson. (Same as Africana Studies 2630 \{263\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or Africana studies.

2700 \{280\} c - ESD, IP. The Animal and the Human. Fall 2013. Hilary Thompson.
Considers the changing philosophical and political significance of representations of the animal and of human/animal interactions in modern and contemporary literature. Focuses on global fiction and investigates the role of the animal in the theories and philosophies of psychoanalysis, biopolitics, shamanism, and animism.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2701 \{285\} c - ESD, IP. Global Fiction and "The Great Game." Spring 2014. Hilary Thompson.

Examines recent Anglophone global fiction's return to the "Great Game" metaphororiginally referring to Britain and Russia's 1813-1907 imperial rivalry over central Asia-now revived in contemporary works that, playing off past genres of espionage and adventure, figure global politics as a competitive game and imagine its space as a playing field. Considers the effects of colonialism, globalization, and $9 / 11$ on this literature as well as, conversely, this literature's influence on our perceptions of global politics. Authors may include Rushdie, Ghosh, Aslam, Khan, Farrell, Ondaatje, Hanif, and Shamsie.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2757 \{275\} - ESD. Asian America: History, Society, Literature. Fall 2013. Connie Chiang, Belinda Kong, and Nancy Riley.

Focuses on Asian American experiences from an interdisciplinary perspective, including history, English, Asian studies, and sociology. Examines major issues in the experience of Asian Americans including immigration, the politics of racial/ethnic formation and identity, the political and economic forces that have shaped the lives of Asians in the United States, historical experiences and influences on today's situation, and ways that Asian Americans have resisted and accommodated these influences. Uses a variety of lenses to gain critical perspective, including history, social relations and practices, and cultural production. (Same as Asian Studies $2805\{251\}$, History $2162\{268\}$, and Sociology 2266 \{266\}.)

2758 c - ESD. New Fictions of Asian America. Spring 2014. Belinda Kong.
Surveys developments in Asian American literature since 2000, and asks how post-millennial fictions revise and extend the core concerns of earlier writing. If Asian American writers have long been preoccupied with questions of ethnic identity and national belonging, recent works tackle these themes within new contexts of transnationalism, the post- $9 / 11$ security state, and the global financial crisis. Considers the diverse functions of the contemporary Asian American novel—as autobiography and narrative of racial passing, as social satire and
tragicomedy, and as cultural memory and multiracial national history. (Same as Asian Studies 2806.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or one course in Asian studies.

2841 \{282\} c. Introduction to Literary and Cultural Theory. Spring 2014. Aaron Kitch.
Explores some of the most important and compelling schools of literary and cultural theory from the past two centuries as they have defined modern and postmodern intellectual life. Situates critical movements such as psychoanalysis, feminism, structuralism, deconstruction, race theory, and cultural studies in their historical and intellectual context while examining both textual and non-textual case studies. Students will develop research projects based on our readings but tailored to their own interests and knowledge. Authors include Marx, Freud, Adorno, Benjamin, Lacan, Foucault, Jameson, Eagleton, Butler, Sedgwick, and Žižek.

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English, Africana studies, or gender and women's studies; or Gay and Lesbian Studies 2001 \{201\}.
$2850\{214\}$ c - VPA. Playwriting. Fall 2015. The Department of Theater and Dance.
A writing workshop for contemporary performance that includes introductory exercises in writing dialogue, scenes, and solo performance texts, then moves to the writing (and rewriting) of a short play. Students read plays and performance scripts, considering how writers use image, action, speech, and silence; how they structure plays and performance pieces; and how they approach character and plot. (Same as Theater 2401 \{260\}.)

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater or dance, or permission of the instructor.

2970-2973 \{291-294\} c. Intermediate Independent Study in English. The Department.
2999 \{299\} c. Intermediate Collaborative Study in English. The Department.

## Advanced Seminars in English and American Literature 3000-3999 \{300-350\}. Advanced Literary Study.

English courses (numbered 3000-3999 \{300-399\}) are advanced seminars. Students who take them are normally English majors and are strongly encouraged to take one intermediate seminar (at the $2000\{200\}$ level) before registering for these courses. Their content and perspective varies-the emphasis may be thematic, historical, generic, biographical, etc. All require extensive reading in primary and collateral materials.

3019 \{339\} c. The End of Blackness? Fall 2013. Guy Mark Foster.
Seminar. What makes a work of literature "black"? Is it the fact that its author can be clearly identified in racial terms, its subject matter, or its main characters? What if only one of these things can be determined, but not the others? How have the passing of Jim Crow segregation, the election of the first African American president, and changing racial norms impacted the coherence and legibility of the African American literary tradition? Students engage scholarly debates on these matters, as well as analyze past and present works of literature that aid us in examining some of the key assumptions that have (re)defined the field, including questions of literary mode, genre, and style. Possible authors include Toni Morrison, Percival Everett, Colson Whitehead, Debra Dickerson, among others. (Same as Africana Studies 3019 \{339\}.)

Prerequisite: One course numbered 2000-2969 \{200-289\} in English or Africana studies, or permission of the instructor.
$3020\{370\}$ c. Jane Austen and Company. Fall 2013. Ann Kibbie.
Seminar. Examines Austen's major works, from Northanger Abbey to Persuasion, by pairing each novel either with a work by one of her major literary influences (such as Frances Burney's Evelina and Ann Radcliffe's The Romance of the Forest), or with a later work (such as Charlotte Brontë's Jane Eyre) that responds to and challenges Austen's own novelistic practice. Will also examine major currents in Austen criticism. (Same as Gender and Women's Studies 3019 \{370\}.)
Prerequisite: One course numbered 2000-2969 \{200-289\} in English or permission of the instructor.

3021 c. Tatalitarianism and Dissidence in Contemporary Chinese Literature. Spring 2014. Belinda Kong.
Seminar. Can "literature" be produced within a totalitarian regime where public expression is tightly controlled by the state? Or does political repression ironically foster creative means of literary circumvention? These are some central questions raised by the controversial awarding of the 2012 Nobel Prize in Literature to Mo Yan. Focusing on contemporary China as a case study, explores the relation between aesthetics and politics via a range of writers, from establishment novelists to dissidents in exile to Internet activists. Authors may include Mo Yan, Su Tong, Yu Hua, Liu Xiaobo, Liao Yiwu, Yan Lianke, Ai Weiwei, and Han Han. Theoretical reference points may include Lukacs, Arendt, Mao, Boym, Barme, and Evasdottir. (Same as Asian Studies 3051.)

Prerequisite: One course numbered 2000-2969 \{200-289\} in English or Asian studies, or permission of the instructor.
3022 c. The Arts of Science in the English Renaissance. Spring 2014. Aaron Kitch.
Seminar. Examines the convergence of new modes of scientific knowledge and new genres of fiction in the period between 1500 and 1650, when writers such as Philip Sidney, William Shakespeare, and Margaret Cavendish redefined imaginative literature as a tool of scientific inquiry. Topics include utopian technologies, alchemy and sexuality, natural philosophy, and the science of humanism. Authors (in addition to those mentioned above) include Thomas More, Christopher Marlowe, John Donne, and Ben Jonson. Secondary readings feature Francis Bacon, Bruno Latour, Steven Shapin, Bruce Moran, and Elizabeth Spiller, among others. Note: This course fulfills the pre-1800 literature requirement for English majors.
Prerequisite: One course numbered 2000-2969 \{200-289\} in English or permission of the instructor.

4000-4003 \{401-404\} c. Advanced Independent Study in English. The Department.
4029 \{405\} c. Advanced Collaborative Study in English. The Department.
4050-4051 c. Honors Project in English. The Department.

# Environmental Studies 

John Lichter, Program Director<br>Eileen Sylvan Johnson, Program Manager, Rosemary Armstrong, Program Assistant<br>Professors: John Lichter (Biology), Dharni Vasudevan $\dagger$ (Chemistry)<br>Associate Professors: Philip Camill (Earth and Oceanographic Science), Connie Y. Chiang (History), Matthew W. Klingle (History), Lawrence H. Simon (Philosophy)<br>Senior Lecturer: Jill E. Pearlman $\dagger$<br>Lecturers: DeWitt John (Government), Eileen Sylvan Johnson, Conrad Schneider<br>Contributing Faculty: Mark O. Battle, David Carlon, David Collings, Vladimir Douhovnikoff, Damon P. Gannon, Shaun Golding, Natasha Goldman, David R. Griffith, Laura A. Henry, Guillermo Herrera, Amy S. Johnson, Susan A. Kaplan, Michèle G. LaVigne, Peter D. Lea, Barry Logan, Sarah F. McMahon, Casey Meehan, Erik Nelsont, Emily Peterman, Nancy E. Riley, Collin Roesler, Allen L. Springer, Samuel Taylor, Anthony Walton, Allen Wells, Nathaniel T. Wheelwright $\dagger$, Enrique Yepes, Mary Lou Zeeman $\dagger$

## Requirements for the Coordinate Major in Environmental Studies (ES)

Among Bowdoin's major programs, the coordinate major is unique to the Environmental Studies Program. To receive a major in environmental studies, a student must also have a disciplinary major, either in a departmental major such as biology, economics, history, etc., or in a program major such as Asian studies, gender and women's studies, etc. Courses taken to satisfy the College's distribution requirements or to fulfill the requirements of the second major may be double-counted toward the environmental studies major requirements, except as noted. A grade of C - or better must be earned in a course to fulfill the major requirement.

Completion of the ES major requires the following courses:

1. Introductory, interdisciplinary course: ES 1101 \{101\} Introduction to Environmental Studies, preferably taken as a first-year student.
2. One introductory course (numbered $1100\{100\}$ or higher) in biology, chemistry, earth and oceanographic science, or physics.
3. One environmental science course: ES 2201 \{201\} Perspectives in Environmental Science (same as Biology 1158 \{158\} and Chemistry 1105 \{105\}).
4. One environmental social science course chosen from ES courses numbered 2300-2330. Please check the Environmental Studies Program website for current courses satisfying this requirement.
5. One environmental humanities course: ES 2403 \{203\} Environment and Culture in North American History (same as History $2182\{242\}$ ).
6. One senior seminar chosen from ES courses numbered 3900-3999: A culminating course that provides an opportunity for exploration of a topic or a senior capstone course experience of one semester is required of majors. Such courses are multidisciplinary, studying a topic from at least two areas of the curriculum. It is preferable to take this course during the senior year. Please check the Environmental Studies Program website for an updated list of courses satisfying this requirement.
7. Beyond the core courses, students must choose a concentration (listed below):

ES Disciplinary Concentrations: For this option, ES coordinate majors must take three introductory courses (numbered $1100\{100\}$ ) or above within one of the following concentrations:
-for History, Landscape, Values, Ethics, and the Environment, students choose from ES humanities courses designated with a "c"
-for Environmental Economics and Policy, students choose ES social science courses designated with a "b"
-for the Interdisciplinary Environmental Science Concentration, students choose ES natural science courses designated with an "a" (in addition, Chemistry $2100\{210\}$ Chemical Analysis and Chemistry $2400\{240\}$ Inorganic Chemistry count toward this concentration). ES majors are strongly advised to take one of the ES science courses outside of their departmental requirements. ES science majors should consult with their ES science advisor in identifying a science course outside their major.

Student-designed Environmental Studies Concentration: Students majoring in ES have the option of designing their own concentration consisting of three courses in addition to the core courses and senior seminar. Student-designed concentrations are particularly appropriate for students interested in exploring environmental issues from a cross-divisional perspective. Students must submit a self-designed concentration form (available from the program), explaining their plan of study to the program director by the first week of the first semester of the junior year, listing the three ES courses proposed, and explaining how the courses are related to the issue of interest to the student. Proposals must be approved by the program director.

## Requirements for the Minor in Environmental Studies

The minor consists of five courses: Environmental Studies $1101\{101\}$; two intermediate courses (numbered 2000-2969 \{200-289\}) or higher, one of which should be outside a student's departmental major; and two core courses in the disciplinary area as specified below. Courses taken to satisfy the College's distribution requirements or to fulfill the requirements of the second major may be double-counted toward the environmental studies minor requirements, except as noted. A grade of C - or better must be earned in a course to fulfill the minor requirement.
—for natural science majors: ES 2403 \{203\} Environment and Culture in North American History (same as History $2182\{242\}$ ) and one social science course from ES courses numbered 2300-2330.
—for social science majors: ES $2201\{201\}$ Perspectives in Environmental Science (same as Biology $1158\{158\}$ and Chemistry $1105\{105\}$ ) and ES $2403\{203\}$ Environment and Culture in North American History (same as History 2182 \{242\}).
—for humanities majors: ES 2201 \{201\} Perspectives in Environmental Science (same as Biology $1158\{158\}$ and Chemistry $1105\{105\}$ ), and one social science course from ES courses numbered 2300-2330.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
[1012 \{12\} c. Campus: Architecture and Education in the American College, 1800-2000.]
$1015\{15\}$ c. Frontier Crossings: The Western Experience in American History. Spring 2014. Matthew Klingle. (Same as History 1020 \{15\}.)

## Introductory, Intermediate, and Advanced Courses

1056 \{56\} a - INS. Ecology and Society. Spring 2015. Vladimir Douhovnikoff.
Presents an overview of ecology covering basic ecological principles and the relationship between human activity and the ecosystems that support us. Examines how ecological processes, both biotic (living) and abiotic (non-living), influence the life history of individuals, populations, communities, and ecosystems. Encourages student investigation of environmental interactions and how human-influenced disturbance is shaping the environment. Required field trips illustrate the use of ecological concepts as tools for interpreting local natural history. (Same as Biology 1056 \{56\}.)

1081 \{81\} a - INS. Physics of the Environment. Every other spring. Spring 2014. Mark Battle.

An introduction to the physics of environmental issues, including past climates, anthropogenic climate change, ozone destruction, and energy production and efficiency. (Same as Physics 1081 \{81\}.)]
$1090\{90\}$ a - INS. Understanding Climate Change. Fall 2013. David Carlon.
Why is the global climate changing and how will biological systems respond? Includes sections on climate systems and climate change, reconstructing ancient climates and past biological responses, predicting future climates and biological responses, climate policy, the energy crisis, and potential solutions. Includes a few field trips and laboratories designed to illustrate approaches to climate change science at the cellular, physiological, and ecological levels. (Same as Biology 1090 \{90\}.)
1101 \{101\}. Introduction to Environmental Studies. Every fall. DeWitt John, John Lichter, and Lawrence Simon.

An interdisciplinary introduction from the perspectives of the natural sciences, the social sciences, and moral philosophy to the variety of environmental problems confronting us today. Provides an overview of the state of scientific knowledge about major environmental problems, both global and regional, an analysis of the ethical problems they pose, potential responses of governments and individuals, and an exploration of both the successes and the inadequacies of environmental policy. Topics include air pollution, fisheries, and biodiversity and ecosystems as well as global population, climate change, energy, and sustainability.

1102 \{102\} a - INS. Oceanography. Every spring. Spring 2014. Collin Roesler. Spring 2015. Michèle LaVigne.

The fundamentals of geological, physical, chemical, and biological oceanography. Topics include tectonic evolution of the ocean basins; deep sea sedimentation as a record of ocean history; global ocean circulation, waves, and tides; chemical cycles; ocean ecosystems and productivity; and the oceans' role in climate change. Weekly labs and fieldwork demonstrate these principles in the setting of Casco Bay and the Gulf of Maine. Students complete a fieldbased research project on coastal oceanography. (Same as Earth and Oceanographic Science 1505 \{102\}.)
$1104\{104\}$ a - MCSR, INS. Environmental Geology and Hydrology. Every spring. Spring 2014. Peter Lea.

An introduction to aspects of geology and hydrology that affect the environment and land use. Topics include lakes, watersheds and surface-water quality, groundwater contamination, coastal erosion, and landslides. Weekly labs and field trips examine local environmental problems affecting Maine's rivers, lakes, and coast. Students complete a community-based research project on Maine water quality. (Same as Earth and Oceanographic Science 1305 \{104\}.)
[1154 \{154\} a - INS. Ecology of the Gulf of Maine and Bay of Fundy. (Same as Biology $1154\{154\}$. .]

2004 \{204\} a. Introduction to Geographic Information Systems. Every year. Fall 2013. Eileen Johnson.

Geographical information systems (GIS) organize and store spatial information for geographical presentation and analysis. They allow rapid development of high-quality maps, and enable powerful and sophisticated investigation of spatial patterns and interrelationships. Introduces concepts of cartography, database management, remote sensing, and spatial analysis. The productive use of GIS technology in the physical and social sciences, environmental management, and regional planning is investigated through a variety of applied exercises and problems culminating in a semester project that addresses a specific environmental application.
2083 \{283\} c. Environmental Education. Fall 2014. The Program.
Examines the role of environmental education within environmental studies while providing students with the opportunity to gain hands-on experience within a local elementary school. Students read, research, analyze, discuss, and write about theoretical essays, articles, and books from the field of environmental education, in addition to theoretical material on pedagogy and lesson plans. Topics include ecological literacy, the historical roots of environmental education, globalization, sustainable education, and policy implications of environmental education. In addition, students teach at least one hour weekly. Students develop lesson plans and reflect on their experience of teaching environmental education lessons.
Prerequisite: Environmental Studies 1101 \{101\}.
2201 \{201\} a - MCSR, INS. Perspectives in Environmental Science. Every spring. Spring 2014. David R. Griffith and John Lichter.

Functioning of the earth system is defined by the complex and fascinating interaction of processes within and between four principal spheres: land, air, water, and life. Leverages key principles of environmental chemistry and ecology to unravel the intricate connectedness of natural phenomena and ecosystem function. Fundamental biological and chemical concepts are used to understand the science behind the environmental dilemmas facing societies as a consequence of human activities. Laboratory sessions consist of local field trips, laboratory experiments, group research, case study exercises, and discussions of current and classic scientific literature. (Same as Biology 1158 \{158\} and Chemistry 1105 \{105\}.)

Prerequisite: One course numbered $1100\{100\}$ or higher in biology, chemistry, earth and oceanographic science, or physics.
$2221\{200\}$ a. Biogeochemistry: An Analysis of Global Change. Every fall. Fall 2013. Philip Camill.

Understanding global change requires knowing how the biosphere, geosphere, oceans, ice, and atmosphere interact. An introduction to earth system science, emphasizing the critical interplay between the physical and living worlds. Key processes include energy flow and material cycles, soil development, primary production and decomposition, microbial ecology and nutrient transformations, and the evolution of life on geochemical cycles in deep time. Terrestrial, wetland, lake, river, estuary, and marine systems are analyzed comparatively. Applied issues are emphasized as case studies, including energy efficiency of food production, acid rain impacts on forests and aquatic systems, forest clearcutting, wetland delineation, eutrophication of coastal estuaries, ocean fertilization, and global carbon sinks. Lectures and three hours of laboratory or fieldwork per week. (Same as Earth and Oceanographic Science 2005 \{200\}.)

Prerequisite: One course numbered 1100-1999 \{101-105\} in earth and oceanographic science; or Biology $1102\{102\}$ or $1109\{109\}$; or Chemistry $1102\{102\}$ or $1109\{109\}$; or Environmental Studies $1102\{102\}, 1104$ \{104\} or $1515\{105\}$.

2223 \{210\} a - MCSR, INS. Plant Physiology. Fall 2013. Samuel H. Taylor.
An introduction to the physiological processes that enable plants to grow under the varied conditions found in nature. General topics discussed include the acquisition, transport, and use of water and mineral nutrients; photosynthetic carbon assimilation; and the influence of environmental and hormonal signals on development and morphology. Adaptation and acclimation to extreme environments and other ecophysiological subjects are also discussed. Weekly laboratories reinforce principles discussed in lecture and expose students to modern research techniques. (Same as Biology $2210\{210\}$.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2224 \{215\} a - MCSR, INS. Behavioral Ecology and Population Biology. Fall 2014. Nathaniel T. Wheelwright.
Study of the behavior of animals and plants, and the interactions between organisms and their environment. Topics include population growth and structure, and the influence of competition, predation, and other factors on the behavior, abundance, and distribution of plants and animals. Laboratory sessions, field trips, and research projects emphasize concepts in ecology, evolution and behavior, research techniques, and the natural history of local plants and animals. Optional field trip to the Bowdoin Scientific Station on Kent Island. (Same as Biology 2315 \{215\}.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.

2225 \{225\} a - MCSR, INS. Biodiversity and Conservation Science. Fall 2013. John Lichter.
People rely on nature for food, materials, medicines, and recreation; yet the fate of Earth's biodiversity is rarely given priority among the many pressing problems facing humanity today. Explores the interactions within and among populations of plants, animals, and microorganisms, and the mechanisms by which those interactions are regulated by the physical and chemical environment. Major themes are biodiversity and the processes that maintain biodiversity, the relationship between biodiversity and ecosystem function, and the science underlying conservation efforts. Laboratory sessions consist of student research, local field
trips, laboratory exercises, and discussions of current and classic ecological literature. (Same as Biology 2325 \{225\}.)

Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher; or Environmental Studies 2201 \{201\} (same as Biology 1158 \{158\} and Chemistry $1105\{105\}$ ).

2229 \{219\} a - MCSR, INS. Biology of Marine Organisms. Fall 2013. Amy Johnson.
The study of the biology and ecology of marine mammals, seabirds, fish, intertidal and subtidal invertebrates, algae, and plankton. Also considers the biogeographic consequences of global and local ocean currents on the evolution and ecology of marine organisms. Laboratories, field trips, and research projects emphasize natural history, functional morphology, and ecology. Lectures and four hours of laboratory or field trip per week. One weekend field trip included. (Same as Biology 2319 \{219\}.)
Prerequisite: Biology $1102\{102\}, 1109\{109\}$, or $2100\{210\}$ or higher, or placement in biology at the 2000 level.
$2250\{205\}$ a - INS. Earth, Ocean, and Society. Every spring. Spring 2014. Emily Peterman.
Explores the historical, current, and future demands of society on the natural resources of the earth and the ocean. Discusses the formation and extraction of salt, gold, diamonds, rare earth elements, coal, oil, natural gas, and renewable energies (e.g., tidal, geothermal, solar, wind). Examines how policies for these resources are written and revised to reflect changing societal values. Students complete a research project that explores the intersection of natural resources and society. (Same as Earth and Oceanographic Science 2020 \{205\}.)

Prerequisite: One course numbered 1100-1999 \{101-105\} in earth and oceanographic science, or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.

2251 \{251\} a. Marine Biogeochemistry. Spring 2014. Michèle LaVigne.
Oceanic cycles of carbon, oxygen, and nutrients play a key role in linking global climate change, marine primary productivity, and ocean acidification. Fundamental concepts of marine biogeochemistry used to assess potential consequences of future climate scenarios on chemical cycling in the ocean. Past climate transitions evaluated as potential analogs for future change using select case studies of published paleoceanographic proxy records derived from corals, ice cores, and deep-sea sediments. Weekly laboratory sections and student research projects focus on creating and interpreting new geochemical paleoclimate records from marine archives and predicting future impacts of climate change and ocean acidification on marine calcifiers. (Same as Earth and Oceanographic Science 2525 \{252\}.)

Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Environmental Studies $1102\{102\}, 1104$ \{104\}, or $1515\{105\}$; and Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 \{200\}).

2253 \{253\} a. Atmosphere and Ocean Dynamics. Fall 2013. Mark O. Battle.
A mathematically rigorous analysis of the motions of the atmosphere and oceans on a variety of spatial and temporal scales. Covers fluid dynamics in inertial and rotating reference frames, as well as global and local energy balance, applied to the coupled ocean-atmosphere system. (Same as Earth and Oceanographic Studies 2810 \{257\} and Physics 2810 \{257\}.)

Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
$2255\{211\}$ a - INS. Environmental Chemistry. Spring 2014. David R. Griffith.
Focuses on two key processes that influence human and wildlife exposure to potentially harmful substances-chemical speciation and transformation. Equilibrium principles as applied to acid-base, complexation, precipitation, and dissolution reactions are used to explore organic and inorganic compound speciation in natural and polluted waters; quantitative approaches are emphasized. Weekly laboratory sections are concerned with the detection and quantification of organic and inorganic compounds in air, water, and soils/sediments. (Same as Chemistry $2050\{205\}$ and Earth and Oceanographic Science 2325 \{206\}.)
Prerequisite: Chemistry $1109\{109\}$, placement in chemistry at the 2000 level, or a course numbered 2000-2969 \{200-289\} in chemistry.

## 2270 \{270\} a. Landscapes and Global Change. Spring 2015. Peter Lea.

The earth's surface is marked by the interactions of the atmosphere, water and ice, biota, tectonics, and underlying rock and soil. Even familiar landscapes beget questions on how they formed, how they might change, and how they relate to patterns at both larger and smaller scales. Examines Earth's landscapes and the processes that shape them, with particular emphasis on how future changes may both influence and be influenced by humans. Topics include specific land-shaping agents (rivers, glaciers, landslides, groundwater), as well as how these agents interact with one another and with changing climate, tectonics, and human activities. (Same as Earth and Oceanographic Science 2345 \{270\}.)

Prerequisite: One course numbered 1100-1999 \{100-105\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$, or $1515\{105\}$.
2271 \{271\} a. Biology of Marine Mammals. Fall 2014. Damon P. Gannon.
Examines the biology of cetaceans, pinnipeds, sirenians, and sea otters. Topics include diversity, evolution, morphology, physiology, ecology, behavior, and conservation. Detailed consideration given to the adaptations that allow these mammals to live in the sea. Includes lecture, discussion of primary literature, lab, field trips, and student-selected case studies. Laboratory and field exercises consider anatomy, biogeography, social organization, foraging ecology, population dynamics, bioacoustics, and management of the marine mammal species found in the Gulf of Maine. (Same as Biology 2571 \{271\}.)

Prerequisite: One of the following: Biology $1154\{154\}$ (same as Environmental Studies 1154 $\{154\}), 1158\{158\}$ (same as Chemistry $1105\{105\}$ and Environmental Studies 2201 \{201\}), $2315\{215\}$ (same as Environmental Studies $2224\{215\}$ ), $2316\{216\}, 2319\{219\}$ (same as Environmental Studies 2229 \{219\}), or $2325\{225\}$ (same as Environmental Studies 2225 \{225\}).
2274 \{274\} a - MCSR, INS. Marine Conservation Biology. Fall 2013. Damon P. Gannon.
Introduces key biological concepts that are essential for understanding conservation issues. Explores biodiversity in the world's major marine ecosystems; the mechanisms of biodiversity loss at the genetic, species, and ecosystem levels; and the properties of marine systems that pose unique conservation challenges. Investigates the theory and practice of marine biodiversity conservation, focusing on the interactions among ecology, economics, and public policy. Consists of lecture/discussion, lab, field trips, guest seminars by professionals working in the field, and student-selected case studies. (Same as Biology 2574 \{274\}.)

Prerequisite: One of the following: Biology $1154\{154\}$ (same as Environmental Studies $1154\{154\}$ ), $2315\{215\}$ (same as Environmental Studies 2224 \{215\}), 2319 \{219\} (same
as Environmental Studies 2229 \{219\}), or 2325 \{225\} (same as Environmental Studies 2225 $\{225\}$ ); Environmental Studies $1101\{101\}$ or $2201\{201\}$ (same as Biology $1158\{158\}$ and Chemistry $1105\{105\}$ ); or permission of the instructor.
[2280 \{280\} a. Plant Responses to the Environment. (Same as Biology 2580 \{280\}.)]
$2281\{281\}$ a. Forest Ecology and Conservation. Fall 2014. Vladimir Douhovnikoff.
An examination of how forest ecology and the principles of silviculture inform forest ecosystem restoration and conservation. Explores ecological dynamics of forest ecosystems, the science of managing forests for tree growth and other goals, natural history and historic use of forest resources, and the state of forests today, as well as challenges and opportunities in forest restoration and conservation. Consists of lecture, discussions, field trips, and guest seminars by professionals working in the field. (Same as Biology 2581 \{281\}.)
2282 \{282\} a - MCSR, INS. Ocean and Climate. Fall 2016. Collin Roesler.
The ocean covers more than 70 percent of Earth's surface. It has a vast capacity to modulate variations in global heat and carbon dioxide, thereby regulating climate and ultimately life on Earth. Beginning with an investigation of paleoclimate records preserved in deep-sea sediment cores and in Antarctic and Greenland glacial ice cores, explores the patterns of natural climate variations with the goal of understanding historic climate change observations. Predictions of future polar glacial and sea ice, sea level, ocean temperatures, and ocean acidity investigated through readings and discussions of scientific literature. Weekly laboratory sessions devoted to field trips, laboratory experiments, and computer-based data analysis and modeling to provide hands-on experiences for understanding the time and space scales of processes governing oceans, climate, and ecosystems. Laboratory exercises form the basis for student research projects. Mathematics $1700\{171\}$ is recommended. (Same as Earth and Oceanographic Science 2585 \{282\}.)

Prerequisite: Earth and Oceanographic Science 1505 \{102\} (same as Environmental Studies $1102\{102\}$ ) or $2005\{200\}$ (same as Environmental Studies 2221 \{200\}), and Mathematics $1600\{161\}$.

2287 \{287\} a. Poles Apart: An Exploration of Earth's High Latitudes. Every other fall. Fall 2013. Collin Roesler.

The polar regions undergo extreme seasonal variations that dominate the environmental and ecological patterns. Being the coldest regions on the planet they are most sensitive to the recent warming trends induced by anthropogenic increases in atmospheric carbon dioxide. In turn the cryospheric and oceanographic responses to warming have complex feedbacks to global climate. The tectonic evolution of modern polar geography, climate, glaciers and sea ice, ocean circulation and ocean biology of the Arctic and Antarctic regions are compared and contrasted. In addition to scientific readings (textbook chapters and journal articles), students will read an array of first-hand accounts of polar exploration from the turn of the twentieth century, such as Fridjof Nansen's Farthest North, from which many important scientific discoveries were made. (Same as Earth and Oceanographic Studies 2530 \{287\}.)

Prerequisite: One course numbered 1100-1999 \{100-199\} in earth and oceanographic science or Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies 2221 $\{200\}$ ); or Environmental Studies $1102\{102\}, 1104\{104\}$ or $1515\{105\}$.
[2302 \{218\} b - MCSR. Environmental Economics and Policy. (Same as Economics 2218 \{218\}.)]
$2303\{228\}$ b - MCSR. Natural Resource Economics and Policy. Spring 2014. Guillermo Herrera.

A study of the economic issues surrounding the existence and use of renewable natural resources (e.g., forestry/land use, fisheries, water, ecosystems, and the effectiveness of antibiotics) and exhaustible resources (e.g., minerals, fossil fuels, and old growth forest). A basic framework is first developed for determining economically efficient use of resources over time, then extended to consider objectives other than efficiency, as well as the distinguishing biological, ecological, physical, political, and social attributes of each resource. Uncertainty, common property, and various regulatory instruments are discussed, as well as alternatives to government intervention and/or privatization. (Same as Economics 2228 \{228\}.)
Prerequisite: Economics $1101\{101\}$ or placement above Ecpnomics $1101\{101\}$.
$2304\{240\}$ b. Environmental Law and Policy. Fall 2013. Conrad Schneider.
Critical examination of some of the most important American environmental laws and their application to environmental problems that affect the United States and the world. Students learn what the law currently requires and how it is administered by federal and state agencies, and are encouraged to examine the effectiveness of current law and consider alternative approaches.
[2306 \{236\} b - IP. Comparative Environmental Politics. (Same as Government 2484 \{235\}.)]

2308 \{263\} b. International Environmental Policy. Fall 2013. Allen Springer.
Examines the political, legal, and institutional dimension of international efforts to protect the environment. Problems discussed include transboundary and marine pollution, maintaining biodiversity, and global climate change. (Same as Government 2615 \{263\}.)

2311 \{237\} b. Changing Cultures and Dynamic Environments. Spring 2014. Susan Kaplan.
Over the last 20,000 years, the Earth's environment has changed in both subtle and dramatic ways. Some changes are attributable to natural processes and variation, some have been triggered by human activities. Referring to anthropological and archaeological studies, and research on past and contemporary local, regional, and global environments, examines the complex and diverse relationship between cultures and the Earth's dynamic environment. A previous science course is recommended. (Same as Anthropology $2170\{270\}$.)
Prerequisite: Anthropology $1101\{101\}$ Anthropology $1050\{102\}$, or permission of the instructor.

2332 \{222\} b - ESD. Introduction to Human Population. Fall 2013. Nancy Riley.
An introduction to the major issues in the study of population. Focuses on the social aspects of the demographic processes of fertility, mortality, and migration. Also examines population change in Western Europe historically, recent demographic changes in Third World countries, population policy, and the social and environmental causes and implications of changes in births, deaths, and migration. (Same as Gender and Women's Studies $2224\{224\}$ and Sociology 2222 \{222\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.
2334 \{221\} b. Environmental Sociology. Spring 2014. Shaun Golding.
Applies sociological insights to investigating the ways that humans shape and are shaped by
their ecological surroundings. Introduces theories and concepts for exploring how western society and more specifically contemporary American society interact with nature. Reviews central academic questions, including social constructions of nature and perceptions of ecological risks, and drawing from complementary readings and student-led dialogue, examines in greater depth ongoing struggles over conservation, sustainability, development, and social justice. (Same as Sociology 2221 \{221\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.
[2340 \{234\} b - ESD. Tractors, Chainsaws, Windmills, and Cul-de-Sacs: Natural Resource-Based Development in Our Backyard. (Same as Sociology 2340 \{234\}.)]
[2369 \{269\} b - IP. Environmental Security. (Same as Government 2689 \{269\}.)]
2403 \{203\} c - ESD. Environment and Culture in North American History. Every spring. Spring 2014. Connie Chang.

Explores relationships between ideas of nature, human transformations of the environment, and the effect of the physical environment upon humans through time in North America. Topics include the "Columbian exchange" and colonialism; links between ecological change and race, class, and gender relations; the role of science and technology; literary and artistic perspectives of "nature"; agriculture, industrialization, and urbanization; and the rise of modern environmentalism. (Same as History 2182 \{242\}.)
Prerequisite: Environmental Studies $1101\{101\}$ or permission of the instructor.
2416 \{250\} c - ESD. California Dreamin': A History of the Golden State. Spring 2015. Connie Chiang.
Seminar. Sunshine, beaches, shopping malls, and movie stars are the popular stereotypes of California, but social conflicts and environmental degradation have long tarnished the state's golden image. Unravels the myth of the California dream by examining the state's social and environmental history from the end of Mexican rule and the discovery of gold in 1848 to the 2003 election of Arnold Schwarzenegger. Major topics include immigration and racial violence; radical and conservative politics; extractive and high-tech industries; environmental disasters; urban, suburban, and rural divides; and California in American popular culture. (Same as History 2640 \{250\}.)
$2425\{235\}$ c - ESD. Borderlands and Empires in Early North America. Spring 2014. Matthew Klingle.
Survey of the making of North America from initial contact between Europeans and Africans and Native Americans to the creation of the continent's three largest nations by the mid-nineteenth century: Canada, Mexico, and the United States. Topics include the history of Native populations before and after contact, geopolitical and imperial rivalries that propelled European conquests of the Americas, evolution of free and coerced labor systems, environmental transformations of the continent's diverse landscapes and peoples, formation of colonial settler societies, and the emergence of distinct national identities and cultures in former European colonies. Students write several papers and engage in weekly discussion based upon primary and secondary documents, art, literature, and material culture. (Same as History 2180 \{235\} and Latin American Studies 2180 \{236\}.)
[2427 \{227\} c - IP. City and Landscape in Modern Europe. (Same as History 2005 \{227\}.)]
[2431 \{243\} c - VPA. Modern Architecture: 1750 to 2000. (Same as Art History 2430 \{243\}.)]
$2432\{232\}$ c - ESD. History of the American West. Fall 2014. Connie Chiang.
Survey of what came to be called the Western United States from the nineteenth century to the present. Topics include Euro-American relations with Native Americans; the expansion and growth of the federal government into the West; the exploitation of natural resources; the creation of borders and national identities; race, class, and gender relations; the influence of immigration and emigration; violence and criminality; cities and suburbs; and the enduring persistence of Western myths in American culture. Students write several papers and engage in weekly discussion based upon primary and secondary documents, art, literature, and film. (Same as History $2160\{232\}$.)

2444 \{244\} c - VPA. City, Anti-City, Utopia: Building Urban America. Spring 2015. Jill Pearlman.
Explores the evolution of the American city from the beginning of industrialization to the present age of mass communications. Focuses on the underlying explanations for the American city's physical form by examining cultural values, technological advancement, aesthetic theories, and social structure. Major figures, places, and schemes in the areas of urban design and architecture, social criticism, and reform are considered. (Same as History 2006 \{244\}.)
2445 \{245\} c - VPA. The Nature of Frank Lloyd Wright. Fall 2014. Jill Pearlman.
An in-depth investigation of the buildings of North America's most celebrated architect, with emphasis on the major theme of his work-the complex relationship between architecture and nature. Examines Wright's key projects for a diverse range of environments and regions while also placing the master builder and his works into a larger historical, cultural, and architectural context. Engages in a critical analysis of the rich historical literature that Wright has evoked in recent decades, along with the prolific writings of the architect himself. Note: This course counts toward the art history requirement for the visual arts major and minor.
2447 \{247\} c. Maine: A Community and Environmental History. Spring 2014. Sarah McMahon.

Seminar. Examines the evolution of various Maine social and ecological communities-inland, hill country, and coastal. Begins with the contact of European and Native American cultures, examines the transfer of English and European agricultural traditions in the seventeenth and eighteenth centuries, and explores the development of diverse geographic, economic, ethnic, and cultural communities during the nineteenth and into the early twentieth centuries. (Same as History 2607 \{247\}.)

Prerequisite: One course in history or permission of the instructor.
2448 \{258\} c. Environmental Ethics. Spring 2015. Lawrence H. Simon.
What things in nature have moral standing? What are our obligations to them? How should we resolve conflicts among our obligations? After an introduction to ethical theory, topics include anthropocentrism, the moral status of nonhuman sentient beings and of non-sentient living beings, preservation of endangered species and the wilderness, holism versus individualism, the land ethic, and deep ecology. (Same as Philosophy 2358 \{258\}.)
$2465\{265\}$ c. Place-Based Education. Fall 2013. Casey Meehan.
One critique of $\mathrm{K}-12$ schooling is that it separates the learning happening within the school walls from the places people inhabit. Explores the prospects and challenges of connecting the natural environment and community surroundings with formal K -12 educational settings,
and investigates the historical and theoretical underpinnings of environmental education, place-based education, outdoor education, and sustainability education. Special attention given to the pedagogical dilemmas and opportunities these forms of education pose for teachers preparing students to live in a democratic society. (Same as Education 2265 \{265\}.)
Prerequisite: Education $1101\{101\}$.
[2473 \{273\} c. Drawing on Science. (Same as Visual Arts 2202 \{271\}.)]
[2480 \{248\} c - IP. Italians at Sea: Exploration, Love, and Disaster from the Mediterranean to the Seven Seas. (Same as Italian 2525 \{225\}.)]
$2485\{285\}$ c. Ecological Thought in Latin American Literature. Fall 2013. Enrique Yepes.
Explores how the radical interconnectedness postulated by ecological thinking can be read in Latin American narrative, essay, film, and poetry from the 1920s to the present. Includes a review of cultural ecology as well as an overview of environmental history and activism in the region. (Same as Latin American Studies 3245 \{345\} and Spanish 3245 \{345\}.)

Prerequisite: Two of the following: Spanish 2409 \{209\} (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.

## 2970-2973 \{291-294\}. Intermediate Independent Study in Environmental Studies.

The Program.
2999 \{299\}. Intermediate Collaborative Study in Environmental Studies. The Program.
3902 \{302\} a. Earth Climate History. Every spring. Spring 2014. Philip Camill.
The modern world is experiencing rapid climate warming and some parts extreme drought, which will have dramatic impacts on ecosystems and human societies. How do contemporary warming and aridity compare to past changes in climate over the last billion years? Are modern changes human-caused or part of the natural variability in the climate system? What effects did past changes have on global ecosystems and human societies? Students use environmental records from rocks, soils, ocean cores, ice cores, lake cores, fossil plants, and tree rings to assemble proxies of past changes in climate, atmospheric $\mathrm{CO}_{2}$, and disturbance to examine several issues: long-term carbon cycling and climate, major extinction events, the rise of C4 photosynthesis and the evolution of grazing mammals, orbital forcing and glacial cycles, glacial refugia and post-glacial species migrations, climate change and the rise and collapse of human civilizations, climate/overkill hypothesis of Pleistocene megafauna, climate variability, drought cycles, climate change impacts on disturbances (fire and hurricanes), and determining natural variability vs. human-caused climate change. (Same as Earth and Oceanographic Science 3020 \{302\}.)

Prerequisite: Earth and Oceanographic Science $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ), or permission of the instructor.

3903 \{304\} a. Advanced Environmental Chemistry. Fall 2013. David R. Griffith.
Every year, 300 million tons of synthetic organic chemicals enter natural waters. Examines the fate of organic contaminants in aquatic environments. Uses chemical structures and properties to predict contaminant partitioning, biodegradation, and transport, and to evaluate the implications for human health and aquatic ecosystems. Case studies on endocrine disrupting chemicals, oil spills, and pharmaceuticals allow critical examination of inherent tensions between compound-specific chemical analyses and toxicity bioassays, between studies of
single-compounds and complex mixtures, and between empirical and predictive approaches. (Same as Chemistry 3040 \{304\}.)

Prerequisite: Chemistry $2250\{225\}$.
[3905 \{305\} a. Environmental Fate of Organic Chemicals. (Same as Chemistry 3050 \{305\}.)]
[3906 \{306\} a. Transformation of Organic Chemicals in the Environment. (Same as Chemistry $3060\{306\}$. .)

3918 \{318\} b. Environmental and Natural Resource Economics. Fall 2014. Guillermo Herrera.

Seminar. Analysis of externalities and market failure; models of optimum control of pollution and efficient management of renewable and nonrenewable natural resources such as fisheries, forests, and minerals; governmental vs. other forms of control of common-pool resources; and benefit-cost analysis of policies, including market-based and non-market valuation. Permission of instructor required during add/drop for students who have credit for Economics $2218\{218\}$ (same as Environmental Studies $2302\{218\}$ ) or $2228\{228\}$ (same as Environmental Studies 2303 \{228\}). (Same as Economics 3518 \{318\}.)

Prerequisite: Economics $2555\{255\}$ and 2557 \{257\}.
[3920 \{320\} b. Animal Planet: Humans and Other Animals. (Same as Anthropology 3210 $\{321\}$. ]
[3921 \{321\} b. The Economics of Land Use, Ecosystem Services, and Biodiversity. (Same as Economics 3521 \{321\}.)]

3957 \{357\} a. The Physics of Climate. Every other spring. Spring 2015. Mark Battle.
A rigorous treatment of the earth's climate, based on physical principles. Topics include climate feedbacks, sensitivity to perturbations, and the connections between climate and radiative transfer, atmospheric composition, and large-scale circulation of the oceans and atmospheres. Anthropogenic climate change also studied. (Same as Earth and Oceanographic Science $3050\{357\}$ and Physics 3810 \{357\}.)

Prerequisite: One of the following: Physics $2150\{229\}, 2810\{257\}$, or $3000\{300\}$, or permission of the instructor.
[3963 \{363\} b. Advanced Seminar in International Relations: Law, Politics, and the Search for Justice. (Same as Government $3610\{363\}$.)]
3975 \{375\}. Feeding the World: The Nature and Challenges of Our Food and Agricultural Systems. Spring 2014. Philip Camill.

Although we live in a world where global food abundance is at record highs, and prices are at historic lows, our modern food system has its share of challenges. Methods of food production, marketing, distribution, and consumption have spawned waves of criticism, including concerns about farm economics, food justice, worker safety, animal welfare, famine, ecological degradation, climate change, biotechnology, and public health. In the wake of these challenges, alternative systems of food production, distribution, and consumption are beginning to emerge. An interdisciplinary exploration of three questions: How do we produce and eat food? What major social and environmental consequences have arisen from food production and consumption? What should we produce and eat? Examines the historical origins of agriculture, social and environmental problems arising from these transitions, and
social movements oriented toward making our food system more ecologically sustainable and socially just. Current or prior enrollment in Environmental Studies 2201 \{201\}, $2330\{202\}$, and $2403\{203\}$ is recommended.

Prerequisite: Environmental Studies 1101 \{101\} or permission of the instructor.
3980 \{337\} c. Nature and Health in America. Spring 2015. Matthew Klingle.
Explores relationships between humans, environment, and health in North American history from the sixteenth century to the present day. Topics may include the evolution of public health, biomedical research, and clinical practice; folk remedies and popular understandings of health; infectious and chronic diseases; links between landscape, health, and inequality; gender and reproductive health; occupational health and safety; the effects of agriculture, industrialization, and urbanization on human and ecological health; state and federal policies; and the colonial and global dimensions of public health and medicine. Students write a major research paper based on primary sources. Environmental Studies $1101\{101\}, 2403\{203\}$, and at least one history course numbered 2000-2969 \{200-289\} recommended. (Same as History 3180 \{337\}.)
3991 \{391\}. Troubled Waters: Fishing in the Gulf of Maine. Spring 2015. The Program.
Around the world and in the Gulf of Maine, overfishing, threats to habitat, and climate change are putting marine ecosystems and coastal communities under great stress. An interdisciplinary senior seminar draws on oceanography, ecology, history, economics, anthropology, and political science to explore the causes and scope of pressures on the marine environment; the potential for restoring ecosystems, fisheries, and coastal economies; political conflicts over fisheries and related issues; federal, state, and community-based approaches to managing marine ecosystems; and strategies for coping with scientific and management uncertainties.

3992 \{392\} c. Advanced Topics in Environmental Philosophy. Spring 2014. Lawrence H. Simon.

Examines philosophical, moral, political, and policy questions regarding various environmental issues. Possible topics include the ethics of climate change policy, our obligations to future generations, benefit-cost analysis vs. the precautionary principle as a decision-making instrument, and the relationship between justice and sustainability. (Same as Philosophy 3392 \{392\}.)
3994 \{394\} a. Ecological Recovery of Maine’s Coastal Ecosystems. Fall 2014. John Lichter.
Maine's coastal ecosystems once supported prodigious abundances of wildlife that supported human communities for millennia before succumbing to multiple anthropogenic stresses in the mid-twentieth century. Today, we need to understand the most pressing ecological and social constraints limiting recovery of these once vital ecosystems to achieve sustainable ecological recovery and provision of ecosystem services. Objective is to better understand the biophysical and social constraints limiting ecological recovery, and to rethink the failed management policies of the past. Students participate in a thorough review of the relevant scientific and historical literature and conduct a group study investigating some aspect of the ecology and/or the environmental history of Maine's coastal ecosystems. (Same as Biology 3394 \{394\}.)
Prerequisite: One of the following: Biology $2315\{215\}$ (same as Environmental Studies 2224 $\{215\}$ ), $2319\{219\}$ (same as Environmental Studies 2229 \{219\}), or 2325 \{225\} (same as Environmental Studies 2225 \{225\}); or Environmental Studies 2201 \{201\} (same as Biology $1158\{158\}$ and Chemistry $1105\{105\}$ ).
[ 3998 \{398\} c. The City since 1960.]
4000-4003 \{401-404\}. Advanced Independent Study in Environmental Studies. The Program.

4029 \{405\}. Advanced Collaborative Study in Environmental Studies. The Program.
4050-4051. Honors Project in Environmental Studies. The Program.
The following courses count toward the requirements of the Interdisciplinary Science Concentration, in addition to ES courses designated with an " $a$ ":

Chemistry $2100\{210\}$ a - MCSR, INS. Chemical Analysis. Every fall. Elizabeth Stemmler.
Chemistry $2400\{240\}$ a - MCSR, INS. Inorganic Chemistry. Every spring. Jeffrey K. Nagle.
Students may also choose from the following list of courses to satisfy requirements for the major in environmental studies. These courses will receive environmental studies credit with the approval of the director after consultation with the student and the instructor. It is expected that a substantial portion of the student's research efforts will focus on the environment. In addition to the courses listed below, students may discuss other possibilities with the Environmental Studies Program. For full course descriptions and prerequisites, see the appropriate department listings.
Social Sciences
Anthropology 1150 \{102\} b. Introduction to World Prehistory. Fall 2013. Scott MacEachern.

## Natural Sciences

Mathematics 2108 \{208\} a - MCSR. Biomathematics. Fall 2014. Mary Lou Zeeman. (Same as Biology 1174 \{174\}.)

Mathematics 3108 \{304 or 318\} a. Advanced Topics in Modeling. Fall 2015. Mary Lou Zeeman.

## Film Studies

Aviva Briefel, Program Director
Laurie Holland, Program Coordinator

Associate Professors: Aviva Briefel (English), Shu-chin Tsui (Asian Studies), Tricia Welsch Visiting Faculty: Sarah Childress

Film has emerged as one of the most important art forms of the modern era. Film studies at Bowdoin introduces students to the techniques, history, and literature of film in order to cultivate an understanding of both the vision and craft of film artists and the views of society and culture expressed in cinema. Bowdoin College does not offer a major in film studies.

## Requirements for the Minor in Film Studies

The minor consists of five courses, four of which must be courses offered by the Film Studies Program. One course may come from another department's offerings, and at least one course must be at the advanced level (numbered 3000-3999 \{300-399\}) or be an independent study. No more than two courses below the $2000\{200\}$ level (including Film Studies $1101\{101\}$ )
will count toward the minor. Courses that will count toward the minor must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C- or better in these courses.

## Required Courses:

Film Studies 1101 \{101\}
Film Studies 2201 \{201\} or Film Studies 2202 \{202\}. (Both 2201 and 2202 \{201 and 202\} may be counted toward the minor.)

## Pre-approved Courses outside the Film Studies Program:

A wide variety of courses available at Bowdoin may count toward a minor in film studies. Such courses must concentrate on film for the major part of their curriculum. Students wishing to have a particular course considered toward the minor should submit supporting materials from the course (such as syllabus, reading list, and assignments) to the director of the Film Studies Program. The Asian Studies Program, Gender and Women's Studies Program, and departments of Romance Languages, English, and German frequently offer courses that qualify.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
[ 1025 \{10\} c. Cultural Difference and the Crime Film.]
1043 \{23\} c. East Asian Genre Cinema: Action, Anime, and Martial Arts. Fall 2013. Shuchin Tsui. (Same as Asian Studies 1043 \{23\}.)

## Introductory, Intermediate, and Advanced Courses

$1101\{101\}$ c - VPA. Film Narrative. Every other year. Fall 2013. Sarah Childress.
An introduction to a variety of methods used to study motion pictures, with consideration given to films from different countries and time periods. Examines techniques and strategies used to construct films, including mise-en-scène, editing, sound, and the orchestration of film techniques in larger formal systems. Surveys some of the contextual factors shaping individual films and our experiences of them (including mode of production, genre, authorship, and ideology). No previous experience with film studies is required. Attendance at weekly evening screenings is required.
[1104 \{104\} c. From Page to Screen: Film Adaptation and Narrative. (Same as English 1104 \{104\}.)]
$1151\{151\}$ c - ESD. The Literary Imagination and the Holocaust. Fall 2013. Steven Cerf.
An examination of the literary treatment of the Holocaust, a period between 1933 and 1945, during which eleven million innocent people were systematically murdered by the Nazis. Four different literary genres are examined: the diary and memoir, drama, poetry, and the novel. Three basic sets of questions are raised by the course: How could such slaughter take place in the twentieth century? To what extent is literature capable of evoking this period and what different aspects of the Holocaust are stressed by the different genres? What can our study of the Holocaust teach us with regard to contemporary issues surrounding totalitarianism and racism? No knowledge of German is required. (Same as German 1151 \{151\}.)

1152 \{152\} c - IP, VPA. Berlin: Sin City, Divided City, City of the Future. Spring 2014. Jill Smith.

An examination of literary, artistic, and cinematic representations of the city of Berlin during three distinct time periods: the "Roaring '20s," the Cold War, and the post-Wall period. Explores the dramatic cultural, political, and physical transformations that Berlin underwent during the twentieth century and thereby illustrates the central role that Berlin played, and continues to play, in European history and culture, as well as in the American cultural imagination. For each time period studied, compares Anglo-American representations of Berlin with those produced by German artists and writers, and investigates how, why, and to what extent Berlin has retained its status as one of the most quintessentially modern cities in the world. No knowledge of German is required. (Same as German 1152 \{152\}.)

2201 \{201\} c - VPA. History of Film I, 1895 to 1935. Every other fall. Fall 2013. Tricia Welsch.

Examines the development of film from its origins to the American studio era. Includes early work by the Lumières, Méliès, and Porter, and continues with Griffith, Murnau, Eisenstein, Chaplin, Keaton, Stroheim, Pudovkin, Lang, Renoir, and von Sternberg. Special attention is paid to the practical and theoretical concerns over the coming of sound. Attendance at weekly evening screenings is required.
2202 \{202\} c - VPA. History of Film II, 1935 to 1975. Every other spring. Spring 2014. Tricia Welsch.

A consideration of the diverse production contexts and political circumstances influencing cinema history in the sound era. National film movements to be studied include Neorealism, the French New Wave, and the New German Cinema, as well as the coming of age of Asian and Australian film. Also explores the shift away from studio production in the United States, the major regulatory systems, and the changes in popular film genres. Attendance at weekly evening screenings is required.
[2222 \{222\} c - VPA. Images of America in Film.]
$2224\{224\}$ c - VPA. The Films of Alfred Hitchcock. Spring 2014. Tricia Welsch.
Considers the films of Alfred Hitchcock from his career in British silent cinema to the Hollywood productions of the 1970s. Examines his working methods and style of visual composition, as well as consistent themes and characterizations. Of particular interest is his adaptation of Daphne du Maurier's Rebecca as a way of exploring the tensions between literary sources and film, and between British and American production contexts. Ends with a brief look at Hitchcock's television career and his influence on recent film. Attendance at weekly evening screenings is required.
Prerequisite: One of the following: Film Studies $1101\{101\}, 2201\{201\}$, or $2202\{202\}$.
$2230\{230\}$ c - VPA. The Reality Effect: Documentary Film. Spring 2014. Sarah Childress.
Examines documentary history, theory, criticism, and practice. From the "actuality" films of the Lumière brothers to the theatrical "reality" of Errol Morris, documentaries work to persuade audiences to see the world in particular ways. Focuses on the debates that surround nonfiction narrative films, especially their contentious claims to represent reality, by examining films that work with and against notions of objectivity, subjectivity, power, knowledge, and truth. Explores the textual strategies that create documentary films' all-important "reality effect." Attendance at weekly evening screenings is required.

2248 \{248\} b. Activist Voices in India. Fall 2013. Sara Dickey.
Examines contemporary social and political activism in India. Focuses on film, essays, and fiction to investigate the ways that political messages are constructed through different media and for specific audiences. Case studies include activism concerning religious conflict, gender inequalities, gay and lesbian identities, and environmental issues. (Same as Anthropology 2647 $\{248\}$, Asian Studies $2562\{248\}$, and Gender and Women's Studies 2250 \{246\}.)
Prerequisite: Anthropology 1101 \{101\} or Sociology $1101\{101\}$, and one previous course on contemporary South Asian societies from the following: Anthropology 1138 \{138\} (same as Asian Studies 1625 \{138\}); Anthropology 2601 \{232\} (same as Asian Studies 2561 \{247\}); Anthropology 2643 \{243\} (same as Asian Studies 2560 \{232\}); Asian Studies 2501 \{289\} (same as Gender and Women’s Studies 2289 \{289\} and Religion 2289 \{289\}); History 1038 $\{26\}$ (same as Asian Studies 1035 \{26\}); History 2341 \{282\} (same as Asian Studies 2580 $\{236\}$ ); History $2342\{261\}$ (same as Asian Studies $2581\{256\}$ ); History 2343 \{263\} (same as Asian Studies $2582\{258\}$ ); History $2344\{280\}$ (same as Asian Studies $2230\{230\}$ ); History 2801 \{259\} (same as Asian Studies 2583 \{237\} and Gender and Women's Studies $2259\{259\}$ ); History $2809\{241\}$ (same as Asian Studies 2239 \{239\}); Religion 2219 \{219\} (same as Asian Studies $2550\{219\}$ ); Religion 2221 \{221\} (same as Asian Studies 2553 \{241\}); Religion 2222 \{222\} (same as Asian Studies 2554 \{242\}); Sociology 2227 \{227\} (same as Africana Studies 2227 \{227\} and Asian Studies $2840\{263\}$ ); Sociology $2236\{236\}$ (same as Asian Studies $2570\{233\}$ ); or permission of the instructor.

2254 \{254\} c - IP, VPA. Transnational Chinese Cinema. Fall 2014. Shu-chin Tsui.
Introduces students to films produced in the People's Republic of China, Taiwan, and Hong Kong. Places national cinema in a transnational framework and explores how cinema as a sign system constructs sociocultural and aesthetic meanings. Students will benefit most by bringing both an open mind toward non-Western cultural texts, and a critical eye for visual art. (Same as Asian Studies 2072 \{254\}.)
2266 \{266\} c - IP. Chinese Women in Fiction and Film. Spring 2015. Shu-chin Tsui.
Approaches the subject of women and writing in twentieth- and early twenty-first-century China from perspectives of gender studies, literary analysis, and visual representations. Considers women writers, filmmakers, and their works in the context of China's socialpolitical history as well as its literary and visual traditions. Focuses on how women writers and directors negotiate gender identity against social-cultural norms. Also constructs a dialogue between Chinese women's works and Western feminist assumptions. (Same as Asian Studies 2073 \{266\} and Gender and Women's Studies 2266 \{266\}.)
[2350 \{235\} b - ESD. Not Just Cowboys and Indians: Examining Native Americans in Film and Media Beyond Hollywood. (Same as Anthropology 2350 \{235\}.)]
$2426\{287\}$ c. The Horror Film in Context. Fall 2013. Aviva Briefel.
Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe,

Romero, and Shelley. (Same as English 2426 \{289\}, Gay and Lesbian Studies 2426 \{287\}, and Gender and Women's Studies 2426 \{287\}.)

Prerequisite: One of the following: one first-year seminar or course numbered 1100-1999 $\{100-199\}$ in English or gender and women's studies; or Film Studies 1101 \{101\}, 2201 $\{201\}$, or $2202\{202\}$.
2553 c. Italy's Cinema of Social Engagement. Spring 2014. Allison Cooper.
An introduction to Italian cinema with an emphasis on Neorealism and its relationship to other genres, including Comedy Italian Style, the Spaghetti Western, the horror film, the "mondo" (shock documentary), and mafia movies, among others. Readings and discussions situate films within their social and historical contexts, and explore contemporary critical debates about the place of radical politics in Italian cinema (a hallmark of Neorealism), the division between art films and popular cinema, and the relevance of the concept of an Italian national cinema in an increasingly globalized world. No prerequisite required. Taught in English (films screened in Italian with English subtitles). (Same as Italian 2553.)
2970-2973 \{291-294\} c. Intermediate Independent Study in Film Studies. The Program. 2999 \{299\} c. Intermediate Collaborative Study in Film Studies. The Program.
[ $3310\{310\}$ c. Gay and Lesbian Cinema. (Same as Gay and Lesbian Studies $3310\{310\}$ and Gender and Women's Studies 3310 \{310\}.)]
[ 3317 \{317\} c. Almodóvar, Before and After: Reading Spanish Film.]
3321 \{321\} c. German Expressionism and Its Legacy. Fall 2013. Tricia Welsch.
Considers the flowering of German cinema during the Weimar Republic and its enormous impact on American film. Examines work produced in Germany from 1919 to 1933, the films made by German expatriates in Hollywood after Hitler's rise to power, and the wide influence of the expressionist tradition in the following decades. Attendance at weekly evening screenings is required.
Prerequisite: One of the following: Film Studies $1101\{101\}, 2201\{201\}$, or $2202\{202\}$.
[3322 \{322\} c. Film and Biography.]
[3333 \{333\} c. The Films of John Ford.]
[3395 \{395\} c - IP. Myths, Modernity, Media. (Same as German 3395 \{395\}.)]
4000-4003 \{401-404\} c. Advanced Independent Study in Film Studies. The Program.
4029 \{405\} c. Advanced Collaborative Study in Film Studies. The Program.

## First-Year Seminars

Africana Studies $1010\{10\}$ b. Racism. Fall 2013. Roy Partridge.
Examines issues of racism in the United States, with attention to the social psychology of racism, its history, its relationship to social structure, and its ethical and moral implications. (Same as Sociology $1010\{10\}$.)
Africana Studies 1012 \{12\} c. Affirmative Action and United States Society. Fall 2015. Brian Purnell.
Interdisciplinary exploration of the rise and fall (and reappearance) of the "affirmative action debate" that shaped so much of the American "culture wars" during the 1970s-2000s. Students primarily study affirmative action in the United States, but there will also be comparative analysis of "affirmative action" systems in societies outside the United States, such as South Africa and India. Examines important Supreme Court cases that have shaped the contours of affirmative action, the rise of "diversity" discourse, and the different ways political and cultural ideologies, not to mention historical notions of American identity, have determined when, where, and how affirmative action has existed, and whom it benefits. Through examination of law, economics, sociology, anthropology, history, and political science, introduces students to different methodological approaches that inform Africana Studies and that field's examination of the role people of African descent have played in contemporary and historical American society. Writing intensive. Analytical discussions of assigned texts.
Africana Studies 1019 c. Holy Songs in a Strange Land. Spring 2014. Judith Casselberry.
Examines Black American sacred music from its earliest forms, fashioned by enslaved Africans, through current iterations, produced by Black global actors of a different sort. What does bondage sound like? What does emancipation sound like? Can we hear corresponding sounds generated by artists today? In what ways have creators of sacred music embraced, rejected, and re-envisioned the "strange land" over time? Looks at musical and lyrical content and the context in which various music genres developed, such as Negro spirituals, gospel, and sacred blues. Contemporary artists such as Janelle Monáe, Beyoncé, and Lupe Fiasco included as well. (Same as Music 1011.)
Africana Studies 1025 \{25\} c. The Civil War in Film. Fall 2013. Patrick Rael.
Explores the American Civil War through an examination of popular films dedicated to the topic. Students analyze films as a representation of the past, considering not simply their historical subject matter, but also the cultural and political contexts in which they are made. Films include The Birth of a Nation, Gone with the Wind, Glory, and Cold Mountain. Weekly evening film screenings. (Same as History 1016 \{25\}.)
Africana Studies 1026 \{16\} c. Fictions of Freedom. Fall 2013. Tess Chakkalakal.
Explores the ways in which the idea of American freedom has been defined both with and against slavery through readings of legal and literary texts. Students to come to terms with the intersections between the political, literary, and historical concept of freedom and its relation to competing definitions of American citizenship. (Same as English 1026 \{26\}.)

## Africana Studies $1040\{13\}$ c. From Montezuma to Bin Laden: Globalization and Its Critics. Fall 2013. David Gordon.

Examines the challenge that globalization and imperialism pose for the study of history. How do historians balance the perspectives of victors and victims in past and present processes of globalization? How important are non-European versions of the past that may contradict European Enlightenment historical ideas and ideals? Class discussions interrogate questions about globalization and imperialism raised by proponents and critics, ranging from the Spanish conquest of Mexico to the American conquest of Iraq. (Same as History 1040 \{16\}.)

## Anthropology 1013 \{13\} b. Beyond Pocahontas: Native American Stereotypes. Spring

 2014. Kelly Fayard.Traces the development of Native American stereotypes perpetuated by popular media both historically and at present. Considers effects of such stereotypes in contemporary media and popular culture. Analyzes films, literature, advertisements, cartoons, newspapers, magazines, and sports team mascots, among other forms of popular media and culture. Explores the diversity and variety of Native American peoples that are in opposition to media-produced stereotypical images.

Anthropology 1027 \{27\} b. Understanding Ourselves in the Digital Age. Fall 2013. Melissa Rosario.

Through journal articles, films, and Internet sites explores how the Internet has cultivated new modes of communication and a new sense of selfhood among individuals and in society. Investigates the blurring of human and technological worlds and how that has shaped people's perception of the boundary of self and world. Also, asks how prevalent social inequalities have made their way online. To understand this massive technological transformation and its impact on societies, students will turn to their own lives, exploring how their identities and everyday lives are shaped by the Internet.

Art History 1019 \{19\} c. Representing the Modern Artist in Word and Image. Fall 2013. Susan B. Bakewell.

Artists' experiences as recorded in self-portraits and life writings, and in others' writings and images, shape this investigation into art-making in Europe. Examines the commonalities and particularities of early-modern and modern artists' situations within the larger contexts of artistic training, belief, class, economics, gender, geography, historical events, patronage, and politics. Class meetings feature viewings, discussions, and museum and studio field trips. Sequenced research and writing assignments introduce students to research and resources, develop critical-thinking skills, and offer valuable practice in drafting, revising, and refining written work.

Art History 1026 \{26\} c. Art and the Public Sphere. Fall 2013. Natasha Goldman.
Examines public art that generates conversations about identity, disenfranchisement, and belonging, from 1960 to the present. Topics include but are not limited to: borders and immigration (Emily Jacir, Border Film Project), minority identities (Rob Lowe, Suzanne Lacy), queer subjectivity (Gran Fury, Felix González-Torres), environmental activism (Natalie Jeremijenko, Chris Drury), and memorials to tragedy (Ground Zero). Theories of memory and the public sphere help us to analyze works studied. Students work in groups to commission, design, and jury a hypothetical work of public art. The course may include one field trip to Boston.

Asian Studies 1006 c. China Encounters the West. Fall 2014. Leah Zuo.
Explores the historical relationship between China and the West through examining a selection of their encounters from the seventeenth through the early twentieth centuries. Key episodes include: the Jesuit and Protestant missions, the arrival of the Industrial West (imperialism and war), the Cold War, and beyond. Examines such themes as religion and religiosity, science and technology, and the dynamics of cultural accommodation and communication. Interdisciplinary. Draws upon readings of history, the history of science, religion, and political science. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 1036.)

Asian Studies 1043 \{23\} c. East Asian Genre Cinema: Action, Anime, and Martial Arts. Fall 2013. Shu-chin Tsui.

Explores East Asian cinema from a genre perspective with a focus on Hong Kong action, Japanese anime, and transnational martial arts films. In the framework of social-cultural history and context of genre theory, examines the paradigms that characterize the form and content of such films; investigates the relations between local-global and nationaltransnational; studies genre-specific issues such as spectators' perception or industry practices to discern the role of gender, nation, power, and historiography. After taking the course, students will be able to explain the theoretical concepts of genre cinema, analyze the genre's visual formation, and comprehend the social-cultural implications of the genre. (Same as Film Studies 1043 \{23\}.)

Biology 1026 \{26\} a. Adventures in Neuroscience: Aphasias, Auras, and Axons. Fall 2013. Hadley Horch.

Students will be introduced to the basics of neurobiology, and begin to understand the challenges inherent to studying the brain. Topics will include basic neuronal function, animal behavior, mutations and mental illness, drugs and addiction, neuroethics, and consciousness. Readings from journal articles, websites, and popular press science books will be used. Students will develop critical thinking skills through regular class discussions, debates, and in-class scientific experimentation and data collection. Regular writing assignments will utilize a variety of science writing styles.

## [Biology 1027 \{27\} a. Evolutionary Links.]

Chemistry 1011 \{11\} a. Great Issues in Science. Fall 2013. Daniel M. Steffenson.
Presents a realistic and mature picture of science and the methods employed by current scientists to provide acceptable justifications for scientific hypotheses and theories. Starting with the invention of science by the ancient Greek philosophers (Lucretius, On the Nature of Things) and using historical examples from various sciences, three philosophical models of justification are examined in detail: logical empiricism (the Vienna Circle), Fallibilism (Popper), and Conventionalism (Kuhn). Several literary images of science (Vonnegut, Brecht, Pynchon, Crichton) are compared to the philosophical models. Examines the role of scientists in making certain value judgments about issues raised by developments such as organ transplants or stem cell research.

Classics 1011 \{11\} c. Shame, Honor, and Responsibility. Fall 2013. Jennifer Clarke Kosak.
Examines Greek and Roman notions of responsibility to family, state, and self, and the social ideals and pressures that shaped ancient attitudes towards duty, shame, and honor. Readings may include works by Homer, Sophocles, Euripides, Virgil, Ovid, and Petronius.
[Classics 1019 \{19\} c. Ancient Democracy and Its Critics.]

Dance $1010\{10\}$ c. Understanding Theater and Dance: Doing, Viewing, and Reviewing. Fall 2014. The Department of Theater and Dance.

The goal is appreciation and understanding of contemporary performance. Investigates critical perspectives on dance, drama, and other performance events. Develops viewing and writing skills: description, analysis, interpretation, evaluation. Attending live performances, on and off campus, watching films and videos, and participating in studio workshops with performers and writers provide a basis for four essays and other modes of critical responsewritten, oral, or visual. (Same as Theater $1010\{10\}$.)

Economics 1018 \{18\} b. The Art of the Deal: Commerce and Culture. Fall 2013. B. Zorina Khan.

Explores the economics of culture, including the analysis of markets for art, music, literature, and movies. If culture is "priceless," then why do artists starve while providers of pet food make billions? Why are paintings by dead artists generally worth more than paintings by living artists? Could music piracy on the information superhighway benefit society? Can Tom Hanks turn a terrible movie into a contender at the box office? Students are not required to have any prior knowledge of economics, and will not be allowed to argue that baseball comprises culture.

Education 1015 \{15\} c. Urban Education. Fall 2013. Doris Santoro.
Explores the experiences of various stakeholders: students, parents, teachers, educational leaders, unions, local residents, and non-profit and educational management organizations; and the roles of urban public schools in their communities. Films and readings examine representations of urban students, their teachers, and their schools; analyze the purposes, challenges, and possibilities of urban education; consider schools' relationships to the cities in which they are located; and interrogate the politics of urban teaching. Investigates urban schools as sites of promise and innovation as well as sites for social and political struggle.

## [Education $1020\{20\}$ c. The Educational Crusade.]

English 1003 \{ 10$\}$ c. Shakespeare’s Afterlives. Fall 2013. Aaron Kitch.
Romeo and Juliet as garden gnomes, Richard III as Adolf Hitler, King Lear as aging patriarch of an Iowa family farm . . . Shakespeare has been translated and reimagined in various ways over the centuries. Explores some of the ways his works have been adapted and appropriated from the sixteenth century until today. Reading selected plays by Shakespeare in tandem with adaptations, examines the aesthetic, cultural, and political transformations of the Bard in a variety of genres, including prose, film, and a range of visual arts. Authors may include Tom Stoppard, Jane Smiley, and Arthur Philips, with films by Julie Taymor (Titus Andronicus) and Kelly Asbury (Gnomeo and Juliet).
English 1013 \{12\} c. Homebodies: Geography as Identity in Fiction. Fall 2013. Sarah Braunstein.

Where are you from? How does the place you're born and raised inform your consciousness? Novels answer these questions more fully and deeply than any other kind of writing. Investigates psychological, spiritual, cultural, historical, and political meanings of home. Students read novels, stories, and essays in which place is itself a character. Questions include: How do writers create vivid, palpable places? How does a book's setting illuminate the (often secret) lives of its characters? Special focus on the coastline, on water, and on shape-shifting landscapes that draw attention to shifting identities. Through critical and creative assignments, students analyze creative prose and write their own. By experimenting with various stylistic
techniques, and by visiting sites along the Maine coast, participants seek to document past homes in a new way-and to experience a new place as home. Readings may include Virginia Woolf, Denton Welsh, James Baldwin, Toni Morrison, Annie Dillard, Marilynn Robinson, Jamaica Kincaid, Bonnie Nadzam, Eowyn Ivy, and others. (Same as Gender and Women's Studies 1013 \{26\}.)

## English 1016 \{13\} c. Hawthorne. Fall 2013. William Watterson.

Readings include selected short stories, Fanshawe, The Scarlet Letter, The Blithedale Romance, The House of the Seven Gables, The Marble Faun, Septimus Felton, and James Mellow's Nathaniel Hawthorne in His Times.

English 1026 \{26\} c. Fictions of Freedom. Fall 2013. Tess Chakkalakal.
Explores the ways in which the idea of American freedom has been defined both with and against slavery through readings of legal and literary texts. Students come to terms with the intersections between the political, literary, and historical concept of freedom and its relation to competing definitions of American citizenship. (Same as Africana Studies 1026 \{16\}.)
English 1041 \{21\} c. Arab and Jew in Literature and Film. Spring 2014. Marilyn Reizbaum.
Considers the interface between Arabs and Jews as produced on page and screen. Offers both geographical and generic range, bringing into view texts that talk to each other across ethnic, religious, historical, and theoretical boundaries. When these two figures are placed in relation to each other, they must invoke the Middle East, in particular Palestine-Israel: discusses works in translation, fiction and poetry, from the broad region, and may include authors Anton Shammas, Mahmoud Darwish, Ronit Matalon, Shimon Ballas, Haim Hazazz; writers in English such as Naomi Shihab Nye, Ammiel Alcalay, Philip Roth, Edward Said, and Ella Shohat; films by Elia Suleiman (Chronicle of a Disappearance), Khleifi (Wedding in Galilee), Gitai (Kippur), Abu-Assad (Paradise Now), Kolirin (The Band's Visit), Kassovitz (Hate); and visual artists Mona Hatoum and Adi Nes.
English 1042 \{22 $\}$ c. Transfigurations of Song. Fall 2013. David Collings.
A course in close reading. Explores poetry, primarily in the Romantic tradition, which dallies with the dangers of lyrical transport, whether in the form of fusion with the divine, aesthetic seduction, impossible quest, or physical transfiguration. Authors may include Coleridge, Wordsworth, Keats, Tennyson, Yeats, Crane, and Stevens.

English 1043 \{29\} c. Fact and Fiction. Fall 2013. Brock Clarke.
An introduction to the study and creation of various kinds of narrative forms (short story, travel essay, bildungsroman, detective fiction, environmental essay, satire, personal essay, etc.). Students write critical essays and use the readings in the class as models for their own short stories and works of creative nonfiction. Class members discuss a wide range of published canonical and contemporary narratives and workshop their own essays and stories. In doing so, the class dedicates itself to both the study of literature and the making of it.

English 1046 \{24\} c. After Kafka. Fall 2013. Hilary Thompson.
A look at contemporary global fiction with an eye for the influence of Franz Kafka (18831924). Investigates how and why current writers from around the world have acknowledged Kafka's work as they have engaged with themes of modern alienation, modes of magical realism, ideas of existence's absurdity, images of arbitrary authoritarian power, and questions of human/animal difference. Considers what it means for a writer to spawn an adjective as well as whether an international literary world grown ever more Kafka friendly is necessarily
evidence of a world grown ever more Kafkaesque. Authors, in addition to Kafka, may include Jorge Luis Borges, Italo Calvino, Can Xue, J. M. Coetzee, Yiyun Li, Haruki Murakami, and Jonathan Tel.

English 1047 \{23\} c. Early European Representations of Islam. Fall 2013. Emma Maggie Solberg.

Introduces students to Islam in the medieval and early modern European imagination, covering a wide array of interdisciplinary sources: bitter religious polemic, eyewitness accounts of the Crusades, and fantastical travel narratives-written from both Christian and Muslim perspectives-as well as medieval and Renaissance European romances about Saracen knights and plays about Turkish tyrants. Texts include The Qur'an, Dante's Inferno, The Song of Roland, The Travels of Sir John Mandeville, and William Percy's Mabomet and His Heaven.
English 1048 \{25\} c. Contemporary Short Fiction in English. Fall 2013. Celeste Goodridge.
Examines some of the formal features of narrative: plot, character development, point of view, the role of the reader, and closure, arguing that short stories have different requirements of economy than longer narratives. Emphasizing Gothic elements and representations of transgression, power, secrets, dysfunctionality, and domestic arrangements, authors may include Tessa Hadley, Alice Munro, Colm Toibin, William Trevor, and Claire Keegan.
[Environmental Studies $1012\{12\}$ c. Campus: Architecture and Education in the American College, 1800-2000.]
Environmental Studies $1015\{15\}$ c. Frontier Crossings: The Western Experience in American History. Spring 2014. Matthew Klingle.
What accounts for the persistence of the "frontier myth" in American history, and why do Americans continue to find the idea so attractive? Explores the creation of and disputes over what became of the western United States from 1763 to the present. Topics include EuroAmerican relations with Native Americans; the creation of borders and national identities; the effect of nature and ideology; the role of labor and gender in the backcountry; and the enduring influence of frontier imagery in popular culture. (Same as History 1020 \{15\}.)

## [Film Studies 1025 \{10\} c. Cultural Difference and the Crime Film.]

Film Studies 1043 \{23\} c. East Asian Genre Cinema: Action, Anime, and Martial Arts. Fall 2013. Shu-chin Tsui.

Explores East Asian cinema from a genre perspective with a focus on Hong Kong action, Japanese anime, and transnational martial arts films. In the framework of social-cultural history and context of genre theory, examines the paradigms that characterize the form and content of such films; investigates the relations between local-global and nationaltransnational; studies genre-specific issues such as spectators' perception or industry practices to discern the role of gender, nation, power, and historiography. After taking the course, students will be able to explain the theoretical concepts of genre cinema, analyze the genre's visual formation, and comprehend the social-cultural implications of the genre. (Same as Asian Studies 1043 \{23\}.)
[Gay and Lesbian Studies 1027 \{27\} c. From Flowers of Evil to Pretty Woman: Prostitutes in Modern Western Culture. (Same as Gender and Women's Studies 1027 \{27\} and German 1027 \{27\}.)]

Gender and Women's Studies 1013 \{26\} c. Homebodies: Geography as Identity in Fiction. Fall 2013. Sarah Braunstein.

Where are you from? How does the place you're born and raised inform your consciousness? Novels answer these questions more fully and deeply than any other kind of writing. Investigates psychological, spiritual, cultural, historical, and political meanings of home. Students read novels, stories, and essays in which place is itself a character. Questions include: How do writers create vivid, palpable places? How does a book's setting illuminate the (often secret) lives of its characters? Special focus on the coastline, on water, and on shape-shifting landscapes that draw attention to shifting identities. Through critical and creative assignments, students analyze creative prose and write their own. By experimenting with various stylistic techniques, and by visiting sites along the Maine coast, participants seek to document past homes in a new way-and to experience a new place as home. Readings may include Virginia Woolf, Denton Welsh, James Baldwin, Toni Morrison, Annie Dillard, Marilynn Robinson, Jamaica Kincaid, Bonnie Nadzam, Eowyn Ivy, and others. (Same as English 1013 \{12\}.)
Gender and Women's Studies $1014\{30\}$ b. Mothers, Sisters, and Facebook Friends: Is Feminism a Dysfunctional Family? Fall 2013. Susan Faludi.

Recently, women have begun to claim power formerly held by men. Yet in politics, work, and the family, women are so often unable to pass down power from one woman to the next-with the effect that the search for women's equality seems to begin anew with every generation. How to explain this inability to create a "mother-daughter" succession? And why does "sisterhood" so often turn poisonous? Explores feminism's generational breakdown from a variety of perspectives-political, cultural, psychological—and traces its roots in history, from Republican Motherhood to radical feminism to Facebook's "Lean In" circles.

Gender and Women’s Studies 1022 \{22\} c. "Bad" Women Make Great History: Gender, Identity, and Society in Modern Europe, 1789-1945. Fall 2013. Page Herrlinger.

Focuses on the lives and works of path-breaking women who defied the norms of modern European society in order to assume extraordinary and often controversial identities in a range of fields-as writers, scientists, performers, athletes, soldiers, and social and political activists. What does each woman's "deviance" reveal about cultural constructions of identity and the self in Modern Europe? About contemporary views on issues such as women's work, gender relations, education, marriage, sexuality, motherhood, health, and the struggle for civil and political rights? And when studied together, what do these women's experiences tell us about patterns of change and continuity with respect to definitions of masculinity vs. femininity, the public vs. private sphere, and the relationship of the individual to the modern state? (Same as History 1012 \{22\}.)
[Gender and Women's Studies 1027 \{27\} c. From Flowers of Evil to Pretty Woman: Prostitutes in Modern Western Culture. (Same as Gay and Lesbian Studies 1027 \{27\} and German 1027 \{27\}.)]
[German 1027 \{27\} c. From Flowers of Evil to Pretty Woman: Prostitutes in Modern
Western Culture. (Same as Gay and Lesbian Studies 1027 \{27\} and Gender and Women's
Studies 1027 \{27\}.)]
[Government $1000\{21\}$ b. Citizenship and Representation in American Politics.]
Government $1001\{25\}$ b. Representation, Participation, and Power in American Politics. Fall 2013. Janet M. Martin.

An introductory seminar in American national politics. Readings, papers, and discussion
explore the changing nature of power and participation in the American polity, with a focus on the interaction between individuals (non-voters, voters, party leaders, members of Congress, the President) and political institutions (parties, Congress, the executive branch, the judiciary). Not open to students who have credit for or are concurrently taking Government $1100\{150\}$.

Government 1002 \{27\} b. Political Leadership. Fall 2013. Andrew C. Rudalevige.
We talk about political leadership all the time, mostly to complain about its absence. Leadership is surely one of the key elements of politics, but what does it mean? Do we know it when we see it? What kinds of leaders do we have, and what kinds do we want? How do modern democratic conceptions of governance mesh with older visions of authority? Of ethics? Looks both at real world case studies and the treatment of leadership in literature. Offers a wide variety of perspectives on leadership and the opportunities and dangers it presents-both for those who want to lead, and for those who are called upon to follow.

## Government 1011 \{26\} b. Fundamental Questions: Exercises in Political Theory. Fall

 2013. Jean M. Yarbrough.Explores the fundamental questions in political life: What is justice? What is happiness? Are human beings equal or unequal by nature? Do they even have a nature, or are they "socially constructed"? Are there ethical standards for political action that exist prior to law and, if so, where do they come from? Nature? God? History? Readings may include Plato, Aristotle, the Bible, Machiavelli, Locke, Rousseau, Shakespeare, the American Founders, Tocqueville, and Nietzsche.

## [Government 1012 \{28\} b. Human Being and Citizen.]

Government 1016 \{29\} b. How to Rule the World. Fall 2013. Shilo Brooks.
Explores what may well be the highest political theme: the requirements of great political rule. What must we do in order to govern well? Even more important, what must we know? Should we be guided by the concern for justice-for human rights, for example-or by the sometimes unpleasing demands of what can politely be called "national security"? Does great political leadership in democratic times differ in any important way from that seen in the great nations of the past? With these and related questions in mind, students read, reflect on, and write carefully about a handful of foundational texts that all deal, in very different ways, with the question of the requirements of great political leadership. Readings include Lincoln, Machiavelli, Shakespeare, Xenophon, Plato, the Bible.

## Government $1025\{18\}$ b. NGOs in Politics. Fall 2013. Laura A. Henry.

Nongovernmental organizations (NGOs) are thought to play a crucial role in politicsmonitoring the state, facilitating citizen participation in politics, and articulating policy alternatives. Yet the activities of NGOs vary significantly from one political system to another, most notably differing among developing and developed states and democratic and authoritarian states. In addition, NGOs' role in the political process is being transformed by globalization and the increasingly transnational nature of political activism. Explores the following questions: How do factors such as a state's level of economic development, its political culture, the nature of the political regime, and the arrangement of its political institutions shape NGOs' role and influence in the political process? When and where have NGOs been successful in influencing political developments? How do the growing transnational linkages among NGOs affect their role in domestic politics?

Government $1026\{20\}$ b. Global Media and Politics. Fall 2013. Henry C. W. Laurence.
Examines the impact of media including the Internet, newspapers, and television on politics and society in cross-national perspective. Asks how differences in the ownership and regulation of media affect how news is selected and presented, and looks at various forms of government censorship and commercial self-censorship. Also considers the role of the media and "pop culture" in creating national identities, perpetuating ethnic stereotypes, and providing regime legitimation; and explores the impact of satellite television and the Internet on rural societies and authoritarian governments.

Government $1030\{10\}$ b. The Pursuit of Peace. Fall 2013. Allen L. Springer.
Examines different strategies for preventing and controlling armed conflict in international society, and emphasizes the role of diplomacy, international law, and international organizations in the peace-making process.

Government 1037 \{11\} b. The Korean War. Fall 2013. Christian P. Potholm.
The Korean War is often called "the forgotten war" because it is overshadowed by World War II and the Vietnam War, yet many important aspects and results of it are mirrored in the contemporary world. Korea is still divided and its situation as a buffer state between China, Russia, and Japan continues to have important policy ramifications for the United States. Focuses not just on the course of the war, but on the foreign policy assumptions of the two Korean governments, the United States, the People's Republic of China, and Russia.

History 1012 \{22\} c. "Bad" Women Make Great History: Gender, Identity, and Society in Modern Europe, 1789-1945. Fall 2013. Page Herrlinger.

Focuses on the lives and works of path-breaking women who defied the norms of modern European society in order to assume extraordinary and often controversial identities in a range of fields-as writers, scientists, performers, athletes, soldiers, and social and political activists. What does each woman's "deviance" reveal about cultural constructions of identity and the self in Modern Europe? About contemporary views on issues such as women's work, gender relations, education, marriage, sexuality, motherhood, health, and the struggle for civil and political rights? And when studied together, what do these women's experiences tell us about patterns of change and continuity with respect to definitions of masculinity vs. femininity, the public vs. private sphere, and the relationship of the individual to the modern state? (Same as Gender and Women's Studies 1022 \{22\}.)
History 1014 \{12\} c. Utopia: Intentional Communities in America, 1630-1997. Fall 2014. Sarah McMahon.

An examination of the evolution of utopian visions and utopian experiments that begins in 1630 with John Winthrop's "City upon a Hill," explores the proliferation of both religious and secular communal ventures between 1780 and 1920, and concludes with an examination of twentieth-century counterculture communes, intentional communities, and dystopian separatists. Readings include primary source accounts by members (letters, diaries, essays, etc.), "community" histories and apostate exposés, utopian fiction, and scholarly historical analyses. Discussions and essays focus on teaching students how to subject primary and secondary source materials to critical analysis.
History 1016 \{25\} c. The Civil War in Film. Fall 2013. Patrick Rael.
Explores the American Civil War through an examination of popular films dedicated to the topic. Students analyze films as a representation of the past, considering not simply their
historical subject matter, but also the cultural and political contexts in which they are made. Films include The Birth of a Nation, Gone with the Wind, Glory, and Cold Mountain. Weekly evening film screenings. (Same as Africana Studies 1025 \{25\}.)

History 1018 \{11\} c. Memoirs and Memory in American History. Fall 2013. Connie Chiang.
Examines the ways in which Americans have remembered the past and documented their experiences in individual memoirs. Considers the tensions between memory and history, the value of memoirs as historical documents, and the extent to which memories deepen, complicate, and even convolute our understanding of twentieth-century United States history. The topical focus of the seminar will vary from year to year and may include immigration, labor, gender and race relations, and war. Writing-intensive, including several short papers and a family history research paper.
History $1020\{15\}$ c. Frontier Crossings: The Western Experience in American History. Spring 2014. Matthew Klingle.

What accounts for the persistence of the "frontier myth" in American history, and why do Americans continue to find the idea so attractive? Explores the creation of and disputes over what became of the western United States from 1763 to the present. Topics include EuroAmerican relations with Native Americans; the creation of borders and national identities; the effect of nature and ideology; the role of labor and gender in the backcountry; and the enduring influence of frontier imagery in popular culture. (Same as Environmental Studies 1015 \{15\}.)

History $\mathbf{1 0 2 2}$ \{14\} c. Science and Society. Fall 2014. David Hecht.
Focuses on twentieth-century science, technology, and medicine. Uses a number of seminal events and ideas-evolution, nuclear weapons, environmentalism, genetics, climate change and public health—to examine changing meanings of "science." Science is neither as objective nor as detached from society as is commonly assumed; examines the nature of its interaction with broader themes and events in twentieth-century American politics and culture.

History 1036 c. China Encounters the West. Fall 2014. Leah Zuo.
Explores the historical relationship between China and the West through examining a selection of their encounters from the seventeenth through the early twentieth centuries. Key episodes include: the Jesuit and Protestant missions, the arrival of the Industrial West (imperialism and war), the Cold War, and beyond. Examines such themes as religion and religiosity, science and technology, and the dynamics of cultural accommodation and communication. Interdisciplinary. Draws upon readings of history, the history of science, religion, and political science. Note: This course fulfills the pre-modern requirement for history majors. (Same as Asian Studies 1006.)
History $\mathbf{1 0 4 0}\{16\}$ c. From Montezuma to Bin Laden: Globalization and Its Critics. Fall 2013. David Gordon.

Examines the challenge that globalization and imperialism pose for the study of history. How do historians balance the perspectives of victors and victims in past and present processes of globalization? How important are non-European versions of the past that may contradict European Enlightenment historical ideas and ideals? Class discussions interrogate questions about globalization and imperialism raised by proponents and critics, ranging from the Spanish conquest of Mexico to the American conquest of Iraq. (Same as Africana Studies $1040\{13\}$.)

Interdisciplinary Studies $1010\{10\}$ b. Health Care Disparities in the United States. Fall 2013. Stephen Loebs.

Health care occupies center stage in state and national elections. Inequities in health care in the United States have a direct impact on children and adults, especially those living in poverty, as well as on the national economy. Multicultural differences on health care present barriers to improving health status. Introduces the application of different academic disciplines, such as economics, political science, and sociology, to the contours of health care policy and debates, with the following questions forming the core: Why are there inequities in such a wealthy nation as ours? Are health care inequities a fixture of our pluralistic and market based economy? What can be learned from comparison with other, similar nations? Why is so much spent on health care with questionable outcomes? Several written essays and active class participation expected.

## Music 1011. Holy Songs in a Strange Land. Spring 2014. Judith Casselberry.

Examines Black American sacred music from its earliest forms, fashioned by enslaved Africans, through current iterations, produced by Black global actors of a different sort. What does bondage sound like? What does emancipation sound like? Can we hear corresponding sounds generated by artists today? In what ways have creators of sacred music embraced, rejected, and re-envisioned the "strange land" over time? Looks at musical and lyrical content and the context in which various music genres developed, such as Negro spirituals, gospel, and sacred blues. Contemporary artists Janelle Monáe, Beyoncé, and Lupe Fiasco will be included as well. (Same as Africana Studies 1019.)
Philosophy 1025 \{ 25$\}$ c. On the Power and Limit of Persuasion. Fall 2013. Nathan Rothschild.

Examines the robust debate in Classical Athens about the power of words-both in public and private-to shape our opinions, desires, and even our character. Authors studied will include Sophocles, Euripides, Aristophanes, Thucydides, Plato, and Aristotle. Concurrent with considering what persuasion can accomplish, explores these authors' views concerning what it cannot. Of particular concern will be the relationship of persuasive speech to true speech, whether persuasion can lead to character change, and the dangers of false public opinion and debate. Intended in part as a philosophically inflected introduction to the thought and literature of Ancient Greece.
[Philosophy 1028 \{28\} c. A Philosopher's Dozen.]
[Philosophy 1038 \{18\} c. Love.]
Philosophy 1040 \{14\} c. Personal Identity. Fall 2013. Matthew Stuart.
What is it that makes you a person, and what is it that makes you the same person as the little kid in your parents' photo album? Philosophers have defended a number of different answers to these questions. According to some, it is persistence of the same soul that makes for personal identity. Others argue that it is persistence of the same body that matters, or the continuity of certain biological processes. Still others contend that it is psychological relations that matter. We will canvas all of these answers, and will consider thought experiments about soul swapping, brain transplants, and Star Trek transporters. Readings from both historical and contemporary sources.
[Psychology $1010\{10\}$ b. What's on Your Mind? An Introduction to the Brain and Behavior.]

Religion 1015 \{015\} c. Religion, Violence, and Secularization. Fall 2013. Elizabeth Pritchard.

Introduces the rationales and repercussions of the rise of the modern secular nation state as a solution to "religious violence," one of the most pressing challenges of the contemporary world. In so doing, complicates the association of violence and backwardness with "religion," and peace and progress with "secularism." Topics include the demarcations of state and church and public and private; the relationship between skepticism and toleration; the rise of so-called "fundamentalism"; the shifting assessments of the injuriousness of religious belief, speech, and act; and the assumptions surrounding what it is that constitutes "real religion."

## [Religion 1027 \{27\} c. Astral Religion in the Near East and Classical Antiquity.]

Russian 1022 \{22\} c. "It Happens Rarely, Maybe, but It Does Happen"-Fantasy and Satire in East Central Europe. Every other fall. Fall 2014. Raymond Miller.

Explores the fantastic in Russian and East European literature from the 1830s into the late twentieth century. Studies the origins of the East European fantastic in Slavic folklore and through the Romantic movement, and traces the historical development of the genre from country to country and era to era. Examines the use of the fantastic for the purpose of satire, philosophical inquiry, and social commentary, with particular emphasis on its critiques of nationalism, modernity, and totalitarianism. Authors include Nikolai Gogol', Mikhail Bulgakov, Karel Capek, Stanislaw Lem, and Franz Kafka.

Sociology $1010\{10\}$ b. Racism. Fall 2013. Roy Partridge.
Examines issues of racism in the United States, with attention to the social psychology of racism, its history, its relationship to social structure, and its ethical and moral implications. (Same as Africana Studies 1010 \{10\}.)
Theater $1010\{10\}$ c. Understanding Theater and Dance: Doing, Viewing, and Reviewing. Fall 2014. The Department of Theater and Dance.
The goal is appreciation and understanding of contemporary performance. Investigates critical perspectives on dance, drama, and other performance events. Develops viewing and writing skills: description, analysis, interpretation, evaluation. Attending live performances, on and off campus, watching films and videos, and participating in studio workshops with performers and writers provide a basis for four essays and other modes of critical responsewritten, oral, or visual. (Same as Dance 1010 \{10\}.)

# Gay and Lesbian Studies 

David Collings, Program Director
Glynis Wears-Siegel, Program Coordinator

Contributing Faculty: Susan Bell, Aviva Briefel, David A. Collings, Peter Coviello, Sarah O’Brien Conly $\dagger$, Guy Mark Foster, Celeste Goodridge, David Hecht, Aaron Kitch, Matthew W. Klingle, Elizabeth Pritchard, Marilyn Reizbaum, Nancy E. Riley, Jill S. Smith, Birgit Tautz, Krista Van Vleet, William Watterson

The interdisciplinary Gay and Lesbian Studies Program coordinates courses that incorporate research on sexuality, particularly on gay, lesbian, bisexual, and transgender people. Drawing on a variety of approaches in several disciplines, such as queer theory and the history of sexuality, the program examines constructions of sexuality in institutions of knowledge, in aesthetic representation, and in modes of social practice, examining the question of sexual identity and performance across cultures and historical periods.

## Requirements for the Minor in Gay and Lesbian Studies

The minor consists of five courses: Gay and Lesbian Studies 2001 \{201\} and four other courses from the offerings listed below, some of which will change with every academic year. Among the latter four courses, at least one must come from the social sciences and at least one from the arts and humanities division, and no more than two courses may come from any single department. Only one independent study may be counted toward the minor. Students must earn a grade of C - or better in order to have a course count toward the minor.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
[ 1027 \{27\} c. From Flowers of Evil to Pretty Woman: Prostitutes in Modern Western Culture. (Same as Gender and Women's Studies 1027 \{27\} and German 1027 \{27\}.)]

## Introductory, Intermediate, and Advanced Courses

1116 \{116\} c. Christian Sexual Ethics. Fall 2015. Elizabeth Pritchard.
An examination of the themes, varieties, and conflicts of Christian teachings and practices regarding sex and sexuality. Source materials include the Bible, historical analyses, Church dogmatics, legal cases, and ethnographic studies. Topics include celibacy and marriage, the development and status of sexual orientations, natural law, conversion therapy, reproductive rights and technologies, and comparative religious ethics. (Same as Gender and Women's Studies 1117 \{117\} and Religion 1116 \{116\}.)

2001 \{201\} - ESD. Gay and Lesbian Studies. Every year. Fall 2013. Peter Coviello.
An introduction to the materials, major themes, and defining methodologies of gay and lesbian studies. Considers in detail both the most visible contemporary dilemmas involving homosexuality (queer presence in pop culture, civil rights legislation, gay-bashing, AIDS, identity politics) as well as the great variety of interpretive approaches these dilemmas have, in recent years, summoned into being. Such approaches borrow from the scholarly practices of literary and artistic exegesis, history, political science, feminist theory, and psychoanalysis-to
name only a few. An abiding concern over the semester is to discover how a discipline so variously influenced conceives of and maintains its own intellectual borders. Course materials include scholarly essays, journalism, films, novels, and a number of lectures by visiting faculty.

## 2002 \{202\} c. Victorian Urban Narratives. Spring 2014. Aviva Briefel.

Seminar. An exploration of London as space and character in Victorian literary narratives. Considers such topics as the intersections between identity and urban setting, the relationship between genre and literary space, and the overlaps in mappings of cities and narratives. Consideration of literary and cultural theory and criticism is central. Authors may include Conrad, Dickens, Dixon, Doyle, Gissing, Marsh, and Wilde. (Same as English 2002 \{208\} and Gender and Women's Studies 2202 \{202\}.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
$2120\{212\}$ c - ESD. Gender, Sexuality, and Schooling. Fall 2014. Doris Santoro.
Schools are sites where young people learn to "do" gender and sexuality through direct instruction, the hidden curriculum, and peer-to-peer learning. In schools, gender and sexuality are challenged, constrained, constructed, normalized, and performed. Explores instructional and curricular reforms that have attempted to address students' and teachers' sexual identities and behavior. Examines the effects of gender and sexual identity on students' experience of school, their academic achievement, and the work of teaching. Topics may include Compulsory Heterosexuality in the Curriculum; the Gender of the Good Student and Good Teacher; Sex Ed in an Age of Abstinence. (Same as Education $2212\{212\}$ and Gender and Women's Studies 2282 \{282\}.)
Prerequisite: One of the following: Education 1101 \{101\}, Gay and Lesbian Studies 2001 \{201\}, or Gender and Women's Studies 1101 \{101\}.

2266 \{266\} c - ESD. The City as American History. Fall 2013. Matthew Klingle.
Seminar. America is an urban nation today, yet Americans have had deeply ambivalent feelings toward the city over time. Explores the historical origins of that ambivalence by tracing several overarching themes in American urban history from the seventeenth century to the present. Topics include race and class relations, labor, design and planning, gender and sexual identity, immigration, politics and policy, scientific and technological systems, violence and crime, religion and sectarian disputes, and environmental protection. Discussions revolve around these broad themes, as well as regional distinctions between American cities. Students are required to write several short papers and one longer paper based upon primary and secondary sources. (Same as History 2660 \{226\}.)

2351 \{236\} c. Romantic Sexualities. Spring 2014. David Collings.
Investigates constructions of sexuality in English romantic writing. Examines tales of seduction by supernatural or demonic figures; the sexualized world of the Gothic; the Byronic hero; lyrical depictions of incest; the yearning for an eroticized muse or goddess; and samesex desire in travel writing, diaries, and realist fiction. Discusses the place of such writing in the history of sexual identities, repression, the unconscious, and the sublime. Authors may include Burke, Lewis, Mary Shelley, Byron, Wollstonecraft, Lister, Austen, Coleridge, Keats, and Percy Shelley, with further readings in queer theory and the history of sexuality. (Same as English 2351 \{236\} and Gender and Women's Studies 2234 \{234\}.).

Prerequisite: One first-year seminar or 100-level course numbered 1100-1999 \{100-199\} in English or gender and women's studies, or Gay and Lesbian Studies 2001 \{201\}.
$2426\{287\}$ c. The Horror Film in Context. Fall 2013. Aviva Briefel.
Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe, Romero, and Shelley. (Same as English 2426 \{289\}, Film Studies 2426 \{287\}, and Gender and Women's Studies 2426 \{287\}.)
Prerequisite: One of the following: one first-year seminar or course numbered 1100-1999 \{100-199\} in English or gender and women's studies; or Film Studies 1101 \{101\}, 2201 $\{201\}$, or $2202\{202\}$.

2451 \{245\} c. Modernism/Modernity. Fall 2013. Marilyn Reizbaum.
Examines the cruxes of the "modern," and the term's shift into a conceptual category rather than a temporal designation. Although not confined to a particular national or generic rubric, takes British works as a focus. Organized by movements or critical formations of the modern, i.e., modernisms, psychoanalysis, postmodernism, cultural critique. Readings of critical literature in conjunction with primary texts. Authors/directors/works may include T. S. Eliot, Joyce's Dubliners, Lawrence's Sons and Lovers, Sontag's On Photography, W. G. Sebald's The Natural History of Destruction, Ian McEwen's Enduring Love, Stevie Smith, Kureishi's My Son the Fanatic, and Coetzee’s Disgrace. (Same as English 2451 \{245\} and Gender and Women's Studies 2247 \{247\}.)
Prerequisite: One first-year seminar or course numbered 1000-1999 \{100-199\} in English, gay and lesbian studies, or gender and women's studies.

## $2502\{252\}$ c. American Intimacies: Sex and Love in Nineteenth-Century Literature.

Spring 2014. Peter Coviello.
Homosexuality and its conceptual twin, heterosexuality, are surprisingly late coinages. So what was sex like before such concepts organized the sphere of intimate life in America? Was it a set of bodily practices? An aspect of a person's identity? Was sexuality something an individual could be said to possess? What forms of contact, invest attachment, or imagination could even be counted as sex, and why? Authors may include Whitman, Thoreau, Jewett, Melville, Hawthorne, James, Douglas, Dickinson, and Joseph Smith. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2502 \{252\} and Gender and Women's Studies 2252 \{252\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
$2600\{275\}$ b. Gender and Sexuality in Contemporary Eastern Europe. Spring 2014. Kristen Ghodsee.

Seminar. Examines the current scholarship on gender and sexuality in modern Eastern Europe: the countries of the former Soviet Union, the successor states of Yugoslavia, Poland, Hungary, Romania, the Czech Republic, Slovakia, Bulgaria, and Albania. Focusing on research produced by academics based in the region, examines the dialogue and interchange of ideas between East and West, and how knowledge about the region is dialectically produced by both Western feminists and East European gender studies scholars. Topics include the women question before 1989; nationalism, fertility, and population decline; patterns and expectations for family formation; the politics of European Union gender mainstreaming;
visual representations in television and film; social movements; work; romance and intimacy; spirituality; and the status of academic gender studies in the region. (Same as Gender and Women's Studies $2600\{275\}$.)

Prerequisite: Gender and Women's Studies 1101 \{101\}.
2651 \{276\} c - ESD. Queer Race. Fall 2013. Guy Mark Foster.
How does the concept of "queerness" signify in cultural texts that are ostensibly about the struggle for racial equality? And vice versa, how does the concept of "racialization" signify in cultural texts that are ostensibly about the struggle for LGBT recognition and justice? While some of this work tends to reduce "queer" to traditional sexual minorities like lesbigay and trans folk while downplaying racial considerations, others tend to limit the category "race" to people of color like blacks while downplaying questions about sexuality. Such critical and creative gestures often place "queer" and "race" in opposition rather than as intersecting phenomena. Students examine the theoretical and cultural assumptions of such gestures, and their implications, through close readings of selected works in both the LGBT and African American literary traditions. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2651 \{276\} and English 2651 \{276\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English, Africana studies, or gay and lesbian studies.
2970-2973 \{291-294\}. Intermediate Independent Study in Gay and Lesbian Studies. The Program.

2999 \{299\}. Intermediate Collaborative Study in Gay and Lesbian Studies. The Program.
$3100\{313\}$ b - ESD, IP. Global Sexualities/Local Desires. Fall 2013. Krista Van Vleet.
Explores the variety of practices, performances, and ideologies of sexuality through a crosscultural perspective. Focusing on contemporary anthropological scholarship on sexuality and gender, asks how Western conceptions of "sexuality," "sex," and "gender" help (or hinder) our understanding of the lives and desires of people in other social and cultural contexts. Topics may include "third gendered" individuals; intersexuality and the naturalization of sex; language and the performance of sexuality; drag; global media and the construction of identity; lesbian and gay families; sex work; AIDS and HIV and health policy; migration, asylum and human rights issues; ethical issues and activism. Ethnographic examples are drawn from United States, Latin America (Brazil, Dominican Republic, Mexico, Argentina, Cuba); Asia (India, Japan, Indonesia) and Oceania (Papua New Guinea); and Africa (Nigeria, South Africa). Presents issues of contemporary significance along with key theoretical perspectives and methodological approaches used by anthropologists. Integrates perspectives on globalization and the intersection of multiple social differences (including class, race, and ethnicity) with discussion of sexuality and gender. Not open to students who have credit for Anthropology $2110\{210\}$ (same as Gay and Lesbian Studies $2110\{210\}$ and Gender and Women's Studies $2210\{210\}$ ). (Same as Anthropology $3100\{313\}$, Gender and Women's Studies 3100 \{313\}, and Latin American Studies 3711 \{311\}.)

Prerequisite: Anthropology 1101 \{101\} or Sociology 1101 \{101\}, or permission of the instructor.
[3310 \{310\} c. Gay and Lesbian Cinema. (Same as Film Studies $3310\{310\}$ and Gender and Women's Studies $3310\{310\}$. .)]
[3346 \{346\} c. Philosophy of Gender: Sex and Love. (Same as Gender and Women's Studies 3346 \{346\} and Philosophy 3346 \{346\}.)]

# Gender and Women's Studies 

Kristen Ghodsee, Program Director<br>Anne E. Clifford, Program Administrator

Professor: Jennifer Scanlon<br>Associate Professor: Kristen R. Ghodsee<br>Visiting Faculty: Sarah Braunstein, Susan Faludi

Contributing Faculty: Susan Bell, Aviva Briefel, Jorunn Buckley, Judith S. Casselberry*, David A. Collings, Rachel Ex Connelly, Sara A. Dickey, Pamela M. Fletcher, Celeste Goodridge, David Hecht, Ann L. Kibbie, Raymond Miller, Elizabeth Pritchard, Marilyn Reizbaum, Nancy E. Riley, Rachel Sturman $\dagger$, Susan L. Tananbaum $\dagger$, Birgit Tautz, Shu-chin Tsui, Krista Van Vleet

The gender and women's studies curriculum is an interdisciplinary program that incorporates recent research on women and gender. Gender and women's studies combines the scholarly traditions of each field in new and productive ways to develop a culture of critical thinking about sexuality, gender, race, and class. Courses in gender and women's studies investigate the experience of women and men in light of the social construction of gender and its meaning across cultures and historic periods. Gender construction is explored as an institutionalized means of structuring inequality and dominance. The program offers a wide range of courses taught by faculty members from many departments and programs.

## Requirements for the Major in Gender and Women's Studies

The major consists of nine courses, including three required core courses-Gender and Women's Studies $1101\{101\}, 2201\{201\}$, and an advanced-level capstone seminar (numbered 3000-3999 \{300-399\}) - that are designed to illuminate the diverse realities of women's experience while making available some of the main currents of feminist thought.

The six remaining courses for the major may be chosen from the set of gender and women's studies courses, or from a set of courses in other disciplines that have been approved by the Gender and Women's Studies Program Committee to count toward the major. Gender and women's studies courses are numbered to indicate the level of course instruction. The general level of instruction is indicated by the first number, so that courses numbered 1000-1049 \{10-29\} are first-year seminars, those numbered 1100-1999 \{100-199\} are introductory courses, those numbered 2000-2969 \{200-289\} are intermediate-level courses, and those numbered 3000-3999 \{300-399\} are advanced seminars intended for juniors and seniors.

In total, no more than three of the six elective courses may be from any single department outside of gender and women's studies. The departmental affiliation of the course is considered the department of which the instructor is a member. Courses will count toward the major if grades of C- or better are earned. One course taken with the Credit/D/Fail grading option may count for the major as long as a CR (Credit) grade is earned for the course.

During the spring of their junior year, students who wish to undertake an honors project must secure the agreement of a faculty member to supervise their independent study project. The honors project supervisor must have taught gender and women's studies courses and served on the Gender and Women's Studies Program Committee. If the student's chosen supervisor has not fulfilled both of these requirements, the student may appeal for permission from that
committee. Two semesters of advanced independent work (Gender and Women's Studies 4000 and $4001\{401$ and 402$\}$ ) are required for an honors project in gender and women's studies. No more than two independent study courses may count toward the gender and women's studies major.

## Requirements for the Minor in Gender and Women's Studies

The minor consists of Gender and Women's Studies $1101\{101\}$ and $2201\{201\}$, normally taken in the first or second year, and three additional courses. With the agreement of the major department, students may count one of their major courses for this minor. Only two courses from any single department outside of gender and women's studies will count toward the minor. All courses must be taken for regular letter grades (not Credit/D/Fail) and students must earn a grade of C - or better in order for a course to count toward the minor.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1013 \{26\} c. Homebodies: Geography as Identity in Fiction. Fall 2013. Sarah Braunstein. (Same as English 1013 \{12\}.)
$1014\{30\}$ b. Mothers, Sisters and Facebook Friends: Is Feminism a Dysfunctional Family? Fall 2013. Susan Faludi.

1022 \{22\} c. "Bad" Women Make Great History: Gender, Identity, and Society in Modern Europe, 1789-1945. Fall 2013. Page Herrlinger. (Same as History 1012 \{22\}.)
[ 1027 \{27\} c. From Flowers of Evil to Pretty Woman: Prostitutes in Modern Western Culture. (Same as Gay and Lesbian Studies 1027 \{27\} and German 1027 \{27\}.)]

## Introductory, Intermediate, and Advanced Courses

1101 \{101\} b - ESD. Introduction to Gender and Women’s Studies. Fall 2013. Kristen Ghodsee. Spring 2014. Jennifer Scanlon.

An interdisciplinary introduction to the issues, perspectives, and findings of the new scholarship that examines the role of gender in the construction of knowledge. Explores what happens when women become the subjects of study, what is learned about women, what is learned about gender, and how disciplinary knowledge itself is changed.
$1102\{102\}$ c - ESD, VPA. Cultural Choreographies: An Introduction to Dance. Fall 2013. Nyama McCarthy-Brown.
Dancing is a fundamental human activity, a mode of communication, and a basic force in social life. Investigates dance and movement in the studio and classroom as aesthetic and cultural phenomena. Explores how dance and movement activities reveal information about cultural norms and values and affect perspectives in our own and other societies. Using ethnographic methods, focuses on how dancing maintains and creates conceptions of one's own body, gender relationships, and personal and community identities. Experiments with dance and movement forms from different cultures and epochs-for example, the hula, New England contradance, classical Indian dance, Balkan kolos, ballet, contact improvisation, and African American dance forms from swing to hip-hop-through readings, performances, workshops in the studio, and field work. (Same as Dance 1102 \{101\}.)

1117 \{117\} c. Christian Sexual Ethics. Fall 2015. Elizabeth Pritchard.
An examination of the themes, varieties, and conflicts of Christian teachings and practices regarding sex and sexuality. Source materials include the Bible, historical analyses, Church dogmatics, legal cases, and ethnographic studies. Topics include celibacy and marriage, the development and status of sexual orientations, natural law, conversion therapy, reproductive rights and technologies, and comparative religious ethics. (Same as Gay and Lesbian Studies 1116 \{116\} and Religion 1116 \{116\}.)
[1592 \{140\} c-ESD, VPA. History of Hip-Hop. (Same as Africana Studies $1592\{159\}$ and Music 1292 \{140\}.)]

2201 \{201\} b - ESD. Feminist Theory. Fall 2013 and 2014. Jennifer Scanlon.
The history of women's studies and its transformation into gender studies and feminist theory has always included a tension between creating "woman," and political and theoretical challenges to that unity. Examines that tension in two dimensions: the development of critical perspectives on gender and power relations, both within existing fields of knowledge and within the continuous evolution of feminist discourse itself.

Prerequisite: Gender and Women's Studies $1101\{101\}$ or permission of the instructor.
$2202\{202\}$ c. Victorian Urban Narratives. Spring 2014. Aviva Briefel.
Seminar. An exploration of London as space and character in Victorian literary narratives. Considers such topics as the intersections between identity and urban setting, the relationship between genre and literary space, and the overlaps in mappings of cities and narratives. Consideration of literary and cultural theory and criticism is central. Authors may include Conrad, Dickens, Dixon, Doyle, Gissing, Marsh, and Wilde. (Same as English 2002 \{208\} and Gay and Lesbian Studies 2002 \{202\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2207 \{207\} c - ESD, VPA. Black Women, Politics, Music, and the Divine. Fall 2014. Judith Casselberry.

Seminar. Examines the convergence of politics and spirituality in the musical work of contemporary Black women singer-songwriters in the United States. Analyzes material that interrogates and articulates the intersections of gender, race, class, and sexuality, generated across a range of religious and spiritual terrains with African diasporic/Black Atlantic spiritual moorings, including Christianity, Islam, and Yoruba. Focuses on material that reveals a womanist (Black feminist) perspective by considering the ways resistant identities shape and are shaped by artistic production. Employs an interdisciplinary approach by incorporating ethnomusicology, anthropology, literature, history, and performance and social theory. Explores the work of Shirley Caesar, The Clark Sisters, Me'shell Ndegeocello, Abby Lincoln, Sweet Honey in the Rock, and Dianne Reeves, among others. (Same as Africana Studies 2201 \{201\}, Music 2291 \{201\}, and Religion 2201 \{201\}.)
[2208 \{216\} b - ESD. Sociology of Gender. (Same as Sociology 2519 \{219\}.)]
2221 \{221\} c. Dostoevsky and the Novel. Spring 2015. Raymond Miller.
Examines Fyodor Dostoevsky's later novels. Studies the author's unique brand of realism ("fantastic realism," "realism of a higher order"), which explores the depths of human psychology and spirituality. Emphasis on the anti-Western, anti-materialist bias of Dostoevsky's quest for meaning in a world growing increasingly unstable, violent, and cynical.

Special attention is given to the author's treatment of urban poverty and the place of women in Russian society. (Same as Russian 2223 \{223\}.)

2222 \{222\} b - ESD. "The Wire": Race, Class, Gender, and the Urban Crisis. Spring 2015. Brian Purnell.

Postwar U.S. cities were considered social, economic, political, and cultural zones of "crisis." African Americans-their families, gender relations; their relationship to urban political economy, politics, and culture-were at the center of this discourse. Using David Simon's epic series, The Wire, as a critical source on postindustrial urban life, politics, conflict, and economics, covers the origins of the "urban crisis," the rise of an "underclass" theory of urban class relations, the evolution of the urban "underground economy," and the ways the "urban crisis" shaped depictions of African Americans in American popular culture. (Same as Africana Studies $2220\{220\}$ and Sociology $2220\{220\}$.)

Prerequisite: One of the following: Africana Studies 1101 \{101\}, Education 1101 \{101\}, Gender and Women's Studies $1101\{101\}$, or Sociology $1101\{101\}$, or permission of the instructor.

2224 \{224\} b - ESD. Introduction to Human Population. Fall 2013. Nancy Riley.
An introduction to the major issues in the study of population. Focuses on the social aspects of the demographic processes of fertility, mortality, and migration. Also examines population change in Western Europe historically, recent demographic changes in Third World countries, population policy, and the social and environmental causes and implications of changes in births, deaths, and migration. (Same as Environmental Studies 2332 \{222\} and Sociology 2222 \{222\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.

## 2229 c - ESD, IP. Global Pentecostalism: The Roots and Routes of Twentieth-Century Christianity. Spring 2014. Judith Casselberry.

Seminar. Pentecostalism is a form of Christianity centered on the gifts of the Holy Spirit. Pentecostals speak in tongues, heal, prophesize, see visions, and exorcise demons. By many accounts, Pentecostalism is the fastest growing religion in the world. While the Pentecostal population is difficult to count, current estimates place the world's total number of adherents at close to 600 million, of whom $75 \%$ are women. With particular attention to its intersections with gender, ethnicity, and class, explores the religion's appeal; its impact on devotees' lives; and resultant local, regional, and global implications. Case studies include the Americas, the Caribbean, and Africa. (Same as Africana Studies 2235 \{242\} and Religion 2247 \{247\}.)

2234 \{234\} c. Romantic Sexualities. Spring 2014. David Collings.
Investigates constructions of sexuality in English romantic writing. Examines tales of seduction by supernatural or demonic figures; the sexualized world of the Gothic; the Byronic hero; lyrical depictions of incest; the yearning for an eroticized muse or goddess; and samesex desire in travel writing, diaries, and realist fiction. Discusses the place of such writing in the history of sexual identities, repression, the unconscious, and the sublime. Authors may include Burke, Lewis, Mary Shelley, Byron, Wollstonecraft, Lister, Austen, Coleridge, Keats, and Percy Shelley, with further readings in queer theory and the history of sexuality. (Same as English 2351 \{236\} and Gay and Lesbian Studies 2351 \{236\}.).

Prerequisite: One first-year seminar or course numbered 1100-1999 \{101-199\} in English or gender and women's studies, or Gay and Lesbian Studies 2001 \{201\}.
[2246 \{263\} c - ESD. Only a Game? Sports and Leisure in Europe and America. (Same as History $2560\{240\}$. .]
2247 \{247\} c. Modernism/Modernity. Fall 2013. Marilyn Reizbaum.
Examines the cruxes of the "modern," and the term's shift into a conceptual category rather than a temporal designation. Although not confined to a particular national or generic rubric, takes British works as a focus. Organized by movements or critical formations of the modern, i.e., modernisms, psychoanalysis, postmodernism, cultural critique. Readings of critical literature in conjunction with primary texts. Authors/directors/works may include T. S. Eliot, Joyce's Dubliners, Lawrence's Sons and Lovers, Sontag's On Photography, W. G. Sebald's The Natural History of Destruction, Ian McEwen's Enduring Love, Stevie Smith, Kureishi's My Son the Fanatic, and Coetzee's Disgrace. (Same as English 2451 \{245\} and Gay and Lesbian Studies 2451 \{245\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English, gay and lesbian studies, or gender and women's studies.

2248 \{248\} c - ESD. Family and Community in American History, 1600-1900. Fall 2014. Sarah McMahon.

Examines the social, economic, and cultural history of American families from 1600 to 1900, and the changing relationship between families and their kinship networks, communities, and the larger society. Topics include gender relationships; racial, ethnic, cultural, and class variations in family and community ideals, structures, and functions; the purpose and expectations of marriage; philosophies of child-rearing; organization of work and leisure time; and the effects of industrialization, urbanization, immigration, and social and geographic mobility on patterns of family life and community organization. (Same as History 2128 \{248\}.)

2250 \{246\} b. Activist Voices in India. Fall 2013. Sara Dickey.
Examines contemporary social and political activism in India. Focuses on film, essays, and fiction to investigate the ways that political messages are constructed through different media and for specific audiences. Case studies include activism concerning religious conflict, gender inequalities, gay and lesbian identities, and environmental issues. (Same as Anthropology 2647 \{248\}, Asian Studies 2562 \{248\}, and Film Studies 2248 \{248\}.)

Prerequisite: Anthropology 1101 \{101\} or Sociology 1101 \{101\}, and one previous course on contemporary South Asian societies from the following: Anthropology 1138 \{138\} (same as Asian Studies 1625 \{138\}); Anthropology 2601 \{232\} (same as Asian Studies 2561 \{247\}); Anthropology 2643 \{243\} (same as Asian Studies $2560\{232\}$ ); Asian Studies 2501 \{289\} (same as Gender and Women's Studies 2289 \{289\} and Religion 2289 \{289\}); History 1038 $\{26\}$ (same as Asian Studies $1035\{26\}$ ); History 2341 \{282\} (same as Asian Studies 2580 $\{236\}$ ); History $2342\{261\}$ (same as Asian Studies $2581\{256\}$ ); History $2343\{263\}$ (same as Asian Studies $2582\{258\}$ ); History $2344\{280\}$ (same as Asian Studies $2230\{230\}$ ); History 2801 \{259\} (same as Asian Studies 2583 \{237\} and Gender and Women's Studies 2259 \{259\}); History 2809 \{241\} (same as Asian Studies 2239 \{239\}); Religion 2219 \{219\} (same as Asian Studies $2550\{219\}$ ); Religion 2221 \{221\} (same as Asian Studies 2553 \{241\}); Religion 2222 \{222\} (same as Asian Studies 2554 \{242\}); Sociology 2227 \{227\} (same as Africana Studies 2227 \{227\} and Asian Studies $2840\{263\}$ ); Sociology $2236\{236\}$ (same as Asian Studies $2570\{233\}$ ); or permission of the instructor.

2251 \{251\} c - ESD. Women in American History, 1600-1900. Spring 2014. Sarah McMahon.
A social history of American women from the colonial period through the nineteenth century. Examines women's changing roles in both public and private spheres; the circumstances of women's lives as these were shaped by class, ethnic, and racial differences; the recurring conflict between the ideals of womanhood and the realities of women's experience; and focuses on family responsibilities, paid and unpaid work, religion, education, reform, women's rights, and feminism. (Same as History 2126 \{246\}.)

## 2252 \{252\} c. American Intimacies: Sex and Love in Nineteenth-Century Literature.

 Spring 2014. Peter Coviello.Homosexuality and its conceptual twin, heterosexuality, are surprisingly late coinages. So what was sex like before such concepts organized the sphere of intimate life in America? Was it a set of bodily practices? An aspect of a person's identity? Was sexuality something an individual could be said to possess? What forms of contact, invest attachment, or imagination could even be counted as sex, and why? Authors may include Whitman, Thoreau, Jewett, Melville, Hawthorne, James, Douglas, Dickinson, and Joseph Smith. Note: This course fulfills the literature of the Americas requirement for English majors. (Same as English 2502 \{252\} and Gay and Lesbian Studies 2502 \{252 $\}$.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
$2256\{256\}$ c - ESD. Gender, Body, and Religion. Spring 2016. Elizabeth Pritchard.
A significant portion of religious texts and practices is devoted to the disciplining and gendering of bodies. Examines these disciplines including ascetic practices, dietary restrictions, sexual and purity regulations, and boundary maintenance between human and divine, public and private, and clergy and lay. Topics include desire and hunger, abortion, women-led religious movements, the power of submission, and the related intersections of race and class. Materials are drawn from Christianity, Judaism, Neopaganism, Voudou, and Buddhism. (Same as Religion 2253 \{253\}.)
[2259 \{259\} c - ESD, IP. Sex and the Politics of the Body in Modern India. (Same as Asian Studies $2583\{237\}$ and History 2801 \{259\}.)]
[2265 \{265\} b. Gender and Family in East Asia. (Same as Asian Studies 2101 \{264\} and Sociology 2265 \{265\}.)]
$2266\{266\}$ c - IP. Chinese Women in Fiction and Film. Spring 2015. Shu-chin Tsui.
Approaches the subject of women and writing in twentieth- and early twenty-first-century China from perspectives of gender studies, literary analysis, and visual representations. Considers women writers, filmmakers, and their works in the context of China's socialpolitical history as well as its literary and visual traditions. Focuses on how women writers and directors negotiate gender identity against social-cultural norms. Also constructs a dialogue between Chinese women's works and Western feminist assumptions. (Same as Asian Studies 2073 \{266\} and Film Studies 2266 \{266\}.)
2270 \{270\} c - ESD. Spirit Come Down: Black Women and Religion. Spring 2015. Judith Casselberry.

Explores issues of self-representation, memory, material culture, embodiment, and civic and political engagement through autobiographical, historical, literary, anthropological, cinematic, and musical texts. Primarily focused on Christian denominations: Methodist, Baptist, and

Pentecostal. Examines the religious lives of black women in nineteenth- and twentieth-century America. (Same as Africana Studies 2271 \{271\} and Religion 2271 \{271\}.)

## 2277 \{277\} - MCSR. Applied Research Practicum: Chinese Rural to Urban Migration.

 Spring 2014. Rachel Connelly.Highlights applied research methods in microeconomics. Students work throughout the semester in research teams to analyze data from Chinese rural women on their migration and/ or the migration of their husbands. While topics of Chinese economic life and economic models of migration are studied, primarily focuses on methods: how applied researchers work with data to analyze a set of questions. Elementary statistics is a prerequisite. Statistical techniques beyond the elementary level are taught. (Same as Asian Studies $2090\{269\}$ and Economics 2277 \{277\}.)
Prerequisite: Economics $1101\{101\}$ and one of the following statistics courses: Economics $2557\{257\}$, Mathematics $1200\{155\}$ or $2606\{265\}$, Psychology $2520\{252\}$, or Sociology $2010\{201\}$; or permission of the instructor.
$2282\{282\}$ c - ESD. Gender, Sexuality, and Schooling. Fall 2014. Doris Santoro.
Schools are sites where young people learn to "do" gender and sexuality through direct instruction, the hidden curriculum, and peer-to-peer learning. In schools, gender and sexuality are challenged, constrained, constructed, normalized, and performed. Explores instructional and curricular reforms that have attempted to address students' and teachers' sexual identities and behavior. Examines the effects of gender and sexual identity on students' experience of school, their academic achievement, and the work of teaching. Topics may include Compulsory Heterosexuality in the Curriculum; the Gender of the Good Student and Good Teacher; Sex Ed in an Age of Abstinence. (Same as Education $2212\{212\}$ and Gay and Lesbian Studies 2120 \{212\}.)
Prerequisite: One of the following: Education 1101 \{101\}, Gay and Lesbian Studies 2001 $\{201\}$, or Gender and Women's Studies 1101 \{101\}.
$2426\{287\}$ c. The Horror Film in Context. Fall 2013. Aviva Briefel.
Examines the genre of the horror film in a range of cultural, theoretical, and literary contexts. Considers the ways in which horror films represent violence, fear, and paranoia; their creation of identity categories; their intersection with contemporary politics; and their participation in such major literary and cinematic genres as the gothic, comedy, and family drama. Texts may include works by Craven, Cronenberg, De Palma, Freud, Hitchcock, Kristeva, Kubrick, Poe, Romero, and Shelley. (Same as English 2426 \{289\}, Film Studies 2426 \{287\}, and Gay and Lesbian Studies 2426 \{287\}.)

Prerequisite: One of the following: one first-year seminar or course numbered 1100-1999 \{100-199\} in English or gender and women's studies; or Film Studies 1101 \{101\}, 2201 $\{201\}$, or $2202\{202\}$.

## $2510\{220\}$ c - IP, VPA. Soviet Worker Bees, Revolution, and Red Love in Russian Film. Fall 2014. Kristina Toland.

Explores twentieth-century Russian society through critical analysis of film, art, architecture, music, and literature. Topics include scientific utopias, eternal revolution, individual freedom versus collectivism, conflict between the intelligentsia and the common man, the "new Soviet woman," nationalism, the thaw and double-think, stagnation of the 1970s, post-glasnost sexual liberation, and black hole post-soviet film. Works of Eisenstein, Vertov, Pudovkin,

Tarkovsky, Kandinsky, Chagall, Mayakovsky, Bulgakov, Pasternak, Brodsky, Akhmatova, Solzhenitsyn, Petrushevskaya, and Tolstaya. Weekly film viewings. Russian majors are required to do some reading in Russian. Note: May be counted toward a minor in film studies. (Same as Russian 2221 \{221\}.)
$2600\{275\}$ b. Gender and Sexuality in Contemporary Eastern Europe. Spring 2014. Kristen Ghodsee.

Seminar. Examines the current scholarship on gender and sexuality in modern Eastern Europe: the countries of the former Soviet Union, the successor states of Yugoslavia, Poland, Hungary, Romania, the Czech Republic, Slovakia, Bulgaria, and Albania. Focusing on research produced by academics based in the region, examines the dialogue and interchange of ideas between East and West, and how knowledge about the region is dialectically produced by both Western feminists and East European gender studies scholars. Topics include the women question before 1989; nationalism, fertility, and population decline; patterns and expectations for family formation; the politics of European Union gender mainstreaming; visual representations in television and film; social movements; work; romance and intimacy; spirituality; and the status of academic gender studies in the region. (Same as Gay and Lesbian Studies $2600\{275\}$.)
Prerequisite: Gender and Women's Studies 1101 \{101\}.
2601 \{249\} c. History of Women's Voices in America. Spring 2015. Sarah McMahon.
Seminar. Examines women's voices in America from 1650 to the twentieth century, as these emerged in private letters, journals, and autobiographies; poetry, short stories, and novels; essays, addresses, and prescriptive literature. Readings from the secondary literature provide a historical framework for examining women's writings. Research projects focus on the form and content of women's literature and the ways that it illuminates women's understandings, reactions, and responses to their historical situation. (Same as History 2609 \{249\}.)
Prerequisite: One course in history.
$2606\{240\}$ b. Radical Politics, Radical Families. Fall 2013. Kristen Ghodsee.
Seminar. Women's emancipation and sexual freedom were common themes among utopian socialists, anarchists, and other radical left communities in the United States and Europe in the nineteenth and twentieth centuries. Sexual equality was also a bedrock principle of "scientific socialist" and communist societies throughout the twentieth century. Explores how a variety of communalist ideologies re-imagined the shape of the family and the gender relations between men and women. Examines the theoretical foundations and practical implications of sexual equality through a detailed history of a wide variety of ideological movements, including Owenism, anarchism, utopian socialism, scientific socialism, and "really-existing" socialism in the twentieth century. Special attention paid to the ongoing tensions between theory and practice.

## 2607 c. The Monstrosity of Revolution: Radicalism and Reaction in British Literature, 1789-1834. Spring 2014. David Collings.

Seminar. Examines the rise of and responses to radical writing in the wake of the French Revolution, with a particular focus on the many contexts informing the novel Frankenstein. Focuses on the emergence of feminist critique, radical fiction, philosophical anarchism, and the poetics of non-violent resistance, as well as the defense of tradition and the depiction of revolution as monstrosity. Discusses such authors as Burke, Wollstonecraft, Godwin,

Rousseau, and Percy and Mary Shelley in tandem with contemporary critical essays. (Same as English 2007.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English or gender and women's studies.
2970-2973 \{291-294\}. Intermediate Independent Study in Gender and Women's Studies. The Program.

2999 \{299\}. Intermediate Collaborative Study in Gender and Women's Studies. The Program.
[ 3001 \{ 344$\}$ c. Bad Girls on Stage in Early Modern Spain and Spanish America. (Same as Latin American Studies 3244 \{344\} and Spanish 3244 \{344\}.)]

3019 \{370\} c. Jane Austen and Company. Fall 2013. Ann Kibbie.
Seminar. Examines Austen's major works, from Northanger Abbey to Persuasion, by pairing each novel either with a work by one of her major literary influences (such as Frances Burney's Evelina and Ann Radcliffe's The Romance of the Forest), or with a later work (such as Charlotte Brontë's Jane Eyre) that responds to and challenges Austen's own novelistic practice. Will also examine major currents in Austen criticism. (Same as English 3020 \{370\}.)

Prerequisite: One course numbered 2000-2969 \{200-289\} in English or permission of the instructor.
$3100\{313\}$ b - ESD, IP. Global Sexualities/Local Desires. Fall 2013. Krista Van Vleet.
Explores the variety of practices, performances, and ideologies of sexuality through a crosscultural perspective. Focusing on contemporary anthropological scholarship on sexuality and gender, asks how Western conceptions of "sexuality," "sex," and "gender" help (or hinder) our understanding of the lives and desires of people in other social and cultural contexts. Topics may include "third gendered" individuals; intersexuality and the naturalization of sex; language and the performance of sexuality; drag; global media and the construction of identity; lesbian and gay families; sex work; AIDS and HIV and health policy; migration, asylum and human rights issues; ethical issues and activism. Ethnographic examples are drawn from United States, Latin America (Brazil, Dominican Republic, Mexico, Argentina, Cuba); Asia (India, Japan, Indonesia) and Oceania (Papua New Guinea); and Africa (Nigeria, South Africa). Presents issues of contemporary significance along with key theoretical perspectives and methodological approaches used by anthropologists. Integrates perspectives on globalization and the intersection of multiple social differences (including class, race, and ethnicity) with discussion of sexuality and gender. Not open to students who have credit for Anthropology $2110\{210\}$ (same as Gay and Lesbian Studies $2110\{210\}$ and Gender and Women's Studies $2210\{210\}$ ). (Same as Anthropology $3100\{313\}$, Gay and Lesbian Studies 3100 \{313\}, and Latin American Studies 3711 \{311\}.)

Prerequisite: Anthropology $1101\{101\}$ or Sociology $1101\{101\}$, or permission of the instructor.
3103 c. Gender, Sexuality, and Popular Music. Spring 2014. Tracy McMullen.
Employs gender as a theoretical tool to investigate the production, consumption, and representation of popular music in the United States and around the world. Examines how gender and racial codes have been used historically, for example to describe music as "authentic" (rap, rock) or "commercial" (pop, new wave), and at how these codes may have traveled, changed, or re-appeared in new guises over the decades. Considers how gender
and sexuality are inscribed at every level of popular music as well as how music-makers and consumers have manipulated these representations to transgress normative codes and open up new spaces in popular culture for a range of sexual and gender expressions. Juniors and seniors only; sophomores admitted with consent of the instructor during the add/drop period. (Same as Music 3103.)

3202 \{358\} c - ESD, VPA. Music, Memory, and Identity. Spring 2015. Tracy McMullen.
Explores how music relates to nostalgia, identity creation, repetition, memory, history, embodiment and "liveness" in the postmodern era. Traces the ways race, gender, sexuality, and class are performed through music. Music examined ranges from classical and jazz to "world music" and pop. Artists/bands examined may include Thelonious Monk, Duke Ellington, Louis Armstrong, Genesis, Led Zeppelin, Beethoven, Palestrina, and their various tributes and revivals. Authors may include Baudrillard, Boym, Butler, DeNora, Freud, Gates, Goehr, hooks, Huyssen, Jameson, Sterne, and Taruskin. Primarily intended for juniors and seniors with experience in critical and cultural studies. Sophomores admitted with consent of instructor during the add/drop period. (Same as Music 3102 \{358\}.)

3301 \{301\} b. Doing Gender Studies: Ethnographies of Gender. Spring 2014. Kristen R. Ghodsee.

Explores how research and scholarship on gender can be an engine for social change. Students learn how to use the different "tools" of the scholar: interviews, surveys, oral history, archival research, participant observation, and discourse analysis. Through a semester-long research project, each student has a hands-on experience of designing and implementing an in-depth study on the gender issue of the student's choice. Open to gender and women's studies majors and minors, or with permission of the instructor.
$3302\{302\}$ b. The Economics of the Family. Fall 2013. Rachel Connelly.
Seminar. Microeconomic analysis of the family-gender roles and related institutions. Topics include marriage, fertility, married women's labor supply, divorce, and the family as an economic organization. (Same as Economics 3531 \{301\}.)

Prerequisite: Economics $2555\{255\}$ and Economics 2557 \{257\}, or permission of the instructor.
[3310 \{310\} c. Gay and Lesbian Cinema. (Same as Film Studies $3310\{310\}$ and Gay and Lesbian Studies 3310 \{310\}.)]

3316 \{316\} c. Dressing and Undressing in Early Modern Spain. Fall 2013. Margaret Boyle.
Focuses on the literal and metaphorical practices of "dressing" and "undressing" as depicted in the literature of Early Modern Spain. Considers how these practices relate to the (de) construction of Gender and Empire throughout the period. What does dress have to do with identity and power? What might nakedness reveal about ideal and defective bodies? These questions will be enriched through exploration of a series of images in collaboration with the Bowdoin College Museum of Art. Authors considered during the semester include Fernando de Rojas, Miguel de Cervantes, María de Zayas, Teresa de Jesús, Tirso de Molina, and Ana Caro. (Same as Spanish 3246 \{346\}.)

Prerequisite: Two of the following: Spanish 2409 \{209\} (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.

3323 \{323\} c. Voices of Women, Voices of the People. Spring 2014. Hanétha Vété-Congolo.
Focuses on texts written by women from former West Africa and the Caribbean. Themes treated-womanhood, colonization, slavery, race, individual and collective identity, relationships between men and women, independence, tradition, modernism, and alienationare approached from historical, anthropological, political, social, and ideological perspectives. Readings by Mariama Bâ, Aminata Sow Fall (Sénégal); Tanella Boni (Côte d'Ivoire); Maryse Condé, Gisèle Pineau, Simone Schwartz-Bart (Guadeloupe); Ina Césaire, Fabienne Kanor, Suzanne Dracius (Martinique); and Marie Chauvet, Marie-Célie Agnant, and Kettly Mars (Haïti). (Same as Africana Studies 3201 \{321\}, French 3201 \{322\}, and Latin American Studies 3222 \{322 $\}$.)
Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies $2407\{206\}$ ) or 2408 \{208\}; French $2409\{209\}, 2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.
[ 3346 \{346\} c. Philosophy of Gender: Sex and Love. (Same as Gay and Lesbian Studies 3346 \{346\} and Philosophy 3346 \{346\}.)]

4000-4003 \{401-404\}. Advanced Independent Study in Gender and Women's Studies. The Program.
4029 \{405\}. Advanced Collaborative Study in Gender and Women's Studies. The Program. 4050-4051. Honors Project in Gender and Women's Studies. The Program.

## German

Jill S. Smith, Department Chair<br>Tammis L. Donovan, Department Coordinator<br>Professor: Steven R. Cerf<br>Associate Professors: Jill S. Smith, Birgit Tautz<br>Teaching Fellow: Susanne Matejka

The German department offers courses in the language, literature, and culture of the German-speaking countries of Europe. The program is designed for students who wish to become literate in the language and culture, comprehend the relationship between the language and culture, and gain a better understanding of their own culture in a global context. The major is a valuable asset in a wide variety of postgraduate endeavors, including international careers, and law and graduate school.

## Requirements for the Major in German

The major consists of eight courses, one of which is German 2204 \{204\} or the equivalent. One course may be chosen from 1151-1156 \{151-156\} and the others from 2205-4001 $\{205-402\}$. All majors are required to do course work with the department in their senior year; the configuration of this senior work must be determined in direct consultation with the department. This consultation takes place prior to registering for the fall semester of senior year, which for some students means before they depart for study away. Prospective majors, including those who begin with first- or second-year German at Bowdoin, may arrange an
accelerated program, usually including study abroad. Majors are encouraged to consider a number of study-abroad programs with different calendars and formats.

## Requirements for the Minor in German

The minor consists of German $1102\{102\}$ or the equivalent, plus any four courses, of which two must be in the language (2203-2289 \{203-289\} and 3300-3999 \{300-399\}).

Courses that will count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail).

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
[ 1027 \{27\} c. From Flowers of Evil to Pretty Woman: Prostitutes in Modern Western Culture. (Same as Gay and Lesbian Studies 1027 \{27\} and Gender and Women's Studies 1027 \{27\}.)]

## German Literature and Culture in English Translation

$1151\{151\}$ c - ESD. The Literary Imagination and the Holocaust. Fall 2013. Steven Cerf.
An examination of the literary treatment of the Holocaust, a period between 1933 and 1945, during which eleven million innocent people were systematically murdered by the Nazis. Four different literary genres are examined: the diary and memoir, drama, poetry, and the novel. Three basic sets of questions are raised by the course: How could such slaughter take place in the twentieth century? To what extent is literature capable of evoking this period and what different aspects of the Holocaust are stressed by the different genres? What can our study of the Holocaust teach us with regard to contemporary issues surrounding totalitarianism and racism? No knowledge of German is required. (Same as Film Studies 1151 \{151\}.)
1152 \{152\} c - IP, VPA. Berlin: Sin City, Divided City, City of the Future. Spring 2014. Jill Smith.

An examination of literary, artistic, and cinematic representations of the city of Berlin during three distinct time periods: the "Roaring '20s," the Cold War, and the post-Wall period. Explores the dramatic cultural, political, and physical transformations that Berlin underwent during the twentieth century and thereby illustrates the central role that Berlin played, and continues to play, in European history and culture, as well as in the American cultural imagination. For each time period studied, compares Anglo-American representations of Berlin with those produced by German artists and writers, and investigates how, why, and to what extent Berlin has retained its status as one of the most quintessentially modern cities in the world. No knowledge of German is required. (Same as Film Studies 1152 \{152\}.)

## Language and Culture Courses

1101 \{101\} c. Elementary German I. Every fall. Fall 2013. Jill Smith.
German $1101\{101\}$ is the first course in German language and culture and is open to all students without prerequisite. Facilitates an understanding of culture through language. Introduces German history and cultural topics. Three hours per week. Acquisition of four skills: speaking and understanding, reading, and writing. One hour of conversation and practice with teaching assistant. Integrated Language Media Center work.
$1102\{102\}$ c. Elementary German II. Every spring. Spring 2014. Steven Cerf.
Continuation of German 1101 \{101\}. Equivalent of German 1101 \{101\} is required.
$2203\{203\}$ c. Intermediate German I: Germany within Europe. Every fall. Fall 2013. Steven Cerf.

Continued emphasis on the understanding of German culture through language. Focus on social and cultural topics through history, literature, politics, popular culture, and the arts. Three hours per week of reading, speaking, and writing. One hour of discussion and practice with teaching assistant. Language Media Center also available. Equivalent of German 1102 $\{102\}$ is required.

2204 \{204\} c. Intermediate German II: German History through Visual Culture. Every spring. Spring 2014. Birgit Tautz.
Continuation of German $2203\{203\}$. Equivalent of German $2203\{203\}$ is required.
$2205\{205\}$ c - IP. Advanced German Texts and Contexts. Every year. Fall 2013. Birgit Tautz.

Designed to explore aspects of German culture in depth, to deepen the understanding of culture through language, and to increase facility in speaking, writing, reading, and comprehension. Topics include post-war and/or post-unification themes in historical and cross-cultural contexts. Particular emphasis on post-1990 German youth culture and language. Includes fiction writing, film, music, and various news media. Weekly individual sessions with the Teaching Fellow from the Johannes-Gutenberg-Universität-Mainz. Equivalent of German $2204\{204\}$ is required.
2970-2973 \{291-294\} c. Intermediate Independent Study in German. The Department.
2999 \{299\} c. Intermediate Collaborative Study in German. The Department.

## Literature and Culture Courses

All courses require the equivalent of German 2204 \{204\}.
3308 \{308\} c-IP. Introduction to German Literature and Culture. Spring 2014. Jill Smith.
Designed to be an introduction to the critical reading of texts by genre (e.g., prose fiction and nonfiction, lyric poetry, drama, opera, film) in the context of German intellectual, political, and social history. Focuses on various themes and periods. Develops students' sensitivity to generic structures and introduces terminology for describing and analyzing texts in historical and cross-cultural contexts. Weekly individual sessions with the Teaching Fellow from the Johannes-Gutenberg-Universität-Mainz. All materials and coursework in German.
3313 \{313\} c - IP. German Classicism. Fall 2013. Birgit Tautz.
Focus on the mid- to late eighteenth century as an age of contradictory impulses (e.g., the youthful revolt of Storm and Stress against the Age of Reason). Examines manifestations of such impulses-e.g., ghosts, love, and other transgressions-in the works of major (e.g., Goethe, Schiller) and less well-known (e.g., Karsch, Forster) authors. Beginning with discussions of transparency, examines the ghostly and spiritual moments of "Faustian bargains" (Goethe's Urfaust); transgressive desires in poetry, travel texts, and love letters as well as in secret societies; and concludes with emergent, phantasmic technologies (Schiller's Geisterseher) and manifestations of the irrational in nature's chaos (Kleist Das Erdbeben in Cbill). Investigation of texts in their broader cultural context with appropriate theory and illustrated
through film and drama on video, statistical data, developments in eighteenth-century dance, music, and legal discourse. All materials and course work in German.
[3314 \{314\} c - IP. German Romanticism.]
[3315 \{315\} c - IP. Realism and Revolution in Nineteenth-Century German Literature and Culture.]
[3316 \{316\} c - IP. German Modernism—Urbanity, Interiority, Sexuality. ]
[3317 \{317\} c - IP. German Literature and Culture since 1945.]
3390-3399 \{390-399\}. Seminar in Aspects of German Literature and Culture.
Work in a specific area of German culture not covered in other departmental courses, e.g., individual authors, movements, genres, cultural influences, and historical periods.
3392 \{392\} c - IP. Das deutsche Lustspiel. Spring 2014. Steven Cerf.
An examination of selected masterworks of the rare and problematic German-language comedy from the Enlightenment to Post-Unification in historical and cultural contexts. Particular attention is paid to the comedic works of Lessing, Kleist, Wagner, Hofmannsthal, Zuckmayer, Dürrenmatt and Levy. Three questions are posed: (1) Why are there so few German literary comedies? (2) How did German comedic writers-with their attention to psychological, historical, and sociological detail-form their own tradition in which they responded to each other over two centuries? (3) To what extent did writers from other cultures inspire German comedic playwrights? In addition to a close reading of texts, filmed stage productions and cinematic adaptations are examined. All materials and coursework in German.
[3394 \{394\} c. Contemporary Austrian Literature, Drama, and Film.]
[3395 \{395\} c - IP. Myths, Modernity, Media. (Same as Film Studies 3395 \{395\}.)]
3397 \{397\} c - IP. Global Germany? Fall 2013. Jill Smith.
The fall of the Berlin Wall and the concomitant end of the Cold War ushered in what many cultural critics call "the era of globalization." An exploration of how contemporary German culture (1990-present) grapples with both the possibilities and uncertainties presented by globalization. Examines a myriad of cultural texts-films, audio plays, dramas, short fiction, novels, photographs, websites-as well as mass events (i.e., the Love Parade, the 2006 World Cup) within their political, social, and economic contexts to show how Germany's troubled past continues to affect the role it plays on the global stage and how its changing demographics-increased urbanization and ethnic diversity—have altered its cultural and literary landscape. Critically considers issues such as migration, terrorism and genocide, sex tourism, the formation of the European Union and the supposed decline of the nation-state. Frequent short writings, participation in debates, and a final research project based upon a relevant topic of individual interest are required. All materials and course work in German.
4000-4003 \{401-404\} c. Advanced Independent Study in German. The Department.
$4029\{405\}$ c. Advanced Collaborative Study in German. The Department.
4000-4003 \{401-404\} c. Honors Project in German. The Department.

# Government and Legal Studies 

Michael M. Franz, Department Chair<br>Lynne P. Atkinson, Department Coordinator<br>Professors: Paul N. Franco $\dagger$, Janet M. Martin, Richard E. Morgan*, Christian P. Potholm, Andrew C. Rudalevige, Allen L. Springer**, Jean M. Yarbrough<br>Associate Professors: Michael M. Franz, Laura A. Henry, Henry C. W. Laurence (Asian Studies) Assistant Professors: Ericka A. Albaugh, Barbara Elias, Christopher Heurlin (Asian Studies), Jeffrey S. Selinger $\dagger$<br>Lecturers: George S. Isaacson, DeWitt John (Environmental Studies)<br>Visiting Faculty: Shilo Brooks, Marc R. Scarcelli

## Requirements for the Major in Government and Legal Studies

Courses within the department are divided into four fields:
American politics: Government $1000\{21\}, 1001\{25\}, 1002\{27\}, 1037\{11\}, 1100\{150\}, 2000$ $\{201\}, 2005\{202\}, 2010\{204\}, 2015\{215\}, 2020\{210\}, 2021\{211\}, 2030\{206\}, 2035$ $\{216\}, 2055\{203\}, 2060\{205\}, 2070\{208\}, 2080\{255\}, 3000\{303\}, 3010\{304\}, 3020$ $\{308\}, 3025\{312\}$, and $3030\{309\}$.

Comparative politics: Government $1020\{19\}$ (same as Asian Studies $1045\{19\}$ ), 1025 \{18\}, $1026\{20\}, 1027\{23\}, 1400\{120\}, 2400\{224\}, 2405\{288\}, 2408\{221\}, 2410\{230\}, 2440$ $\{227\}$ (same as Asian Studies $2060\{227\}$ ), $2445\{286\}$ (same as Asian Studies $2860\{280\}$ ), $2450\{232\}$ (same as Asian Studies $2320\{282\}$ ), $2480\{239\}, 2482\{283\}, 2484\{235\}$ (same as Environmental Studies $2306\{236\}), 2486\{231\}, 2500\{225\}, 2520\{226\}, 2525\{273\}$, $2530\{222\}$ (same as Africana Studies $2530\{222\}$ ), $2540\{272\}$ (same as Asian Studies 2061 $\{265\}$ ), $2545\{234\}$ (same as Asian Studies 2821 \{234\}), $2570\{220\}, 2572\{237\}, 2573$ $\{285\}, 2574\{275\}, 2576\{268\}, 2578\{236\}, 2580\{233\}, 3400\{332\}$ (same as Asian Studies $3300\{332\}$ ), $3410\{333\}$ (same as Asian Studies $3060\{333\}$ ), $3500\{321\}, 3510\{324\}, 3520$ $\{325\}, 3530\{327\}, 3540\{330\}, 3550\{337\}$ (same as Asian Studies $3810\{337\}$ ), $3560\{336\}$, and $3590\{359\}$.

Political theory: Government 1011 \{26\}, $1012\{28\}, 1016\{29\}, 2200\{240\}, 2210\{241\}, 2220$ $\{244\}, 2230\{250\}, 2260\{245\}, 2270\{246\}, 2280\{249\}, 2800\{243\}, 3200\{341\}, 3210$ $\{342\}, 3220\{346\}$.

International relations: Government $1025\{18\}, 1026\{20\}, 1027\{23\}, 1030\{10\}, 1037\{11\}$, $1600\{160\}, 2500\{225\}, 2520\{226\}, 2525\{273\}, 2530\{222\}$ (same as Africana Studies $2530\{222\}$ ), $2540\{272\}$ (same as Asian Studies $2061\{265\}$ ), $2545\{234\}$ (same as Asian Studies $2821\{234\}), 2570\{220\}, 2572\{237\}, 2573\{285\}, 2574\{275\}, 2576\{268\}, 2578$ $\{236\}, 2580\{233\}, 2600\{260\}, 2615\{263\}$ (same as Environmental Studies $2308\{263\}$ ), $2650\{265\}, 2670\{270\}, 2680\{261\}, 2683\{279\}, 2687\{287\}, 2689\{269\}$ (same as Environmental Studies $2369\{269\}$ ), $2800\{243\}, 3500\{321\}, 3510\{324\}, 3520\{325\}, 3530$ $\{327\}, 3540\{330\}, 3550\{337\}$ (same as Asian Studies $3810\{337\}$ ), $3560\{336\}, 3590\{359\}$, $3600\{361\}$, and $3610\{363\}$ (same as Environmental Studies 3963 \{363\}).

Every major is expected to complete an area of concentration in one of these fields.
The major consists of nine courses, with no more than two taken at Level A, and no more than one of these a first-year seminar, distributed as follows:

1. A field of concentration, selected from the above list, in which at least four courses including one Level C course and no more than one Level A course are taken.
2. At least one course in each of the three fields outside the field of concentration. These courses may be at Levels A, B, or C, though only two Level A courses may count toward the major and no more than one of these may be a first-year seminar.
3. Government 2920 \{264\} (same as Environmental Studies 2309 \{264\}), $2930\{284\}, 2940$ \{219\} (same as Education $2250\{250\}$ ), $3900\{393\}$ (same as Asian Studies $3550\{344\}$ and Religion $3344\{344\}$ ), $3910\{395\}$ (same as Environmental Studies $3995\{395\}$ ), and Environmental Studies $2304\{240\}$, while not fulfilling the requirement for any of the four fields of concentration, may be counted toward the total number of courses required for the major or minor.
4. Students seeking to graduate with honors in government and legal studies must petition the department. Interested students should contact the honors director for specific details. Students must prepare an honors paper, which is normally the product of two semesters of independent study work, and have that paper approved by the department. One semester of independent study work may be counted toward the nine-course departmental requirement and the four-course field concentration. Students who hope to graduate with honors in government and legal studies thus normally must complete at least ten courses in the department.
5. To fulfill the major/minor requirements, a grade of C - or better must be earned in a course. Courses used to fulfill major/minor requirements must be taken for regular letter grades (not Credit/D/Fail).

## Requirements for the Minor in Government and Legal Studies

A minor in government and legal studies consists of five courses from at least three of the departmental fields. No more than two Level A courses, with no more than one of these a first-year seminar, may count toward the minor.

## Level A Courses

## First-Year Seminars

All first-year seminars offered by the department are designed to provide an introduction to a particular aspect of government and legal studies. Students are encouraged to analyze and discuss important political concepts and issues, while developing research and writing skills.

Regisration is limited to sixteen first-year students in each first-year seminar. For descriptions, see First-Year Seminars, pages 157-168.
[ 1000 \{21\} b. Citizenship and Representation in American Politics.]
1001 \{25\} b. Representation, Participation, and Power in American Politics. Fall 2013. Janet M. Martin.

1002 \{27\} b. Political Leadership. Fall 2013. Andrew C. Rudalevige.
1011 \{26\} b. Fundamental Questions: Exercises in Political Theory. Fall 2013. Jean M. Yarbrough.
[1012 \{28\} b. Human Being and Citizen.]
1016 \{29\} b. How to Rule the World. Fall 2013. Shilo Brooks.
$1025\{18\}$ b. NGOs in Politics. Fall 2013. Laura A. Henry.
1026 \{20\} b. Global Media and Politics. Fall 2013. Henry C. W. Laurence.
$1030\{10\}$ b. The Pursuit of Peace. Fall 2013. Allen L. Springer.
1037 \{11\} b. The Korean War. Fall 2013. Christian P. Potholm.

## Introductory Lectures

These courses are intended for first-year students and sophomores. Others may take them only with the permission of the instructor.
$1100\{150\}$ b. Introduction to American Government. Spring 2014. Michael M. Franz.
Provides a comprehensive overview of the American political process. Specifically, traces the foundations of American government (the Constitution, federalism, civil rights, and civil liberties), its political institutions (Congress, Presidency, courts, and bureaucracy), and its electoral processes (elections, voting, and political parties). Also examines other influences, such as public opinion and the mass media, which fall outside the traditional institutional boundaries, but have an increasingly large effect on political outcomes.
$1400\{120\}$ b. Introduction to Comparative Government. Spring 2014. Ericka A. Albaugh.
Provides a broad introduction to key concepts in comparative politics. Most generally, asks why states are governed differently, both historically and in contemporary politics. Begins by examining foundational texts, including works by Marx, Smith, and Weber. Surveys subfields within comparative politics (the state, regime types, nations and nationalism, party systems, development, and civil society) to familiarize students with major debates and questions.
$1600\{160\}$ b. Introduction to International Relations. Fall 2013. Barbara Elias. Spring 2014. Marc R. Scarcelli.

Provides a broad introduction to the study of international relations (IR). Designed to strike a balance between empirical and historical knowledge and the obligatory theoretical understanding and schools of thought in IR. Designed as an introductory course to familiarize students with no prior background in the subject, and recommended for first- and second-year students intending to take upper-level international relations courses.

## Level B Courses

Level B courses are designed to introduce students to or extend their knowledge of a particular aspect of government and legal studies. The courses range from the more introductory to the more advanced. Students should consult the individual course descriptions regarding any prerequisites.

## [2000 \{201\} b. Law and Society.]

2005 \{202\} b. The American Presidency. Fall 2013. Andrew C. Rudalevige. Spring 2014. Janet M. Martin.
An examination of the presidency in the American political system, including the "road to the White House" (party nomination process and role of the electoral college), advisory systems, the institutional presidency, relations with Congress and the courts, and decision-making in the White House. In addition, the instructors draw from their own research interests. For Professor Martin these include presidential-congressional relations, the unilateral action of the President, the role of women as advisors within the White House and in the executive branch, and the influence of outside groups on the White House's consideration of issues. For

Professor Rudalevige these include presidents' inter-branch relations, with a recent emphasis on presidential efforts to manage the wider executive branch through administrative and unilateral tactics.
$2010\{204\}$ b. United States Congress. Fall 2013. Janet M. Martin.
An examination of the United States Congress, with a focus on members, leaders, constituent relations, the congressional role in the policy-making process, congressional procedures and their impact on policy outcomes, the budget process, and executive-congressional relations.

2015 \{215\} b. Public Administration. Spring 2014. Andrew C. Rudalevige.
We deal with public organizations every day—nearly 15 percent of the United States workforce operates within one-addressing concerns ranging from playground safety to the prevention of international terrorism. Explores how and why this vital part of government works the way it does in the American political context. What do public organizations do? How well do they do it? How are they (and how might they be) managed? How do they distribute resources, and under what constraints? How are they similar to or different from their private sector counterparts? Is "red tape" always a bad thing? Considering these questions, examines a variety of real-world cases; these might include the Cuban Missile Crisis, the response to Hurricane Katrina, or the implementation of No Child Left Behind. Underlying discussion will be the perpetual difficulty in reconciling organizational efficiency with democratic accountability.

2020 \{210\} b. Constitutional Law I. Every fall. Fall 2013. George S. Isaacson.
Examines the development of American constitutionalism, the power of judicial review, federalism, and separation of powers.

2021 \{211\} b. Constitutional Law II: Civil Rights and Liberties. Every spring. Spring 2014. Richard E. Morgan.

Examines questions arising under the First and Fourteenth Amendments.
Prerequisite: Government $2020\{210\}$.

## [2030 \{206\} b. Policy Development in the United States.]

2035 \{216\} b. Maine Politics. Fall 2013. Christian P. Potholm.
An analysis of politics in the state of Maine since World War II. Subjects covered include the dynamics of Republican and Democratic rivalries and the efficacy of the Independent voter, the rise of the Green and Reform parties, the growing importance of ballot measure initiatives, and the interaction of ethnicity and politics in the Pine Tree State. An analysis of key precincts and Maine voting paradigms is included, as well as a look at the efficacy of such phenomena as the north/south geographic split, the environmental movement, and the impact of such interest groups as SAM, the Tea Party, and the Roman Catholic Church. Students are expected to follow contemporary political events on a regular basis.

## [2055 \{203\} b. Political Parties in the United States.]

[2060 \{205\} b. Campaigns and Elections.]
$2070\{\mathbf{2 0 8 \}}$ b. Mass Media and American Politics. Fall 2013. Michael M. Franz.
Examines the role of the media as the "fourth branch" of government. Focuses first on the history of the media throughout American political development, and then examines the role of the media in contemporary politics. Is the media biased? How? What are the effects
of media coverage on citizens? How do we measure media effects? What is the interplay of politicians, citizens, and journalists? Spends considerable time on the development and impact of new media outlets.

## [2080 \{255\} b. Quantitative Analysis in Political Science.]

$2200\{240\}$ b. Classical Political Philosophy. Fall 2013. Jean M. Yarbrough.
A survey of classical political philosophy focusing on selected dialogues of Plato, the political writings of Aristotle, and St. Augustine's City of God. Examines ancient Greek and early Christian reflections on human nature, justice, the best regime, the relationship of the individual to the political community, the relationship of philosophy to politics, and the tension between reason and revelation.

2210 \{241\} b. Modern Political Philosophy. Spring 2014. Shilo Brooks.
A survey of modern political philosophy from Machiavelli to Mill. Examines the overthrow of the classical horizon, the movement of human will and freedom to the center of political thought, the idea of the social contract, the origin and meaning of rights, the relationship between freedom and equality, the role of democracy, and the replacement of nature by history as the source of human meaning. Authors may include Machiavelli, Hobbes, Locke, Hume, Rousseau, Kant, Hegel, and Mill.
$2220\{244\}$ b. Liberalism and Its Critics. Fall 2013. Shilo Brooks.
An examination of liberal democratic doctrine and of religious, cultural, and radical criticisms of it in the eighteenth and nineteenth centuries. Authors may include Locke, Kant, Burke, Tocqueville, Mill, Marx, and Nietzsche.
$2230\{250\}$ b. American Political Thought. Spring 2014. Jean M. Yarbrough.
Examines the political thought of American statesmen and writers from the founding to the twentieth century, with special emphasis on three pivotal moments: the Founding, the Crisis of the House Divided, and the growth of the modern welfare state. Readings include the Federalist Papers, the Anti-Federalists, Jefferson and Hamilton, Calhoun, Lincoln, William Graham Sumner, the Progressives, Franklin Delano Roosevelt, and contemporary thinkers on both the right and the left.
[2260 \{245\} b. Contemporary Political Philosophy.]
[2270 \{246\} b. Religion and Politics.]
[2280 \{249\} b. Eros and Politics.]
2295 b. Political Philosophy and the Problem of History. Spring 2014. Shilo Brooks.
Examines the emergence and political consequences of the view that history, culture, and human creativity should replace nature, reason, and God as the source of moral values. Can the view that all moral orientations are relative to time and place provide a sufficient foundation for a healthy political life? Authors may include Hegel, Nietzsche, Weber, Heidegger, and Strauss.
$2400\{224\}$ b. West European Politics. Fall 2013. Laura A. Henry.
Analyzes the dynamics of West European political systems, including the varieties of parliamentary and electoral systems and the formation of governments and lawmaking. Addresses contemporary political challenges in Britain, France, Germany, Italy, and other states, considering topics such as institutional reform, welfare state policies, economic growth
and unemployment, immigration, relations with the United States, and other foreign policy concerns. The European Union is not examined, as it is a separate course, Government 2500 $\{225\}$ : The Politics of the European Union.

2405 b. British Politics and Society. Spring 2014. Henry C. W. Laurence.
Comprehensive overview of modern British politics in historical, social, and cultural context. Considers the historical formation of the United Kingdom and the development of the modern democratic state, but focuses on political developments after 1945. Analyzes party politics, the Welfare State, Thatcherism, and the contemporary political scene. Explores policy issues including healthcare, education, economic policy, and the role of the media.
[2408 \{221\} b. Division and Consensus: The Government and Politics of Ireland.]
[2410 \{230\} b. Post-Communist Russian Politics and Society.]
2440 \{227\} b - IP. Contemporary Chinese Politics. Spring 2014. Christopher Heurlin.
Examines Chinese politics in the context of a prolonged revolution. After a survey of the political system as established in the 1950s and patterns of politics emerging from it, the analytic focus turns to political change in the reform era (since 1979) and the forces driving it. Topics include the political impact of decentralization and marketization, the reintegration into the capitalist world economy, and the development of the legal system. The adaptation by the Communist Party to these changes and the prospects of democratization are also examined. (Same as Asian Studies $2060\{227\}$.)

2445 \{286\} b - IP. Asian Communism: The Politics of China, Vietnam, North Korea, and Mongolia. Fall 2013. Christopher Heurlin.

Examines the Asian communism in China, Vietnam, North Korea, and Mongolia. Asian communism presents a series of fascinating questions. Why did communist revolutions occur in some Asian states but not others? Why were relations between some Asian communist states peaceful while others were hostile? Why did some adopt significant economic reforms while others maintained command economies? Why did communist regimes persist in most Asian states, while Communism fell in Mongolia and all of Europe? The approach of the course is explicitly comparative and structured around thematic comparisons between the four states. (Same as Asian Studies $2860\{280\}$.)

2450 \{232\} b - ESD, IP. Japanese Politics and Society. Fall 2013. Henry C. W. Laurence. Comprehensive overview of modern Japanese politics in historical, social, and cultural context. Analyzes the electoral dominance of the Liberal Democratic Party, the nature of democratic politics, and the rise and fall of the economy. Other topics include the status of women and ethnic minorities, education, war guilt, nationalism, and the role of the media. (Same as Asian Studies 2320 \{282\}.)
[2480 \{239\} b. Comparative Constitutional Law.]
[2482 \{283\} b. Social Movements and Popular Protest.]
[2484 \{235\} b - IP. Comparative Environmental Politics. (Same as Environmental Studies $2306\{236\})$.

2486 \{231\} b - IP. The Politics of Dictatorship: Authoritarian Resilience and
Democratization. Spring 2014. Christopher Heurlin.
Despite the end of the Cold War, dictatorship has persisted—even thrived. At least 40 percent of states in the world remain authoritarian. Introduces students to the social and political logic
of dictatorship. Explores questions such as: Where do dictatorships come from? Why might people support dictatorships? What effect does dictatorship have on political, economic, and social outcomes? How do dictatorships differ from one another? Why are some dictatorships resilient and stand the test of time while some quickly collapse? When dictatorships collapse, why are some dictatorships replaced by other dictatorships, while others democratize? Concentrates on the post-World War II era and explores the dynamics of dictatorship in regions throughout the world, including the Middle East, Latin America, Asia, Europe, and Africa.
$2500\{225\}$ b - IP. The Politics of the European Union. Spring 2014. Laura A. Henry.
Explores the historical foundations, scope, and consequences of European political and economic integration since 1951. Examines how the European Union's supranational political institutions, law, and policies have developed and how they affect the domestic politics of member states. Considers challenges faced by the European Union: enlargement to include Eastern European members, the loss of national sovereignty and the "democratic deficit," the creation of a European identity, and the development of a coordinated foreign policy.
[2520 \{226\} b. Government and Politics of the Middle East.]
[2525 \{273\} b - IP. War, Government, and Politics in Iraq.]
[2530 \{222\} b - IP. Politics and Societies in Africa. (Same as Africana Studies $2530\{222\}$. .) ]
[2545 \{234\} b - IP. Politics in East Asia. (Same as Asian Studies 2821 \{234\}.)]
$2570\{220\}$ b. The Politics of Development: Poverty, Prosperity, and Political Change. Fall 2013. Ericka A. Albaugh.

Examines the meaning of development from economic and political perspectives. Considers various theories and practices of development that have been applied to newly independent states in Asia, Latin America, and Africa. Investigates why trajectories of economic growth and political stability have been so uneven in different regions of the world. Incorporates views from both external and internal actors on issues such as foreign aid, multilateral institutions, good governance, and democratic participation.

## [2572 \{237\} b - ESD. The Politics of Ethnicity: Construction and Mobilization of Ethnic Identity Claims.]

$2573\{285\}$ b - IP. States of Languages and Languages of States. Fall 2013. Ericka A. Albaugh.

Examines the role of language in politics. Governments historically have tried to spread a single language within their populations through education and military conscription. What are the roots of this motivation? Does language standardization deepen the possibility for citizen participation and democracy? How have minority language groups responded? As the right to language has become a global norm, what effects will this have on the cohesiveness of existing states? Will globalization bring with it linguistic fragmentation or the worldwide spread of a few languages such as English, Arabic, and Chinese? Looks at the language question in the United States as well as in cases drawn from Europe, Asia, and Africa. Students will choose a country in which to evaluate the historical and present state of languages and language(s) of state. Topics touched by language will include democracy, state-building, colonization, violence, education, human rights, and globalization.

2574 \{275\} b. Rioters, Rebels, and Revolutionaries: Contentious Politics. Fall 2013. Christopher Heurlin.

Examines the rough-and-tumble world of contentious politics, which includes forms of social mobilization as diverse as riots, revolutions, and rebellions. While much of "routine politics" takes place through elections, examines activities that cross over into the extraordinary and asks questions such as: What is the relationship between elections and riots? Why do some revolutionary movements succeed while others fail? Given great personal risks, why do some people protest in dictatorships? How do states respond to protests and why? Examines the commonalities and differences between these diverse events through case studies throughout the developing world, including Asia, Latin America, and the Middle East.

## [2578 \{236\} b. Global Media and Politics.]

$2580\{233\}$ b. Advanced Comparative Politics: Government, War, and Society. Every spring. Spring 2014. Christian P. Potholm.

An examination of the forces and processes by which governments and societies approach and wage or avoid wars. The theories and practices of warfare of various political systems will be analyzed and particular attention will be paid to the interface where politics, society, and the military come together under governmental auspices in various comparative contexts. Specific examples from Africa, Asia, Europe, and North America are examined.
[2600 \{260\} b. International Law.]
2615 \{263\} b. International Environmental Policy. Fall 2013. Allen L. Springer.
Examines the political, legal, and institutional dimension of international efforts to protect the environment. Problems discussed include transboundary and marine pollution, maintaining biodiversity, and global climate change. (Same as Environmental Studies 2308 \{263\}.)]
$2670\{270\}$ b. United States Foreign Policy. Fall 2013. Barbara Elias.
Examines the development and conduct of United States foreign policy. Analyzes the impact of intragovernmental rivalries, the media, public opinion, and interest groups on the policymaking process, and provides case studies of contemporary foreign policy issues.

2680 \{261\} b. International Security. Spring 2014. Barbara Elias.
National security is a principal interest for states, but what exactly does that mean in international political life, and for the security of ordinary people like us? What strategic options are available to decision makers tasked with protecting national security? How much do national security polices reflect coherent planning, and how much are policies the product of competing international, economic, and technological constraints, or domestic political interests? Analyzing the strategy and politics of diplomacy, alliances, threats, aid, and war, aims to provide an overview of security studies within the field of international relations.

2683 \{279\} b. Terrorism. Fall 2013. Marc R. Scarcelli.
An in-depth study of the problem of terrorism, including its definition, historical origins and development, specific cases of terrorist organizations, its expansion into a global phenomenon, tactics and strategies, and the question of causes, as well as the issues surrounding counterterrorism's tactics, strategies, and policy dilemmas.

2687 \{287\} b. Transnational Crime. Fall 2013. Marc R. Scarcelli.
Examines several distinct categories of global crime. Places a strong emphasis on transnational smuggling industries, especially drug, weapons, and human smuggling, as well as several niche
smuggling industries, including exotic animals, animal products, human organs, historical artifacts, and toxic waste. Also examines several other categories of global crime, including human trafficking, counterfeits, money laundering, and bribery. Analyzes the role of laws, policies, and social norms in both inadvertently shaping these criminal industries and in attempting to counter them.
[2689 \{269\} b - IP. Environmental Security. (Same as Environmental Studies 2369 \{269\}.)]
[2800 \{243\} b. Might and Right among Nations.]
[2930 \{284\} b. The Politics of the Family.]
[2940 \{219\} c. Education and Law. (Same as Education 2250 \{250\}.)]
2970-2974 \{291-294\} b. Intermediate Independent Study in Government and Legal Studies: American Politics. The Department.

2975-2979 \{291-294\} b. Intermediate Independent Study in Government and Legal Studies: Political Theory. The Department.

2980-2984 \{291-294\} b. Intermediate Independent Study in Government and Legal Studies: Comparative Politics. The Department.

2985-2989 \{291-294\} b. Intermediate Independent Study in Government and Legal Studies: International Relations. The Department.

2999 \{299\} b. Intermediate Collaborative Study in Government and Legal Studies. The Department.

## Level C Courses

Level C courses provide seniors and juniors with appropriate background the opportunity to do advanced work within a specific subfield. Registration is limited to fifteen students in each seminar. Priority is given to senior majors, then junior majors. These courses are not open to first-year students.
$3000\{303\}$ b. The Law and Politics of Freedom of Speech. Spring 2014. Richard E. Morgan.
While focusing primarily on American material, students have the option of choosing speech controversies in other polities as the subject of their seminar papers.
$3010\{304\}$ b. Advanced Seminar in American Politics: Presidential-Congressional Relations. Spring 2014. Janet M. Martin.
Examines presidential-congressional relations through a number of perspectives, including use of historical, quantitative, and institutional analyses. Readings consider the relationship between the executive branch and Congress in both the domestic arena (including regulatory and budgetary policy) and in the area of foreign and defense policy.
[3020 \{308\} b. Money and Politics.]
3025 b. The Politics of Policy Implementation. Spring 2014. Andrew C. Rudalevige.
What happens after a bill becomes a law? During implementation, the separated system of American governance comes into sharp relief across the branches of government and across three (or more) levels of government as well. Examines how the wide range of institutional players involved-from legislators to regulators to chief executives to judges to front-line service providers-act and interact. Case studies (e.g., entitlement reform, education policy,
intelligence reorganization, health care) will be used to evaluate competing theoretical frameworks.

## [3030 \{309\} b. American Political Development.]

$3200\{341\}$ b. Advanced Seminar in Political Theory: Tocqueville. Spring 2014. Jean M. Yarbrough.
More than 150 years after its publication, Democracy in America remains the most powerful sympathetic critique of modern liberal democracy ever written. Careful reading of the text and selected secondary sources leads to examination of Tocqueville's analysis of the defects to which the democratic passion for equality gives rise and consideration of possible solutions that, in contrast to the Marxist and Nietzschean critiques, aim at preserving the liberal democratic way of life.
[3220 \{346\} b. Nietzsche.]
$3400\{332\}$ b. Advanced Seminar in Japanese Politics. Spring 2014. Henry C. W. Laurence.
Analyzes the political, social, and cultural underpinnings of modern politics, and asks how democracy works in Japan compared with other countries. Explores how Japan has achieved stunning material prosperity while maintaining among the best health care and education systems in the world, high levels of income equality, and low levels of crime. Students are also instructed in conducting independent research on topics of their own choosing. (Same as Asian Studies $3300\{332\}$.)

Prerequisite: Asian Studies $2320\{282\}$ (same as Government $2450\{232\}$ ).
$3500\{321\}$ b. Social Protest and Political Change. Spring 2014. Laura A. Henry.
Analyzes the role of social protest in generating political change on issues such as civil rights, environmentalism, women's rights, indigenous rights, and globalization. Begins by considering different theoretical approaches to understanding the emergence and effectiveness of social movements and non-governmental organizations. Then engages in comparative analysis of social protest in Europe, the United States, Latin America, and elsewhere, paying particular attention to the advantages and risks of the increasingly transnational nature of social activism.
[3510 \{324\} b. Post-Communist Pathways.]
3520 \{325\} b. State-Building in Comparative Perspective. Spring 2014. Ericka A. Albaugh.
States form the foundation of modern politics. Comparative government explores their variation; international relations examines their interaction. States can be instruments of oppression or engines of progress, and recent scholarship has focused on their strength, weakness, and failure. This capstone course explores the processes that produced the early modern state in Europe, then looks at more recent attempts to replicate state development in Latin America, Asia, the Middle East, and Africa. The role of war in state formation and the subject of citizenship receive particular attention.
[3530 \{327\} b. Political Development in the West.]
[3540 \{330\} b. Ending Civil Wars.]
[3560 \{336\} b. Advanced Seminar in Comparative Political Economy.]
$3590\{359\}$ b. Political Violence. Spring 2014. Marc R. Scarcelli.
Provides an in-depth study of political violence, a set of phenomena that includes international war, civil war, ethnic conflict, political repression, genocide, ethnic cleansing, revolutions, coups, and terrorism. Groups political violence into three general categories: reciprocal violence, violence by the state, and violence against the state. Broadly examines why these patterns of violence exist, drawing upon social-psychological, economic, and institutional perspectives, in tandem with consideration of numerous specific cases.
$3600\{361\}$ b. Advanced Seminar in International Relations: Conflict Simulation and Conflict Resolution. Spring 2014. Christian P. Potholm.

An upper-level interdisciplinary seminar on the nature of both international and national conflict. A variety of contexts and influence vectors are examined and students are encouraged to look at the ways conflicts can be solved short of actual warfare, as well as by it.
[ $3610\{363\}$ b. Advanced Seminar in International Relations: Law, Politics, and the Search for Justice. (Same as Environmental Studies 3963 \{363\}.)]
[ $3900\{393\}$ c. Religious Culture and Politics in Southeast Asia. (Same as Asian Studies $3550\{344\}$ and Religion 3344 \{344\}.)]

4000-4004 \{401-404\} b. Advanced Independent Study in Government and Legal Studies: American Politics. The Department.
4005-4009 \{401-404\} b. Advanced Independent Study in Government and Legal Studies: Political Theory. The Department.

4010-4014 \{401-404\} b. Advanced Independent Study in Government and Legal Studies: Comparative Politics. The Department.
4015-4019 \{401-404\} b. Advanced Independent Study in Government and Legal Studies: International Relations. The Department.
$4029\{405\}$ b. Advanced Collaborative Study in Government and Legal Studies. The Department.

4050-4051 b. Honors Project in Government and Legal Studies: American Politics. The Department.
4055-4056 b. Honors Project in Government and Legal Studies: Political Theory. The Department.

4060-4061 b. Honors Project in Government and Legal Studies: Comparative Politics. The Department.
4065-4066 b. Honors Project in Government and Legal Studies: International Relations. The Department.

## History

K. Page Herrlinger, Department Chair<br>Department Coordinator to be appointed

Professors: Olufemi Vaughan (Africana Studies), Allen Wells
Associate Professors: Connie Y. Chiang (Environmental Studies), Dallas G. Denery II, David Gordon, K. Page Herrlinger, Matthew W. Klingle (Environmental Studies), Sarah F.
McMahon, Patrick J. Rael, Rachel L. Sturman $\dagger$ (Asian Studies), Susan L. Tananbaum $\dagger$
Assistant Professors: David Hecht, Brian Purnell** (Africana Studies), Meghan Roberts, Ya (Leah) Zuo (Asian Studies)
Fellow: Nishtha G. Singh (Asian Studies)

## Requirements for the Major in History

History offers courses in the following fields of study: Africa, East Asia, Europe, Latin America, South Asia, the United States, Atlantic Worlds, and Colonial Worlds. Multi-field courses fall into more than one of these fields of study.

Before electing to major in history, a student should have completed or have in progress at least two college-level courses in history. In consultation with a faculty advisor in the department, a student should plan a program that begins at either the introductory or the intermediate level and progresses to the advanced level.

The major consists of ten courses, with the following stipulations:

1. No more than two courses below the intermediate level (numbered below $2000\{200\}$ ) may count toward the major, and these must be taken prior to the junior year.
2. No more than six courses in a single field of study may count toward the major. A multifield course may count toward any one of its designated fields, but a single course may not count toward more than one field of study.
3. Non-Euro/U.S. courses: Four non-Euro/U.S. courses. These courses are designated by professors and noted in the course Catalogue. The history department also maintains a list of these courses, which is available on the department website.
4. Pre-modern course: One pre-modern course. These courses are designated by professors and noted in the course Catalogue. The history department also maintains a list of these courses, which is available on the department website.
5. Upper-level seminars: Three courses numbered 2500 or higher, taken in at least two fields of study. One of these courses must be an advanced seminar (numbered 3000-3999 \{300-399\}). Previous related course work or permission of the instructor may be required. In consultation with a faculty advisor, a major may fulfill the 3000 -level requirement with an honors project.

Grades: Students must obtain a minimum course grade of C- to receive credit toward the major. Courses that will count toward the major must be taken for regular letter grades (not Credit/D/Fail).

Study away: In the sophomore year, students anticipating study away from Bowdoin should discuss with the departmental advisor a plan for the history major that includes work at Bowdoin and elsewhere. Students participating in approved off-campus study may count no more than one history course per semester toward the history major. In exceptional cases,
students may petition to receive credit for more than one course per semester toward the history major. In all cases, a maximum of three history courses taken away from Bowdoin may count toward the history major.

Honors: All history majors seeking departmental honors will register for at least one semester of advanced independent study (which will be converted to an Honors Project after honors is awarded). Its primary requirement is the research and writing of the honors thesis. To be eligible to register for Honors, a student must have the equivalent of a B+ average in courses taken in the department and the approval of a thesis advisor.

Languages: History majors are encouraged to develop competence in one or more foreign languages and to use this competence in their historical reading and research. Knowledge of a foreign language is particularly important for students planning graduate work.

## Requirements for the Minor in History

The minor consists of five courses with the following stipulations:

1. A maximum of one course below the intermediate level (numbered below $2000\{200\}$ ) must be taken prior to junior year.
2. A maximum of one course may be taken at another institution (may not count as an intermediate seminar or higher).
3. One course must be taken at the level of intermediate seminar or higher (course must be taken at Bowdoin).
4. One course must be non-Euro/U.S.
5. Courses that will count toward the minor must be taken for regular letter grades (not Credit/D/Fail).

## Curriculum

First Year Seminars (1000-1049 \{10-29\}) introduce students to college-level writing through the study of history as a discipline.

Introductory courses (1100-1999 \{100-199\}) introduce students to the methods and skills of history as a humanities and social science discipline. (Generally closed to seniors.)

Core courses (2000-2499) survey historical themes and problems and offer opportunities to deepen skills in historical thinking and writing. (Open to all students, including first-year students.)

Intermediate seminars (2500-2999) offer the opportunity for more intensive work in critical reading and discussion, analytical writing, library or archival research, and methodology. (Not open to first-year students without instructor's permission; some background in the discipline assumed.)

Advanced seminars (3000-3999 \{300-399\}) expect students to build on prior coursework by developing a substantial piece of historical research. (Not open to first-year students without instructor's permission.)

## First-Year Seminars

The following seminars introduce students to college-level writing through the study of history as a discipline.

Registration is limited to sixteen students in each seminar. First-year seminars numbered 1028-1049 fulfill the non-Euro/U.S. requirement for the history major.

For a full description of first-year seminars, see pages 157-168.
1012 \{22\} c. "Bad" Women Make Great History: Gender, Identity, and Society in Modern Europe, 1789-1945. Fall 2013. Page Herrlinger. (Same as Gender and Women's Studies 1022 \{22\}.)

1014 \{12\} c. Utopia: Intentional Communities in America, 1630-1997. Fall 2014. Sarah McMahon.
$\mathbf{1 0 1 6}\{\mathbf{2 5}\}$ c. The Civil War in Film. Fall 2013. Patrick Rael. (Same as Africana Studies 1025 \{25\}.)
1018 \{11\} c. Memoirs and Memory in American History. Fall 2013. Connie Chiang.
$1020\{15\}$ c. Frontier Crossings: The Western Experience in American History. Spring 2014. Matthew Klingle. (Same as Environmental Studies 1015 \{15\}.)

1022 \{14\} c. Science and Society. Fall 2014. David Hecht.
1036 c. China Encounters the West. Fall 2014. Leah Zuo. (Same as Asian Studies 1006.)
1040 \{16\} c. From Montezuma to Bin Laden: Globalization and Its Critics. Fall 2013. David Gordon. (Same as Africana Studies 1040 \{13\}.)

## Introductory Courses

Introductory courses (1100-1999 \{100-199\}) introduce students to the methods and skills of history as a humanities and social science discipline. Generally closed to seniors. Introductory 1000-level courses numbered 1370-1999 fulfill the non-Euro/U.S. requirement for history majors.

1140 \{110\} c - ESD. Medieval, Renaissance, and Reformation Europe. Fall 2013 and 2014. Dallas Denery.

Introductory-level lecture. A wide-ranging introduction to pre-modern European history beginning with the reign of the Roman Emperor Constantine (c. 272-337) and concluding with the Council of Trent (1545-1563). Particular attention is paid to the varying relations between church and state, the birth of urban culture and economy, institutional and popular religious movements, and the early formation of nation states. Not open to students who have credit for History 2049 \{206\} (Early Modern Europe) or 2048 \{207\} (Medieval Europe). Note: This course fulfills the pre-modern requirement for history majors.
[1180 \{125\} c - ESD, IP. Entering Modernity: European Jewry. (Same as Religion 1125 \{125\}.)]
$1240\{140\}$ c. War and Society. Fall 2013. Patrick Rael.
Explores the nature of warfare from the fifteenth century to the present. The central premise is that war is a reflection of the societies and cultures that wage it. This notion is tested by examining the development of war-making in Europe and the Americas from the period before the emergence of modern states, through the great period of state formation and nation building, to the present era, when the power of states to wage war in the traditional manner seems seriously undermined. Throughout, emphasis is placed on contact between European and non-European peoples. Students are required to view films every week outside of class.
$1241\{139\}$ c. The Civil War Era. Fall 2014. Patrick Rael.
Examines the coming of the Civil War and the war itself in all its aspects. Considers the impact of changes in American society, the sectional crisis and breakdown of the party system, the practice of Civil War warfare, and social ramifications of the conflict. Includes readings of novels and viewing of films. Students are expected to enter with a basic knowledge of American history, and a commitment to participating in large class discussions. (Same as Africana Studies 1241 \{139\}.)

## Introductory courses numbered 1370-1999 fulfill the non-Euro/U.S. requirement for bistory majors.

$1460\{160\}$ c - ESD, IP. Apartheid's Voices: South African History, 1948 to 1994. Fall 2013. David Gordon.

The study of apartheid in South Africa, the system of racial and ethnic segregation that began in 1948 and ended with the first democratic election of Nelson Mandela in 1994. Explores the many different aspects of apartheid: how and why it emerged; its social and economic impacts; its relationship to other forms of segregation and racial-based governance; and how people lived under, resisted, and collaborated with apartheid. Readings, lectures, and class discussions focus on personal South African voices and explore their diverse gendered, ethnic, and racial perspectives. (Same as Africana Studies $1460\{160\}$.)

## Core Courses

Core courses (2000-2499) survey historical themes and problems and offer opportunities to deepen skills in historical thinking and writing. Open to all students, including first-year students. Core courses numbered 2270-2499 fulfill the non-Euro/U.S. requirement for history majors.

## 2001 \{201\} c - ESD. History of Ancient Greece: Bronze Age to the Death of Alexander.

 Fall 2013. Robert B. Sobak.Surveys the history of Greek-speaking peoples from the Bronze Age (c. 3000-1100 BCE) to the death of Alexander the Great in 323 BCE. Traces the political, economic, social, religious, and cultural developments of the Greeks in the broader context of the Mediterranean world. Topics include the institution of the polis (city-state); hoplite warfare; Greek colonization; the origins of Greek "science," philosophy, and rhetoric; and fifth-century Athenian democracy and imperialism. Necessarily focuses on Athens and Sparta, but attention is also given to the variety of social and political structures found in different Greek communities. Special attention is given to examining and attempting to understand the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). A variety of sources-literary, epigraphical, archaeological—are presented, and students learn how to use them as historical documents. Note: This course fulfills the pre-modern requirement for history majors. (Same as Classics 2211 \{211\}.)
2002 \{202\} c. Ancient Rome. Fall 2014. Robert B. Sobak.
Surveys the history of Rome from its beginnings to the fourth century AD. Considers the political, economic, religious, social, and cultural developments of the Romans in the context of Rome's growth from a small settlement in central Italy to the dominant power in the Mediterranean world. Special attention is given to such topics as urbanism, imperialism, the influence of Greek culture and law, and multiculturalism. Introduces different types of
sources-literary, epigraphical, archaeological, etc.-for use as historical documents. Note: This course fulfills the pre-modern requirement for history majors. (Same as Classics 2212 \{212\}.)
[2005 \{227\} c - IP. City and Landscape in Modern Europe. (Same as Environmental Studies $2427\{227\})$.
2006 \{244\} c - VPA. City, Anti-City, Utopia: Building Urban America. Spring 2015. Jill Pearlman.

Explores the evolution of the American city from the beginning of industrialization to the present age of mass communications. Focuses on the underlying explanations for the American city's physical form by examining cultural values, technological advancement, aesthetic theories, and social structure. Major figures, places, and schemes in the areas of urban design and architecture, social criticism, and reform are considered. (Same as Environmental Studies 2444 \{244\}.)
[2008 \{267\} c - IP. The Republic of Rome and the Evolution of Executive Power. (Same as Classics 2214 \{214\}.)]
2042 c. The Good Life: From Plato to the Enlightenment. Spring 2014. Dallas Denery.
How do we live a truly human life? Examines the changing responses to this question from the ancient Greeks to the Enlightenment. Specific topics will include how humans differ from other animals, the tensions between pagan and Christian traditions and the secularization of the good life. Primary sources will include (among others) Plato, Aristotle, Seneca, the Gospels, Augustine, Christine de Pizan, Luther, and Bernard Mandeville. Note: This course fulfills the pre-modern requirement for history majors.
$2060\{243\}$ c - ESD. Old Regime and Revolutionary France. Spring 2014. Meghan Roberts.
At the beginning of the eighteenth century, many heralded King Louis XIV as the most powerful monarch to ever rule in Europe. At the end of the century, however, the French people overthrew the vaunted monarchy he had helped build. Considers what social, cultural, and intellectual conflicts helped shape politics and society in eighteenth-century France; why France had a revolution; and why the Revolution became radical and-all too often-violent. Note: This course fulfills the pre-modern requirement for history majors.
[2061 \{271\} c - ESD. Culture Wars in the Age of Enlightenment.]
2062 \{251\} c - IP. Conquistadors, Commerce, and Constitutions: States and Empires, 1492-1815. Fall 2013. Meghan Roberts.

The practice of European politics changed dramatically over the course of the early modern period, the age that stretched from Columbus to Napoleon. National governments became more centralized and began the process of forming their subjects into modern citizens who spoke the same language, worshipped according to the same confession, and believed in certain principles of government. At the same time, Europe transformed itself from a relatively weak region to a dominant world power with colonies all over the globe. Analyzes the development of modern politics, nationalism, and imperialism, and takes the nations of Spain, the Dutch Republic, Britain, and France as its main case studies. Note: This course fulfills the pre-modern requirement for history majors.
$2105\{215\}$ c - ESD, IP. The Paradox of Progress: Europe and the Experience of Modernity, 1815-1918. Spring 2014. Page Herrlinger.

Survey course of the "long nineteenth century" in Europe, from 1815 to the end of the First

World War, with an emphasis on the social, cultural, and political impact of industrial and technological "progress." Explores the way people lived and thought about the world around them as Europe industrialized, as well as the ambivalence that many Europeans came to attach to "modernity" by the end of the Great War in 1918.
2108 \{218\} c - ESD, IP. The History of Russia, 1725-1924. Fall 2013. Page Herrlinger.
Explores Russian society, culture, and politics during three dramatically different phases of the modern period: the Old Regime under the Tsars in the eighteenth and nineteenth centuries; the violent, revolutionary transformations of 1905 and 1917; and the founding years of socialist rule under Lenin and the Bolsheviks. Readings drawn from a diverse range of primary sources (including petitions, letters, memoirs, official proclamations, ethnographic accounts) as well as secondary works written by leading scholars. Also draws widely on contemporary visual culture (including, but not limited to, painting, photography, and film).
[2109 \{219\} c - ESD, IP. Russia's Twentieth Century: Revolution and Beyond.] 2121 \{231\} c - ESD. Colonial America and the Atlantic World, 1607-1763. Spring 2015. Sarah McMahon.

A social history of the emigration to and founding and growth of the colonies in British North America. Explores the difficulties of creating a new society, economy, polity, and culture in an unfamiliar and already inhabited environment; the effects of diverse regional and national origins and often conflicting goals and expectations on the early settlement and development of the colonies; the gradual adaptations and changes in European, Native American, and African cultures, and their separate, combined, and often contested contributions to a new "provincial," increasingly stratified (socially, economically, and politically), and regionally disparate culture; and the later problems of maturity and stability as the thirteen colonies began to outgrow the British imperial system and become a new "American" society. Note: This course fulfills the pre-modern requirement for history majors.
2123 \{233\} c - ESD. American Society in the New Nation, 1763-1840. Fall 2013. Sarah McMahon.

A social history of the United States from the Revolution to the Age of Jackson. Topics include the various social, economic, political, cultural, and ideological roots of the movement for American independence; the struggle to determine the scope of the Constitution and the political shape of the new republic; the emergence of and contest over a new social and cultural order and the nature of American "identity"; and the diverging social, economic, and political histories of regions (North, South, and trans-Appalachian West) and peoples in the early to mid-nineteenth century. Topics include urbanization, industrialization, and the development of new forms of social organization in the North; religion and the Second Great Awakening; the westward expansion of the nation into areas already occupied; the southern plantation economy and slave communities; and the growth of the reform impulse in Jacksonian America.
2126 \{246\} c - ESD. Women in American History, 1600-1900. Spring 2014. Sarah McMahon.
A social history of American women from the colonial period through the nineteenth century. Examines women's changing roles in both public and private spheres; the circumstances of women's lives as these were shaped by class, ethnic, and racial differences; the recurring conflict between the ideals of womanhood and the realities of women's experience; and focuses on family responsibilities, paid and unpaid work, religion, education, reform, women's rights, and feminism. (Same as Gender and Women's Studies 2251 \{251\}.)

2128 \{248\} c - ESD. Family and Community in American History, 1600-1900. Fall 2014. Sarah McMahon.

Examines the social, economic, and cultural history of American families from 1600 to 1900, and the changing relationship between families and their kinship networks, communities, and the larger society. Topics include gender relationships; racial, ethnic, cultural, and class variations in family and community ideals, structures, and functions; the purpose and expectations of marriage; philosophies of child-rearing; organization of work and leisure time; and the effects of industrialization, urbanization, immigration, and social and geographic mobility on patterns of family life and community organization. (Same as Gender and Women's Studies 2248 \{248\}.)
$2140\{236\}$ c - ESD. The History of African Americans, 1619-1865. Spring 2015. Patrick Rael.

Examines the history of African Americans from the origins of slavery in America through the death of slavery during the Civil War. Explores a wide range of topics, including the establishment of slavery in colonial America, the emergence of plantation society, control and resistance on the plantation, the culture and family structure of enslaved African Americans, free black communities, and the coming of the Civil War and the death of slavery. (Same as Africana Studies 2140 \{236\}.)
$2141\{237\}$ c - ESD. The History of African Americans from 1865 to the Present. Spring 2014. Patrick Rael.

Explores the history of African Americans from the end of the Civil War to the present. Issues include the promises and failures of Reconstruction, the Jim Crow era, black leadership and protest institutions, African American cultural styles, industrialization and urbanization, the world wars, the Civil Rights Movement, and conservative retrenchment. (Same as Africana Studies 2141 \{237\}.)
$2160\{232\}$ c - ESD. History of the American West. Fall 2014. Connie Chiang.
Survey of what came to be called the Western United States from the nineteenth century to the present. Topics include Euro-American relations with Native Americans; the expansion and growth of the federal government into the West; the exploitation of natural resources; the creation of borders and national identities; race, class, and gender relations; the influence of immigration and emigration; violence and criminality; cities and suburbs; and the enduring persistence of Western myths in American culture. Students write several papers and engage in weekly discussion based upon primary and secondary documents, art, literature, and film. (Same as Environmental Studies 2432 \{232\}.)

2162 \{268\} - ESD. Asian America: History, Society, Literature. Fall 2013. Connie Chiang, Belinda Kong, and Nancy Riley.

Focuses on Asian American experiences from an interdisciplinary perspective, including history, English, Asian studies, and sociology. Examines major issues in the experience of Asian Americans including immigration, the politics of racial/ethnic formation and identity, the political and economic forces that have shaped the lives of Asians in the U.S., historical experiences and influences on today's situation, and ways that Asian Americans have resisted and accommodated these influences. Uses a variety of lenses to gain critical perspective, including history, social relations and practices, and cultural production. (Same as Asian Studies 2805 \{251\}, English 2757 \{275\}, and Sociology 2266 \{266\}.)

2180 \{235\} c - ESD. Borderlands and Empires in Early North America. Spring 2014. Matthew Klingle.

Survey of the making of North America from initial contact between Europeans and Africans and Native Americans to the creation of the continent's three largest nations by the mid-nineteenth century: Canada, Mexico, and the United States. Topics include the history of Native populations before and after contact, geopolitical and imperial rivalries that propelled European conquests of the Americas, evolution of free and coerced labor systems, environmental transformations of the continent's diverse landscapes and peoples, formation of colonial settler societies, and the emergence of distinct national identities and cultures in former European colonies. Students write several papers and engage in weekly discussion based upon primary and secondary documents, art, literature, and material culture. (Same as Environmental Studies 2425 \{235\} and Latin American Studies 2180 \{236\}.)
$2182\{242\}$ c - ESD. Environment and Culture in North American History. Every year. Spring 2014. Connie Chiang.

Explores relationships between ideas of nature, human transformations of the environment, and the effect of the physical environment upon humans through time in North America. Topics include the "Columbian exchange" and colonialism; links between ecological change and race, class, and gender relations; the role of science and technology; literary and artistic perspectives of "nature"; agriculture, industrialization, and urbanization; and the rise of modern environmentalism. (Same as Environmental Studies 2403 \{203\}.)

Prerequisite: Environmental Studies $1101\{101\}$ or permission of the instructor.
2200 \{288\} c - IP. The Nuclear Age. Fall 2013. David Hecht.
Explores the impact of nuclear energy on American society, politics, and culture. Few aspects of post-World War II United States history were unaffected by the atomic bomb, which decisively shaped the Cold War, helped define the military-industrial complex, and contributed to profound changes in the place of science in American life. Examines the surprisingly varied effects of the atomic bomb throughout American society: on the Cold War, consumer culture, domestic politics, education, family life, and the arts. Uses a wide range of sources-such as newspaper articles, memoirs, film, and policy debates-to examine the profound effects of nuclear energy in United States history.

## 2220 \{228\} c. Civil Rights and Black Power Movements in the Making of Modern America. Spring 2015. Brian Purnell.

Examines the political activism, cultural expressions, and intellectual history that gave rise to a modern Black freedom movement, and that movement's impact on the broader American (and international) society. Students study the emergence of community organizing traditions in the southern black belt as well as postwar black activism in U.S. cities; the role the federal government played in advancing civil rights legislation; the internationalism of African American activism; and the relationship between black culture, aesthetics, and movement politics. The study of women and gender is a central component. Using biographies, speeches, and community and organization studies, students analyze the lives and contributions of Martin Luther King Jr., Ella Baker, Septima Clark, Malcolm X, Stokely Carmichael, Angela Davis, Huey Newton, and Fannie Lou Hamer, among others. Closely examines the legacies of the modern Black freedom movement: the expansion of the Black middle class, controversies over affirmative action, and the rise of Black elected officials. (Same as Africana Studies 2240 $\{240\}$.)

## Core courses numbered 2270-2499 fulfill the non-Euro/U.S. requirement for bistory majors.

2289 c. Gandhi and Non-Violent Politics. Spring 2014. Nishtha Singh.

Politics, almost by definition, is oppositional. It promotes an "us vs. them" mindset. However, Gandhi introduced a form of politics that was non-adversarial and based in dialogue. His nonviolent form of politics was able to bring the masses into the political arena for the first time in South Asia, and to create one of the largest anti-colonial movements in the world. Analyzes Gandhian politics through questions such as: How did Gandhi's deeply held personal views on non-violence impact his politics? What were the Gandhian techniques of mass mobilization? Can Gandhi's own initiatives-what he himself said and did—adequately explain his vast popularity amongst the masses? What were the pitfalls of Gandhian politics? What groups felt alienated from them? How did people such as Martin Luther King Jr. adapt Gandhian ideas outside South Asia? Do Gandhian ideas have a place in our contemporary world? (Same as Asian Studies 2591.)
$2320\{275\}$ c. The Emergence of Chinese Civilization. Fall 2012 Spring 2014. Leah Zuo.
Introduction to ancient Chinese history ( 2000 BCE to 800 CE). Explores the origins and foundations of Chinese civilization. Prominent themes include the inception of the imperial system, the intellectual fluorescence in classical China, the introduction and assimilation of Buddhism, the development of Chinese cosmology, and the interactions between early China and neighboring regions. Class discussion of historical writings complemented with literary works and selected pieces of the visual arts. Note: This course fulfills the pre-modern requirement for history majors. (Same as Asian Studies 2010 \{275\}.)

2321 \{273\} c - ESD, IP. Late Imperial China. Fall 2014. Leah Zuo.
Introduction to late imperial China ( 800 to 1800 ) as the historical background to the modern age. Begins with the conditions shortly before the Golden Age (Tang Dynasty) collapses, and ends with the heyday of the last imperial dynasty (Qing Dynasty). Major topics include the burgeoning of "modernity" in economic and political patterns, the relation between state and society, the voice and presence of new social elites, ethnic identities, and the cultural, economic, and political encounters between China and the West. Note: This course fulfills the pre-modern requirement for history majors. (Same as Asian Studies 2011 \{271\}.)
2322 \{214\} c - IP. China’s Path to Modernity: 1800 to Present. Fall 2013. Leah Zuo.
Introduction to modern and contemporary Chinese history. Covers the period from the nineteenth century, when imperial China encountered the greatest national crisis in its contact with the industrial West, to the present People's Republic of China. Provides historical depth to an understanding of the multiple meanings of Chinese modernity. Major topics include: democratic and socialist revolutions, assimilation of Western knowledge and thought; war; imperialism; and the origin, development, and unraveling of the Communist rule. (Same as Asian Studies 2012 \{277\}.)
2342 \{261\} c - ESD, IP. The Making of Modern India. Fall 2013. Nishtha Singh.
Traces the history of India from the rise of British imperial power in the mid-eighteenth century to the present. Topics include the formation of a colonial economy and society; religious and social reform; the emergence of anti-colonial nationalism; the road to independence and partition; and issues of secularism, democracy, and inequality that have shaped post-colonial Indian society. (Same as Asian Studies 2581 \{256\}.)
[2343 \{263\} c - ESD, IP. Politics and Popular Culture in Twentieth-Century India. (Same as Asian Studies $2582\{258\}$. .]
$2344\{280\}$ c - ESD, IP. Imperialism, Nationalism, Human Rights. Spring 2015. Rachel Sturman.

Examines the history of modern global imperialism and colonialism from the sixteenth through the twentieth centuries. Focuses on the parallel emergence of European nationalism, imperialism, and ideas of universal humanity, on the historical development of anti-colonial nationalisms in the regions ruled by European empires, and on the often-contentious nature of demands for human rights. Regions examined include South Asia, Africa, and Latin America. (Same as Asian Studies 2230 \{230\}.)
[2362 \{262\} c - ESD, IP. Africa and the Atlantic World, 1400-1880. (Same as Africana Studies 2362 \{262\}.)]
2364 \{264\} c - ESD, IP. Conquest, Colonialism, and Independence: Africa since 1880. Spring 2014. David Gordon.
Focuses on conquest, colonialism, and its legacies in sub-Saharan Africa; the violent process of colonial pacification, examined from European and African perspectives; the different ways of consolidating colonial rule and African resistance to colonial rule, from Maji Maji to Mau Mau; and African nationalism and independence, as experienced by Africa's nationalist leaders, from Kwame Nkrumah to Jomo Kenyatta, and their critics. Concludes with the limits of independence, mass disenchantment, the rise of the predatory post-colonial state, genocide in the Great Lakes, and the wars of Central Africa. (Same as Africana Studies 2364 \{264\}.)
[2365 \{265\} c - IP. Mogadishu to Madagascar: East African History. (Same as Africana Studies 2365 \{268\}.)]

2380 \{208\} c - IP. Christianity and Islam in West Africa. Fall 2013. Olufemi Vaughan.
Explores how Christianity, Islam, and indigenous African religious beliefs shaped the formation of West African states, from the nineteenth-century Islamic reformist movements and mission Christianity, to the formation of modern nation-states in the twentieth century. While the course provides a broad regional West African overview, careful attention is focused on how religious themes shaped the communities of the Nigerian region-a critical West African region where Christianity and Islam converged to transform a modern state and society. Drawing on primary and secondary historical texts as well as Africanist works in sociology and comparative politics, study of this Nigerian experience illuminates broader West African, African, and global perspectives that underscore the historical significance of religion in politics and society, especially in non-Western contexts. (Same as Africana Studies 2380 \{247\}.)
2401 \{252\} c - IP. Colonial Latin America. Fall 2014. Allen Wells.
Introduces students to the history of Latin America from pre-Columbian times to about 1825. Traces developments fundamental to the establishment of colonial rule, drawing out regional comparisons of indigenous resistance and accommodation. Topics include the nature of indigenous societies encountered by Europeans; exploitation of African and Indian labor; evangelization and the role of the church; the evolution of race, gender, and class hierarchies in colonial society; and the origins of independence in Spanish America and Brazil. Note: This course fulfills the pre-modern requirement for history majors. (Same as Latin American Studies 2401 \{252\}.)

2402 \{255\} c - IP. Modern Latin America. Fall 2013. Allen Wells.
Traces the principal economic, social, and political transformations from the wars of independence to the present. Topics include colonial legacies and the aftermath of independence, the consolidation of nation-states and their insertion in the world economy, the evolution of land and labor systems, the politics of reform and revolution, and the emergence of social movements. (Same as Latin American Studies 2402 \{255\}.)

2403 \{258\} c - IP. Latin American Revolutions. Spring 2015. Allen Wells.
Examines revolutionary change in Latin America from a historical perspective, concentrating on four cases of attempted revolutionary change-Cuba, Chile, Nicaragua, and Venezuela. Popular images and orthodox interpretations are challenged and new propositions about these processes are tested. External and internal dimensions of each of these social movements are analyzed and each revolution is discussed in the full context of the country's historical development. (Same as Latin American Studies 2403 \{258\}.)

2404 \{266\} c - IP. History of Mexico. Spring 2014. Allen Wells.
A survey of Mexican history from pre-Columbian times to the present. Topics include the evolving character of indigenous societies, the nature of the Encounter, the colonial legacy, the chaotic nineteenth century, the Mexican Revolution, and United States-Mexican relations. Contemporary problems are also addressed. (Same as Latin American Studies 2104 \{266\}.)

## Intermediate Seminars

Intermediate seminars (2500-2999) offer the opportunity for more intensive work in critical reading and discussion, analytical writing, library or archival research, and methodology. Not open to first-year students without instructor's permission; some background in the discipline assumed. Seminars numbered 2740-2899 fulfill the non-Euro/U.S. requirement for history majors.
$2521\{210\}$ c. On the Origins of Modernity. Spring 2014. Dallas Denery.
Seminar. Examines Europe's transition from a pre-modern to an early modern society during the sixteenth and seventeenth centuries. Beginning with an analysis of "secularization" as a historical process, examines the extent to which the Reformation, the Scientific Revolution, and the development of mercantile capitalism contributed to the undoing of traditional social, cultural, and religious structures. Readings will include an array of primary sources, as well as works by Ernst Troeltsh, Hans Blumenberg, and Charles Taylor. Note: This course fulfills the pre-modern requirement for history majors.

2540 \{278\} c - ESD, IP. The Politics of Private Life. Fall 2013. Meghan Roberts.
Seminar. Examines how and why "the personal was political" in Europe and the Atlantic World from 1400 to 1800 by analyzing the politics (broadly defined) of marriage, love, and sex. Investigates in particular the effects of religious reform, colonial exchange, philosophy, and political revolution on private life. Readings include correspondence, novels, and memoirs as well as scholarly analyses of divorce, homosexuality, romantic love, and marriage. Students write a research paper based on research in primary sources. Note: This course fulfills the pre-modern requirement for history majors.
2541 c. Crime and Punishment. Spring 2014. Meghan Roberts.
Seminar. Crime provides a useful lens through which historians can understand the past because defining and punishing transgressions forced people to articulate their values and
ideals. Considers criminal figures such as miscreant nuns, unfaithful wives, impostors, and murderers by examining celebrated court cases in Europe from 1500 to 1800. Also examines historical methods. Students write a research paper based on primary sources. Note: This course fulfills the pre-modern requirement for history majors.
Prerequisite: One course in history.
[2560 \{240\} c - ESD. Only a Game? Sports and Leisure in Europe and America. (Same as Gender and Women's Studies $2246\{263\}$. .)
[2580 \{217\} c - ESD. The German Experience, 1918-1945.]
2607 \{247\} c. Maine: A Community and Environmental History. Spring 2014. Sarah McMahon.

Seminar. Examines the evolution of various Maine social and ecological communities-inland, hill country, and coastal. Begins with the contact of European and Native American cultures, examines the transfer of English and European agricultural traditions in the seventeenth and eighteenth centuries, and explores the development of diverse geographic, economic, ethnic, and cultural communities during the nineteenth and into the early twentieth centuries. (Same as Environmental Studies 2447 \{247\}.)

Prerequisite: One course in history or permission of the instructor.
2609 \{249\} c. History of Women's Voices in America. Spring 2015. Sarah McMahon.
Seminar. Examines women's voices in America from 1650 to the twentieth century, as these emerged in private letters, journals, and autobiographies; poetry, short stories, and novels; essays, addresses, and prescriptive literature. Readings from the secondary literature provide a historical framework for examining women's writings. Research projects focus on the form and content of women's literature and the ways that it illuminates women's understandings, reactions, and responses to their historical situation. (Same as Gender and Women's Studies 2601 \{249\}.)

Prerequisite: One course in history.
[2621 \{238\} c. Reconstruction. (Same as Africana Studies 2621 \{238\}.)]
$2640\{250\}$ c - ESD. California Dreamin': A History of the Golden State. Spring 2015. Connie Chiang.

Seminar. Sunshine, beaches, shopping malls, and movie stars are the popular stereotypes of California, but social conflicts and environmental degradation have long tarnished the state's golden image. Unravels the myth of the California dream by examining the state's social and environmental history from the end of Mexican rule and the discovery of gold in 1848 to the 2003 election of Arnold Schwarzenegger. Major topics include immigration and racial violence; radical and conservative politics; extractive and high-tech industries; environmental disasters; urban, suburban, and rural divides; and California in American popular culture. (Same as Environmental Studies $2416\{250\}$.)
2660 \{226\} c - ESD. The City as American History. Fall 2013. Matthew Klingle.
Seminar. America is an urban nation today, yet Americans have had deeply ambivalent feelings toward the city over time. Explores the historical origins of that ambivalence by tracing several overarching themes in American urban history from the seventeenth century to the present. Topics include race and class relations, labor, design and planning, gender and sexual identity, immigration, politics and policy, scientific and technological systems, violence and
crime, religion and sectarian disputes, and environmental protection. Discussions revolve around these broad themes, as well as regional distinctions between American cities. Students are required to write several short papers and one longer paper based upon primary and secondary sources. (Same as Gay and Lesbian Studies 2266 \{266\}.)

2680 \{225\} c. Image, Myth, and Memory. Spring 2014. David Hecht.
Seminar. Which matters more: what happened, or what people think happened? Starts with the assumption that cultural reaction to an event is as consequential-perhaps more so-than what actually happened. Examines the cultural reception and changing historical memory of people, events, and ideas that have been central to modern American History and History of Science. Seeks to answer questions about the nature and construction of public opinion, popular images, and historical memory-and what the consequences of such processes and understandings have been. Introduces the themes and methods of studying popular and cultural history, drawing principally from examples in the history of science and post-World War II American culture. (Possible examples include nuclear weapons, evolution, genetics, climate change, student activism, feminism, abortion, education, and presidential politics.) Then follows a workshop format, in which classes revolve around the reading and writing that students do as part of self-designed research projects-projects that may be on any subject in modern United States history.
Prerequisite: One course in history or permission of the instructor.
$2700\{279\}$ c - ESD. Martin, Malcolm, and America. Fall 2014. Brian Purnell.
Seminar. Examines the lives and thoughts of Martin L. King Jr. and Malcolm X. Traces the development in their thinking and examines the similarities and differences between them. Evaluates their contribution to the African American freedom struggle, American society, and the world. Emphasizes very close reading of primary and secondary material; use of audio and videocassettes; lecture presentations and class discussions. In addition to being an academic study of these two men's political and religious commitment, also concerns how they inform our own political and social lives. (Same as Africana Studies $2700\{244\}$.)

## The following intermediate seminars (2740-2899) fulfill the non-Euro/U.S. requirement for history majors.

2743 c. Islam in South Asia c. 700 to the Present. Spring 2014. Nishtha Singh.
Seminar: Focuses on Islam in South Asia-which is home to the largest number of Muslims anywhere in the world, and whose large Muslim population has always co-habited with a much larger non-Muslim population. Questions and themes include: the manner and extent of the expansion of Islam over the subcontinent (religion of conquest? mass conversions?); how "Islamic" was Muslim rule on the sub-continent; Islamic aesthetics and contributions to material culture; the multiple engagements and reactions of Muslims to British colonial rule; the politicization of religious identity under colonialism; the partition of British India into the nation states of India and Pakistan on grounds of religion; and the contemporary concerns and challenges of South Asia's Muslims. (Same as Asian Studies 2590.)

2780 \{276\} c - ESD, IP. The Foundations of Chinese Thought. Fall 2013. Leah Zuo.
Seminar. Addresses Chinese thought from the time of Confucius, ca. sixth century BCE, up to the beginning of the Common Era. The first half of the time period nurtured many renowned thinkers, who devoted themselves to the task of defining and disseminating ideas. The latter half witnessed the canonization of a number of significant traditions, including Confucianism, Daoism, and Legalism. Major problems that preoccupied the thinkers include
order and chaos, human nature, the relationship between man and nature, among others. Students instructed to interrogate philosophical ideas in historical contexts. Note: This course fulfills the pre-modern requirement for history majors. (Same as Asian Studies 2002 \{276\}.)

2781 \{260\} c - IP. Science, Technology, and Society in China. Spring 2014. Leah Zuo.
Seminar. Examines Chinese science, technology, and medicine in the cultural, intellectual, and social circumstances. The first part surveys a selection of main fields of study in traditional Chinese science and technology, nodal points of invention and discovery, and important conceptual themes. The second part tackles the clash between traditional Chinese natural studies and modern science from the seventeenth through the twentieth centuries. Prominent themes include astronomy and court politics, printing technology and books, and the dissemination of Western natural science, among others. Reading materials reflect the interdisciplinary approach of this course and include secondary literature on cultural, intellectual history, ethnography, and the sociology of scientific knowledge. (Same as Asian Studies 2005 \{273\}.)
$2800\{241\}$ c - ESD, IP. From Gandhi to the Taliban: Secularism and Its Critics in Modern South Asia. Spring 2015. Rachel Sturman.

Seminar. Explores modern sociopolitical movements in India and Pakistan that have sought to redefine the relationship between religion and the state. Issues considered include the meanings of secularism, the ethical claims of modern states, the development of violence and non-violence as political programs, and the historical impacts of these diverse movements. (Same as Asian Studies 2584 \{239\}.)
[2801 \{259\} c - ESD, IP. Sex and the Politics of the Body in Modern India. (Same as Asian Studies $2583\{237\}$ and Gender and Women's Studies 2259 \{259\}.)]
[2821 \{269\} c - ESD, IP. After Apartheid: South African History and Historiography. (Same as Africana Studies 2821 \{269\}.)]
[2822 \{272\} c - IP. Warlords and Child Soldiers in African History. (Same as Africana Studies $2822\{272\}$. .]
$2840\{213\}$ c. Transnational Africa and Globalization. Fall 2013. Olufemi Vaughan.
Seminar. Drawing on key readings on the historical sociology of transnationalism since World War II, examines how postcolonial African migrations transformed African states and their new transnational populations in Western countries. Discusses what concepts such as the nation state, communal identity, global relations, and security mean in the African context in order to critically explore complex African transnational experiences and globalization. These dynamic African transnational encounters encourage discussions on homeland and diaspora, tradition and modernity, gender and generation. (Same as Africana Studies 2840 \{213\}.)
2841 \{216\} c. History of African and African Diasporic Political Thought. Spring 2014. Olufemi Vaughan.

Seminar. Critically discusses some seminal works in African diaspora and African political thought in the nineteenth and twentieth centuries. Organized around global and national currents that will allow students to explore intersections in pan-African, African American, and African political thought in the context of Atlantic and global histories. Seminar topics divided into three major historic moments. The first will explore major themes on Atlantic slavery and Western thought, notably slavery and racial representation, slavery and capitalism, slavery and democracy. The second focuses on the struggle of African Americans, Africans,
and West Indians for freedom in post-Abolition and colonial contexts. Topics discussed within twentieth-century national, regional, and global currents include reconstruction and industrialization, pan-Africanism, new negro, negritude, colonialism, nationalism. Finally, explores pan-African and African encounters in the context of dominant postcolonial themes, namely decolonization, Cold War, state formation, imperialism, African diaspora feminist thought, and globalism. Discusses these foundational texts and the political thoughts of major African, African American, and Caribbean intellectuals and activists in their appropriate historical context. (Same as Africana Studies 2841 \{216\}.)
2860 \{253\} c. The United States and Latin America: Tempestuous Neighbors. Fall 2014. Allen Wells.

Seminar. Examines scholarship on the evolution of United States-Latin American relations since Independence. Topics include the Monroe Doctrine, commercial relations, interventionism, Pan Americanism, immigration, and revolutionary movements during the Cold War. (Same as Latin American Studies 2160 \{253\}.)
2861 \{254\} c. Contemporary Argentina. Spring 2014. Allen Wells.
Seminar. Texts, novels, and films help unravel Argentine history and culture. Topics examined include the image of the gaucho and national identity; the impact of immigration; Peronism; the tango; the Dirty War; and the elusive struggle for democracy, development, and social justice. (Same as Latin American Studies 2161 \{254\}.)
[2870 \{239\} c. Comparative Slavery and Emancipation. (Same as Africana Studies 2870 \{239\}.)]
$2871\{200\}$ c. Beyond Capoeira: History and Politics of Afro-Brazilian Culture. Spring 2014. Laura Premack.

Seminar. Brazil has the largest population of African descent outside Africa. Nowadays, Brazilians pride themselves on their country's unique racial and cultural heritage, but for centuries, many Afro-Brazilian practices were illegal. The Afro-Brazilian renaissance currently underway is something to be celebrated, but it is also something to be questioned. Do these efforts to delineate, praise, and preserve Afro-Brazilian culture actually limit understanding of it? Has labeling certain aspects of Brazilian cultural heritage as African created a situation in which other ways that Africa has influenced Brazil are overlooked? Just what is meant by "African" and "Brazilian" anyhow? Takes a historical and anthropological approach to these and other related questions. (Same as Africana Studies $2210\{210\}$ and Latin American Studies $2110\{221\}$.)

## Advanced Seminars

Advanced seminars (3000-3999 \{300-399\}) expect students to build on prior coursework by developing a substantial piece of historical research. These courses are not open to first-year students without instructor's permission. Seminars numbered 3270-3999 fulfill the nonEuro/U.S. requirement for history majors.

3040 \{307\} c. Topics in Medieval and Early Modern European History. Fall 2013. Dallas Denery.

A research seminar for majors and interested non-majors focusing on Medieval and Early Modern Europe. After an overview of recent trends in the historical analysis of this period, students pursue research topics of their own choice, culminating in a significant piece of
original historical writing (approximately thirty pages in length). Note: This course fulfills the pre-modern requirement for history majors.
Prerequisite: One course in history.
3102 c. Stalinism. Spring 2014. Page Herrlinger.
Explores questions of power, identity, and belief in Soviet society under Joseph Stalin's "totalitarian" system of rule from 1928 to 1953. Readings, drawn from recent scholarship and primary documents, engage topics such as Stalin's dictatorship and cult of personality; the project to "build socialism"; mechanisms of state violence and political terror; popular conformity/resistance; gender, family, and everyday life; mass culture and socialist realism in the arts; Stalinism at war (1941-1945), in post-war Eastern Europe, and in historical memory. Students will be expected to write an original research paper.
3122 \{332\} c. Community in America, Maine, and at Bowdoin. Fall 2013. Sarah McMahon.
A research seminar that explores ideals and social, economic, political, and cultural realities of community in American history, and examines continuity, change, and socio-economic, racial, and ethnic diversity in community experience. Begins with studies of communities in seventeenth-century Massachusetts and early national upstate New York; then focuses on Maine and on Bowdoin College and its midcoast neighborhood, with readings in both the secondary literature and a wealth of primary sources.
3140 \{336\} c. Research in Nineteenth-Century United States History. Spring 2014. Patrick Rael.

A research course for majors and interested non-majors that culminates in a single 25- to 30-page research paper. With the professor's consent, students may choose any topic in Civil War or African American history, broadly defined. This is a special opportunity to delve into Bowdoin's rich collections of primary historical source documents. (Same as Africana Studies 3140 \{336\}.)

Prerequisite: One course in history.
$3160\{330\}$ c. The United States Home Front in World War II. Fall 2014. Connie Chiang.
Examines social and cultural changes on the United States home front during World War II. While some Americans remember World War II as "the good war," an examination of this period reveals a more complicated history. By analyzing a variety of historical sources-scholarly writings, government documents and propaganda, films, memoirs, fiction, and advertising-investigates how the war shaped and reshaped sexuality, family dynamics, and gender roles; race and ethnic relations; labor conflicts; social reform, civil rights, and citizenship; and popular culture. Also considers the war's impact on the immediate postwar years and how Americans have remembered the war. Students write a major paper based on primary source research.

3180 \{337\} c. Nature and Health in America. Spring 2015. Matthew Klingle.
Explores relationships between humans, environment, and health in North American history from the sixteenth century to the present day. Topics may include the evolution of public health, biomedical research, and clinical practice; folk remedies and popular understandings of health; infectious and chronic diseases; links between landscape, health, and inequality; gender and reproductive health; occupational health and safety; the effects of agriculture, industrialization, and urbanization on human and ecological health; state and federal policies; and the colonial and global dimensions of public health and medicine. Students write a major
research paper based on primary sources. Environmental Studies 1101 \{101\}, 2403 \{203\}, and at least one history course numbered 2000-2969 \{200-289\} is recommended. (Same as Environmental Studies 3980 \{337\}.)

## Advanced Seminars numbered 3270-3999 fulfill the non-Euro/U.S. requirement for history majors.

3360 c. The Common Good? A History of International Aid. Spring 2014. David Gordon. The history of international aid to the "third world" through the twentieth century. Seminar considers the imperial mission and white man's burden, aid during modern colonialism, the post-colonial aid community, the Bretton Woods Institutions, the rise of small-scale NGO aid interventions, aid in modern warfare, and the varied contemporary impacts of aid. Readings focus on Africa, along with examples from Latin America and South Asia. Participants should have some background in the history of at least one of these regions. Each student will write an original research paper on the history of an aid project. (Same as Africana Studies 3306.)

Prerequisite: One course in history, Africana studies, Asian studies, or Latin American studies; or permission of the instructor.

3401 \{351\} c. The Mexican Revolution. Spring 2015. Allen Wells.
An examination of the Mexican Revolution (1910-1920) and its impact on modern Mexican society. Topics include the role of state formation since the revolution, agrarian reform, United States-Mexican relations, immigration, and other border issues. (Same as Latin American Studies 3101 \{352\}.)

3403 \{356\} c. The Cuban Revolution. Fall 2013. Allen Wells.
The Cuban Revolution recently celebrated its fiftieth anniversary. Offers a retrospective of a Revolution entering "middle age" and its prospects for the future. Topics include United States-Cuban relations, economic and social justice versus political liberty, gender and race relations, and literature and film in a socialist society. (Same as Latin American Studies 3103 \{356\}.)

## Independent Study and Honors in History

2970-2971 \{291-294\} c. Intermediate Independent Study in History: Europe. The Department.
2972-2973 \{291-294\} c. Intermediate Independent Study in History: United States. The Department.

2974-2975 \{291-294\} c. Intermediate Independent Study in History: Africa. The Department.
2976-2977 \{291-294\} c. Intermediate Independent Study in History: East Asia. The Department.

2978-2979 \{291-294\} c. Intermediate Independent Study in History: Latin America. The Department.

2980-2981 \{291-294\} c. Intermediate Independent Study in History: South Asia. The Department.
2982-2983 \{291-294\} c. Intermediate Independent Study in History: Atlantic Worlds. The Department.

2984-2985 \{291-294\} c. Intermediate Independent Study in History: Colonial Worlds. The Department.

2986-2987 \{291-294\} c. Intermediate Independent Study in History. The Department.
2999 \{299\} c. Intermediate Collaborative Study. The Department.
4000-4001 \{401-404\} c. Advanced Independent Study in History: Europe.
The Department.
4002-4003 \{401-404\} c. Advanced Independent Study in History: United States. The Department.
4004-4005 \{401-404\} c. Advanced Independent Study in History: Africa. The Department.
4006-4007 \{401-404\} c. Advanced Independent Study in History: East Asia.
The Department.
4008-4009 \{401-404\} c. Advanced Independent Study in History: Latin America. The Department.

4010-4011 \{401-404\} c. Advanced Independent Study in History: South Asia. The Department.
4012-4013 \{401-404\} c. Advanced Independent Study in History: Atlantic Worlds. The Department.

4014-4015 \{401-404\} c. Advanced Independent Study in History: Colonial Worlds. The Department.

4016-4017 \{401-404\} c. Advanced Independent Study in History. The Department. 4029 \{405\} c. Advanced Collaborative Study. The Department.
4050-4051 \{451-452\} c. Honors Project in History: Europe. Every year. The Department.
4052-4053 \{451-452\} c. Honors Project in History: United States. Every year. The Department.
4054-4055 \{451-452\} c. Honors Project in History: Africa. Every year. The Department.
4056-4057 \{451-452\} c. Honors Project in History: East Asia. Every year. The Department.
4058-4059 \{451-452\} c. Honors Project in History: Latin America. Every year. The Department.
4060-4061 \{451-452\} c. Honors Project in History: South Asia. Every year. The Department.

4062-4063 \{451-452\} c. Honors Project in History: Atlantic Worlds. Every year. The Department.
4064-4065 \{451-452\} c. Honors Project in History: Colonial Worlds. Every year. The Department.

4066-4067 \{451-452\} c. Honors Project in History. Every year. The Department.

## Interdisciplinary Majors

## Art History and Arghaeology

## Requirements

1. Art History $1100\{100\}$; one of Art History $2130\{213\}$ or $2150\{215\}$; and one of Art History 3000-3999 \{302-388\}; Archaeology 1101 \{101\} (same as Art History 2090 \{209\}), $1102\{102\}$ (same as Art History $2100\{210\}$ ), and any three additional archaeology courses, at least one of which must be at the advanced level (numbered 3000-3999 \{300-399\}).
2. Any two art history courses.
3. One of the following: Classics $1101\{101\}, 2211\{211\}$ (same as History 2001 \{201\}), $2212\{212\}$ (same as History $2002\{202\}$ ), or 2970-2973 \{291-294\} (Independent Study in Ancient History); Philosophy $2111\{111\}$; or an appropriate course in religion at the intermediate level (numbered 2000-2969 \{200-289\}).
4. Either Art History $4000\{401\}$ or Archaeology $4000\{401\}$.

## Art History and Visual Arts

## Requirements

1. Art History: $1100\{100\}$; one course in African, Asian, or pre-Columbian art history numbered $1103\{103\}$ or higher; four additional courses numbered $2000\{200\}$ or higher; and one advanced seminar (numbered 3000-3999 \{300-399\}).
2. Visual Arts: $1101\{150\}$; and one of $1401\{180\}, 1501\{190\}$, or $1601\{195\}$; plus four other courses in the visual arts, no more than one of which may be an independent study.

## Chemical Physics

## Requirements

1. Chemistry 1102 or $1109\{102$ or 109$\}, 2510\{251\}$; Mathematics $1600\{161\}, 1700\{171\}$, and $1800\{181\}$; Physics $1130\{103\}, 1140\{104\}, 2130\{223\}$, and $2150\{229\}$.
2. Either Chemistry $2520\{252\}$ or Physics $3140\{310\}$.
3. Two courses from Chemistry $3100\{310\}, 3400\{340\}$, or approved topics in 4000 or $4001\{401$ or 402$\}$; Physics $2250\{251\}, 3000\{300\}, 3130\{320\}, 3810\{357\}$ (same as Earth and Oceanographic Science $3050\{357\}$ and Environmental Studies 3957 \{357\}), or approved topics in $4000\{401\}$ or $4001\{402\}$. At least one of these must at the advanced level (numbered 3000-3999 \{300-399\}). Other possible electives may be feasible; interested students should check with the departments.

## Computer Sgienge and Mathematics

## Requirements

1. Computer Science $1101\{101\}, 2101\{210\}$, and $2200\{231\}$.
2. Mathematics $1800\{181\}, 2000\{201\}$, and $2020\{200\}$.
3. Three additional computer science courses that satisfy the following requirements: at least one course in each of the areas Artificial Intelligence and Systems, and at least one advanced course (numbered 3000-3999 \{300-399\}).
4. Two additional mathematics courses from: $2108\{204\}$ (same as Biology $1174\{174\}$ ), 2109 $\{229\}, 2206\{225\}, 2208\{224\}, 2209\{244\}, 2601\{258\}, 2602\{262\}, 2606\{265\}, 3209\{264$ or 329$\}, 3404\{307\}$, and $4000\{401\}$. An independent study may be applied to the major upon approval of the appropriate department.
5. Each course submitted for the major must be passed with a grade of C - or better.

## English and Theater

The interdisciplinary major in English and theater focuses on the dramatic arts, broadly construed, with a significant emphasis on the critical study of drama and literature. Students of English and theater may blend introductory and advanced course work in both fields, while maintaining flexibility in the focus of their work. Honors theses in English and theater are listed as honors in English and theater, rather than in either field individually. Students completing an honors project should be guided by faculty in both fields. Students who decide to take this major are encouraged to work with advisors in both fields. Students wishing to study abroad are allowed to count two courses in approved study away programs such as the National Theater Institute or elsewhere toward the requirements for the major.

## Requirements

1. An English first-year seminar or introductory course (numbered 1100-1999 \{100-199\}).
2. One introductory theater course (numbered 1100-1999 \{100-199\}), preferably Theater $1201\{120\}$.
3. Three theater courses from the following: $1101\{101\}, 1201\{150\}, 1203\{145\}$ (same as Dance $1203\{145\}$ ), $1302\{130\}$ (same as Dance $1302\{130\}$ ), 2201 \{220\}, $2202\{225\}, 2203$ $\{270\}, 2401\{260\}$ (same as English $2850\{214\}$ ), $2402\{250\}$ (same as Dance $2402\{250\}$ ), $2501\{201\}$, or $2502\{240\}$ (same as Dance $2502\{240\}$ ).
4. One course from English $2150\{210\}$ (same as Theater $2810\{210\}$ ) or $2151\{211\}$ (same as Theater $2811\{211\}$ ).
5. One course in modern drama.
6. One advanced course in theater (numbered 3000-3999 \{300-399\}), and one advanced English seminar (numbered 3000-3999 \{300-399\}).
7. One elective in English and one elective in theater or dance at the intermediate level (numbered 2000-2969 \{200-289\}).

## Eurasian and East European Studies

The interdisciplinary major in Eurasian and East European studies combines the study of the Russian language with related courses in anthropology, economics, German, government, history, music, and gender and women's studies. The major emphasizes the common aspects of the geo-political area of Eurasia and East Europe, including the European and Asian countries of the former USSR, East Central Europe, and the Balkans. The Eurasian and East European studies (EEES) major allows students to focus their study on one cultural, social, political, or historical topic, illuminating the interrelated linkages of these countries.

This major combines multiple fields into a study of one common theme, in order to provide a multidisciplinary introduction to the larger region, while allowing for an in-depth study of the student's specific geographical area of choice. EEES independent study allows an interested student to work with one or more faculty members in order to merge introductory and advanced course work into a focused and disciplined research project. Course work in the Russian language or other regional languages is expected to start as early as possible in the student's academic career.

Careful advising and consultation with EEES faculty members is essential to plan a student's four-year program, taking into consideration course prerequisites, the rotation of courses, and/or sabbatical or research leaves. Independent study allows a student to conduct interdisciplinary research under the careful guidance of two or more advisors or readers.

## Requirements

1. Two years of Russian (Russian $1101\{101\}, 1102\{102\}, 2203\{203\}, 2204\{204\}$ ), or the equivalent in another language (i.e., Slovene, Serbian/Croatian).
2. Four courses from the concentration core courses after consultation with EEES faculty. At least one course should be at the intermediate level (numbered 2000-2969 \{200-289\}) and one at the advanced level (numbered 3000-3999 \{300-399\}). Upon petition to EEES faculty, a student completing the EEES concentration can satisfy the requirement by substituting a course from the complementary list of Russian courses (listed below) or through independent studies in those cases in which (1) faculty members are on sabbatical leave, (2) the course is not rotated often enough, (3) a course is withdrawn (as when a faculty member leaves), and/or (4) a new, related course is offered on a one-time-only basis.
3. Any two courses outside the EEES concentration to be selected from the complementary list below, one at the intermediate level (numbered 2000-2969 \{200-289\}) and one at the advanced level (numbered 3000-39999 \{300-399\}). With approval of an EEES faculty member, requirements (2) and (3) may be fulfilled in part by an independent study in the concentration or in the area of complementary courses.
4. Only one introductory course or first-year seminar may count toward the major.
5. An honors project in either concentration requires two semesters of independent study for a total of eleven courses in the major. EEES offers three levels of honors.
6. Off-campus study at an approved program is strongly recommended. Up to three courses in an approved program may be counted toward the major.

## EEES Concentration Core and Complementary Courses

(beyond Russian 2204 \{204\})

## A. Concentration in Russian/East European Politics, Economics, History, Sociology, and Anthropology.

Core courses:
Economics 2221 \{221\} b - MCSR, ESD. Marxian Political Economy
Gender and Women's Studies $2600\{275\}$ b. Gender and Sexuality in Contemporary Eastern Europe
[Government $2410\{230\}$ b. Post-Communist Russian Politics and Society]
[Government 3510 \{324\} b. Post-Communist Pathways]
History 2108 \{218\} c - ESD, IP. The History of Russia, 1725-1924
[History 2109 \{219\} c - ESD, IP. Russia's Twentieth Century: Revolution and Beyond]

## B. Complementary Courses in Eurasian and East European Literature and Culture:

German 1151 \{151\} c-ESD. The Literary Imagination and the Holocaust
[German 3317 \{317\} c - IP. German Literature and Culture since 1945]
Music $2773\{273\}$ c. Chorus (when content applies)
Russian 1022 \{22\} c. "It Happens Rarely, Maybe, but It Does Happen"-Fantasy and Satire in East Central Europe

Russian $2220\{220\}$ c - IP. Nineteenth-Century Russian Literature
Russian 2221 \{221\} c - IP, VPA. Soviet Worker Bees, Revolution, and Red Love in Russian Film (same as Gender and Women's Studies 2510 \{220\})

Russian 2223 \{223\} c. Dostoevsky and the Novel (same as Gender and Women's Studies 2221 \{221\})

## Courses in Russian:

Russian 3077 \{307\} c. Russian Folk Culture
Russian 3099 \{309\} c. Nineteenth-Century Russian Literature
Russian 3100 \{310\} c. Modern Russian Literature
Russian 3166 \{316\} c. Russian Poetry

## Mathematics and Egonomigs

## Requirements

1. Six courses in mathematics as follows: Mathematics $1800\{181\}, 2000\{201\}, 2206\{225\}$, $2606\{265\}$; and two of Mathematics $2109\{229\}, 2208\{224\}, 3108\{304$ or 318$\}, 3109$ $\{319\}, 3208\{328\}, 3209\{264$ or 329$\}$.
2. Either Computer Science $2101\{210\}$ or Mathematics $2209\{244\}$ or $3606\{305\}$.
3. Economics $2555\{255\}, 2556\{256\}, 3516\{316\}$, and one other advanced course (numbered 3000-3999 \{300-399\}).
4. Each course submitted for the major must be passed with a grade of C- or better.

## Mathematics and Education

The interdisciplinary major in mathematics and education combines the study of mathematics and pedagogy. The prescribed mathematics courses represent the breadth of preparation necessary for both the scholarly study as well as the practice of secondary school mathematics. The required education courses provide students with the theoretical knowledge and practicum-based experiences crucial to understanding the challenges of secondary mathematics education. Students completing this major are prepared to become leaders in the field of mathematics education, either as scholars or educators.

Majors in mathematics and education are eligible to apply for admission to the Bowdoin Teacher Scholars teacher certification program. Completing the major requirements in a timely fashion requires advanced planning, so students are strongly encouraged to meet with faculty from both the mathematics and education departments early in their college careers.

## Requirements

1. Eleven courses from the departments of mathematics and education, all passed with a grade of C- or better. At most two of the courses outside of education can be transfer credits from other institutions. Transfer credits are not accepted for the courses in education.
2. Mathematics $1800\{181\}, 2000\{201\}$, and $2020\{200\}$.
3. At least one mathematics course in modeling: Mathematics $2108\{204\}$ (same as Biology $1174\{174\}$ ), $2109\{229\}$, or $2208\{224\}$.
4. At least one mathematics course in algebra and analysis: Mathematics $2302\{232\}, 2303$ $\{233\}, 2602\{262\}$, or $2603\{263\}$.
5. At least one mathematics course in geometry: Mathematics $2404\{247\}$ or $3404\{307\}$.
6. At least one course in statistics: Mathematics $1200\{155\}, 1300\{165\}$, or $2606\{265\}$. This statistics requirement may alternately be met with a score of 4 or 5 on the AP Statistics exam, Economics $2557\{257\}$, or Psychology $2520\{252\}$, provided that the student also completes Mathematics $2206\{225\}$.
7. Education $1101\{101\}, 2203\{203\}, 3301$ \{301\}, and $3302\{303\}$. Students must take Education 3301 and 3302 \{301 and 303$\}$ concurrently during the fall semester of their junior or senior year.

## Interdisciplinary Studies

## First-Year Seminars

This course is open to first-year students. The main purpose of the first-year seminars (no matter what the topic or reading list) is to give first-year students extensive practice in reading and writing analytically. Each seminar is normally limited to sixteen students and includes discussion, outside reading, frequent papers, and individual conferences on writing problems. For a full description of first-year seminars, see pages 157-168.
$1010\{10\}$ b. Health Care Disparities in the United States. Fall 2013. Stephen F. Loebs.

## Introductory, Intermediate, and Advanced Courses

2401 \{241\} - MCSR. Gateway to the Digital Humanities. Fall 2013. Eric Chown and Pamela Fletcher.

Explores the possibilities and limitations of computation as applied throughout a liberal arts curriculum. Examines key issues in using computation as a tool. What sorts of questions can be asked and answered using computational methods? How do these methods complement and sometimes challenge traditional methodologies in the humanities? What are the primary tools and methods currently being used in the digital humanities? Examines these questions in the context of a series of projects. Weekly labs provide hands-on experience with the concepts and tools presented in class and an opportunity to work on the projects. Assumes no prior knowledge of computers, programming, or statistics.

## Latin American Studies

Gustavo Faverón Patriau, Program Director<br>Jean M. Harrison, Program Coordinator<br>Fellows: Laura Premack (Africana Studies)<br>Contributing Faculty: Greg Beckett, Michael Birenbaum Quintero十, Margaret Boyle, Nadia V. Celis, Elena M. Cueto Asín, Gustavo Faverón Patriau, Marcos Lopez, Stephen J. Meardon, Melissa Rosario, Krista E. Van Vleet, Hanétha Vété-Congolo, Susan E. Wegner, Allen Wells, Eugenia Wheelwright $\dagger$, Nathaniel T. Wheelwright $\dagger$, Carolyn Wolfenzon, Enrique Yepes

The Latin American Studies Program explores the history, aesthetic production, and contemporary relationships of the diverse cultural groups of Mexico, the Caribbean, Central and South America, and Latinas and Latinos in the United States. Its multidisciplinary approach is designed to integrate the scholarly methods and perspectives of several disciplines in order to foster increased understanding of Latin America's social differences and economic realities, cultural diversity, transnational connections, historical trajectories, and range of popular culture and artistic and literary expression. Competence in a language spoken in the region other than English (such as Spanish, French, or Portuguese) is required, and it is strongly recommended that students participate in an off-campus study program in Latin America.

## Requirements for the Major in Latin American Studies

The major in Latin American studies consists of nine courses, including:

1. One course, offering a survey of cultural production (literature, art, music, mass media, etc.) in Latin America, conducted in one of the languages spoken in the region other than English. Students may choose:

Latin American Studies 2407 \{206\}, Francophone Cultures (same as Africana Studies 2407 \{207\} and French 2407 \{207\}); or

Latin American Studies 2409 \{209\}, Introduction to Hispanic Studies: Poetry and Theater (same as Spanish 2409 \{209\}); or

Latin American Studies 2410 \{210\}, Introduction to Hispanic Studies: Essay and Narrative (same as Spanish $2410\{210\}$ ) or
a comparable course from off-campus study that surveys Latin American cultural production in Spanish, French, or Portuguese.
2. A survey course in Latin American history covering several countries and periods in the region. Students may choose: Latin American Studies 2401 \{252\}, Colonial Latin America (same as History 2401 \{252\}); Latin American Studies 2402 \{255\}, Modern Latin America (same as History 2402 \{255\}); or Latin American Studies 2403 \{258\}, Latin American Revolutions (same as History 2403 \{258\}).
3. An intermediate course (numbered 2500-2799 \{223, 226, 229, 235, 237, 238, 246, 247, $271,277,278\}$ ) in the social sciences (anthropology, economics, government, psychology, or sociology) that focuses on Latin America or Latinos in the United States. (Note: Students may also need to take prerequisite courses in the cross-listing department.)
4. A concentration of four additional courses centered on a particular theme (e.g., identity and inequality) and/or geographic region (e.g., the Andes, Caribbean), selected by each major in consultation with a faculty advisor in Latin American studies. The courses for the concentration should be at the intermediate level (numbered 2000-2969 \{200-289\}) or advanced level (numbered 3000-3999 \{300-399\}).
5. An elective course in Latin American studies, outside the student's concentration.
6. An advanced course (numbered 3000-3999 \{300-399\}) or Advanced Independent Study in Latin American studies during the senior year.

A maximum of three courses from off-campus study programs may count toward the major with the approval of the director of Latin American studies. Courses that will count toward the major must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C - or better in these courses.

## Requirements for the Minor in Latin American Studies

The minor consists of at least one Spanish course at Bowdoin beyond Spanish 2204 \{204\} (or another appropriate language); Latin American Studies 2402 \{255\}, Modern Latin America (same as History $2402\{255\}$ ); and three additional courses, two of which must be outside the student's major department. Independent studies can meet requirements for the minor only with the approval by the director of Latin American studies of a written prospectus of the project. A maximum of two courses from off-campus study programs may count toward the minor with the approval of the director of Latin American studies. Courses that will count
toward the minor must be taken for regular letter grades (not Credit/D/Fail), and students must earn grades of C - or better in these courses.

## Program Honors

Students contemplating honors candidacy must have established records of A and B grades in program course offerings and must present clearly articulated proposals for scholarly research. Students must prepare and defend an honors thesis before a program faculty committee.

## Introductory, Intermediate, and Advanced Courses

$1330\{130\}$ c - IP. Introduction to the Arts of Ancient Mexico and Peru. Spring 2014. Susan Wegner.

A chronological survey of the arts created by major cultures of ancient Mexico and Peru. Mesoamerican cultures studied include the Olmec, Teotihuacan, the Maya, and the Aztec up through the arrival of the Europeans. South American cultures such as Chavin, Naca, and Inca are examined. Painting, sculpture, and architecture considered in the context of religion and society. Readings in translation include Mayan myth and chronicles of the conquest. (Same as Art History 1300 \{130\}.)
[1337 \{137\} c - ESD, VPA. CuBop, Up-Rock, Boogaloo, and Banda: Latinos Making Music in the United States. (Same as Music 1269 \{137\}.)]
2005 \{250\} c - ESD. The Making of a Race: Latino Fictions. Fall 2013. Nadia V. Celis.
Explores the creation, representation, and marketing of U.S. Latino/a identities in American literature and popular culture from the 1960s. Focuses on the experience of artists and writers of Puerto Rican, Cuban, and Dominican origin; their negotiations with notions of race, class, gender, and sexuality in the United States; and their role in the struggle for social rights, in cultural translation, and in the marketing of ethnic identities, as portrayed in a variety of works ranging from movies and songs to poetry and narrative. Authors include Pietri, Blades, Álvarez, Hijuelos, Braschi, Ovejas, Díaz, and Quiñones. Readings and writing in English, discussions in Spanish. Spanish speaking skills required. (Same as English $2570\{250\}$ and Spanish 2505 \{250\}.)
2104 \{266\} c - IP. History of Mexico. Spring 2014. Allen Wells.
A survey of Mexican history from pre-Columbian times to the present. Topics include the evolving character of indigenous societies, the nature of the Encounter, the colonial legacy, the chaotic nineteenth century, the Mexican Revolution, and United States-Mexican relations. Contemporary problems are also addressed. (Same as History 2404 \{266\}.)
$2110\{221\}$ c. Beyond Capoeira: History and Politics of Afro-Brazilian Culture. Spring 2014. Laura Premack.

Seminar. Brazil has the largest population of African descent outside Africa. Nowadays, Brazilians pride themselves on their country's unique racial and cultural heritage, but for centuries, many Afro-Brazilian practices were illegal. The Afro-Brazilian renaissance currently underway is something to be celebrated, but it is also something to be questioned. Do these efforts to delineate, praise, and preserve Afro-Brazilian culture actually limit our understanding of it? Has labeling certain aspects of Brazilian cultural heritage as African created a situation in which other ways that Africa has influenced Brazil are overlooked? Just what is meant by "African" and "Brazilian" anyhow? Takes a historical and anthropological approach to these and other related questions. (Same as Africana Studies $2210\{210\}$ and History 2871 \{200\}.)

2160 \{253\} c. The United States and Latin America: Tempestuous Neighbors. Fall 2014. Allen Wells.

Seminar. Examines scholarship on the evolution of United States-Latin American relations since Independence. Topics include the Monroe Doctrine, commercial relations, interventionism, Pan Americanism, immigration, and revolutionary movements during the Cold War. (Same as History $2860\{253\}$.)

2161 \{254\} c. Contemporary Argentina. Spring 2014. Allen Wells.
Seminar. Texts, novels, and films help unravel Argentine history and culture. Topics examined include the image of the gaucho and national identity; the impact of immigration; Peronism; the tango; the Dirty War; and the elusive struggle for democracy, development, and social justice. (Same as History 2861 \{254\}.)
2180 \{236\} c - ESD. Borderlands and Empires in Early North America. Spring 2014. Matthew Klingle.

Survey of the making of North America from initial contact between Europeans and Africans and Native Americans to the creation of the continent's three largest nations by the mid-nineteenth century: Canada, Mexico, and the United States. Topics include the history of Native populations before and after contact, geopolitical and imperial rivalries that propelled European conquests of the Americas, evolution of free and coerced labor systems, environmental transformations of the continent's diverse landscapes and peoples, formation of colonial settler societies, and the emergence of distinct national identities and cultures in former European colonies. Students write several papers and engage in weekly discussion based upon primary and secondary documents, art, literature, and material culture. (Same as Environmental Studies 2425 \{235\} and History 2180 \{235\}.)

2205 \{205\} c. Advanced Spanish. Every semester. Fall 2013. María Báez Marco, Margaret Boyle, and Enrique Yepes. Spring 2014. Nadia V. Celis and Elena Cueto Asín.

The study of topics in the political and cultural history of the Spanish-speaking world in the twentieth century, together with an advanced grammar review. Covers a variety of texts and media and is designed to increase written and oral proficiency, as well as appreciation of the intellectual and artistic traditions of Spain and Latin America. Foundational course for the major. Three class hours per week and one weekly conversation session with assistant. (Same as Spanish 2305 \{205\}.)
Prerequisite: Spanish 2204 \{204\} or placement in Spanish $2305\{205\}$.
2211 \{213\} c - ESD, IP. Introduction to the Study and Criticism of Francophone
Literature. Every spring. Spring 2014. Hanétha Vété-Congolo.
Introduces students to the literary tradition of the Francophone world. Focuses on major authors and literary movements in historical and cultural context. Conducted in French. (Same as Africana Studies 2411 \{209\} and French 2411 \{211\}.)

Prerequisite: French $2305\{205\}$ or higher, or permission of the instructor.
2302 \{202\} c - IP. Demons and Deliverance in the Atlantic World. Fall 2013. Laura Premack.

Seminar. Examines beliefs and practices having to do with evil spirits, demons, and the Devil in Africa, Latin America, the Caribbean, the United States, and Western Europe. The primary focus is exorcism. What is it? How has it been practiced? By whom? Why? The approach to
the subject is historical, transnational, and diasporic; examines changes and continuities across the Atlantic over the past five hundred years, beginning with cultural encounters between Africans, Native Americans, and Europeans during the colonial period and continuing up through the reverse missionization and the new African diaspora of the present day. Readings include works of ethnography, anthropology, theology, history, personal narrative, and fiction. (Same as Africana Studies $2202\{202\}$.)

2401 \{252\} c - IP. Colonial Latin America. Fall 2014. Allen Wells.
Introduces students to the history of Latin America from pre-Columbian times to about 1825. Traces developments fundamental to the establishment of colonial rule, drawing out regional comparisons of indigenous resistance and accommodation. Topics include the nature of indigenous societies encountered by Europeans; exploitation of African and Indian labor; evangelization and the role of the church; the evolution of race, gender, and class hierarchies in colonial society; and the origins of independence in Spanish America and Brazil. Note: This course fulfills the pre-modern requirement for history majors. (Same as History 2401 \{252\}.)
$2402\{255\}$ c - IP. Modern Latin America. Fall 2013. Allen Wells.
Traces the principal economic, social, and political transformations from the wars of independence to the present. Topics include colonial legacies and the aftermath of independence, the consolidation of nation-states and their insertion in the world economy, the evolution of land and labor systems, the politics of reform and revolution, and the emergence of social movements. (Same as History 2402 \{255\}.)

2403 \{258\} c - IP. Latin American Revolutions. Spring 2015. Allen Wells.
Examines revolutionary change in Latin America from a historical perspective, concentrating on four cases of attempted revolutionary change-Cuba, Chile, Nicaragua, and Venezuela. Popular images and orthodox interpretations are challenged and new propositions about these processes are tested. External and internal dimensions of each of these social movements are analyzed and each revolution is discussed in the full context of the country's historical development. (Same as History 2403 \{258\}.)

2407 \{206\} c - ESD, IP. Francophone Cultures. Every fall. Fall 2013. Hanétha Vété-Congolo.

An introduction to the cultures of various French-speaking regions outside of France. Examines the history, politics, customs, cinema, and the arts of the Francophone world, principally Africa and the Caribbean. Conducted in French. (Same as Africana Studies 2407 \{207\} and French 2407 \{207\}.)

Prerequisite: French $2305\{205\}$ or higher, placement in French $2407\{207\}$, or permission of the instructor.

2409 \{209\} c - IP. Introduction to Hispanic Studies: Poetry and Theater. Every semester. Fall 2013. Elena Cueto Asín. Spring 2014. Margaret Boyle and Enrique Yepes.

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of poetry and theater. Examines major literary works and movements in their historical and cultural context. One weekly workshop with assistant in addition to class time. Conducted in Spanish. (Same as Spanish 2409 \{209\}.)

Prerequisite: Spanish 2305 \{205\} (same as Latin American Studies $2205\{205\}$ ) or permission of the instructor.
$2410\{210\}$ c - IP. Introduction to Hispanic Studies: Essay and Narrative. Every semester. Fall 2013. Nadia V. Celis and Carolyn Wolfenzon. Spring 2014. Nadia V. Celis.

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of essay and narrative. Examines major literary works and movements in their historical and cultural context. (Same as Spanish $2410\{210\}$.)

Prerequisite: Spanish 2305 \{205\} (same as Latin American Studies $2205\{205\}$ ) or permission of the instructor.
$2626\{226\}$ b - IP. Political Economy of Pan-Americanism. Fall 2014 or Spring 2015. Stephen Meardon.

Examines programs for economic and political integration of the Americas from the early nineteenth century to the present. Surveys the material and ideological motives for PanAmericanism from the Congress of Panama (1826) to the Organization of American States (1948), the draft of a Free Trade Area of the Americas (2001), and beyond. Different forms of integration are evaluated in light of historical consequences and economic ideas. (Same as Economics 2226 \{226\}.)

Prerequisite: Economics 1101 \{101\} or placement above Economics 1101 \{101\}.
$2708\{278\}$ b. Race and Ethnicity. Fall 2013. Ingrid Nelson.
The social and cultural meaning of race and ethnicity, with emphasis on the politics of events and processes in contemporary America. Analysis of the causes and consequences of prejudice and discrimination. Examination of the relationships between race and class. Comparisons among racial and ethnic minorities in the United States. (Same as Africana Studies 2208 \{208\} and Sociology 2208 \{208\}.)

Prerequisite: Sociology 1101 \{101\}, Africana Studies 1101 \{101\}, or Anthropology 1101 $\{101\}$, or permission of the instructor.
[2711 \{271\} b. The Caribbean in the Atlantic World. (Same as Anthropology 2711 \{271\}.)]
[2724 \{223\} b - ESD. Religion and Social Transformation in South America. (Same as Anthropology 2723 \{224\}.)
[2738 \{238\} b - IP. Culture and Power in the Andes. (Same as Anthropology 2729 \{238\}.)]
2746 \{246\} b. Immigration and the Politics of Exclusion. Fall 2013. Marcos Lopez.
The United States, like other nations in the global north, relies on immigrants. Looks at comparative lessons in global immigration to understand the political, economic, and social causes of migration-the politics of immigrant inclusion/exclusion-and the making of diaspora communities. Specific topics will include: the politics of citizenship and the condition of illegality; the global migrant workforce; and how class, gender, race, and sexuality influence the migrant experience. (Same as Sociology 2370 \{237\}.)
Prerequisite: Sociology $1101\{101\}$ or Anthropology $1101\{101\}$, or permission of the instructor.
[2771 \{277\} b. Children and Youth in Global Perspective. (Same as Anthropology 2371 \{277\}.)]

## 2774 b. The Borderlands of United States Empire: Puerto Rican Identities and

 Histories. Spring 2014. Melissa Rosario.Using Puerto Rico as a case study from which to study borderlands theory, focuses on Puerto Rico's unique political status in history, describing how its relationship to the United States as "foreign in a domestic sense" has shaped Puerto Rican identity and community formation. Topical focus placed on questions of language and representation, migration patterns, and relationships between mainland and island-based populations, as well as the psychological effects of colonialism. Develops students' understanding that borders are both literal and metaphorical, but have real material effects on the unequal treatment of certain groups, even those purported to be part of the same nation-state. (Same as Anthropology 2274.)

Prerequisite: Anthropology 1101 \{101\} or Sociology 1101 \{101\}, or permission of the instructor.

3005 \{305\} c - ESD. The Making of a Race: Latino Fictions. Fall 2013. Nadia V. Celis.
Explores the creation, representation, and marketing of U.S. Latino/a identities in American literature and popular culture from the 1960s. Focuses on the experience of artists and writers of Puerto Rican, Cuban, and Dominican origin; their negotiations with notions of race, class, gender, and sexuality in the United States; and their role in the struggle for social rights, in cultural translation, and in the marketing of ethnic identities, as portrayed in a variety of works ranging from movies and songs to poetry and narrative. Authors include Pietri, Blades, Álvarez, Hijuelos, Braschi, Ovejas, Díaz, and Quiñones. Readings in English, discussions and writing in Spanish. (Same as English 2571 \{221\} and Spanish 3005 \{305\}.)
Prerequisite: Spanish 2409 \{209\} (same as Latin American Studies 2409 \{209\}) or $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ).

3101 \{352\} c. The Mexican Revolution. Spring 2015. Allen Wells.
An examination of the Mexican Revolution (1910-1920) and its impact on modern Mexican society. Topics include the role of state formation since the revolution, agrarian reform, United States-Mexican relations, immigration, and other border issues. (Same as History 3401 \{351\}.)
3103 \{356\} c. The Cuban Revolution. Fall 2013. Allen Wells.
The Cuban Revolution recently celebrated its fiftieth anniversary. Offers a retrospective of a Revolution entering "middle age" and its prospects for the future. Topics include United States-Cuban relations, economic and social justice versus political liberty, gender and race relations, and literature and film in a socialist society. (Same as History 3403 \{356\}.)
[3201 \{330\} c. Andean Modernities. (Same as Spanish 3201 \{321\}.)]
[3204 \{304\} c. Dress and Body Politics in Latin America. (Same as Spanish 3004 \{304\}.)]
[3217 \{317\} c. Childhood Memories: Reflections on Self and Home in the Postcolonial Francophone Caribbean. (Same as Africana Studies 3317 \{317\} and French 3209 \{317\}.)]
[3218 \{318\} c. A Journey around Macondo: García Márquez and His Contemporaries. (Same as Spanish 3218 \{318\}.)]
[3220 \{320\} c. Beyond the Postcard: The Hispanic Caribbean. (Same as Africana Studies $3320\{320\}$ and Spanish $3220\{320\}$. .)]

3222 \{322\} c. Voices of Women, Voices of the People. Spring 2014. Hanétha Vété-Congolo.
Focuses on texts written by women from former West Africa and the Caribbean. Themes treated-womanhood, colonization, slavery, race, individual and collective identity, relationships between men and women, independence, tradition, modernism, and alienationare approached from historical, anthropological, political, social, and ideological perspectives. Readings by Mariama Bâ, Aminata Sow Fall (Sénégal); Tanella Boni (Côte d'Ivoire); Maryse Condé, Gisèle Pineau, Simone Schwartz-Bart (Guadeloupe); Ina Césaire, Fabienne Kanor, Suzanne Dracius (Martinique); and Marie Chauvet, Marie-Célie Agnant, and Kettly Mars (Haiti). (Same as Africana Studies 3201 \{321\}, French 3201 \{322\}, and Gender and Women's Studies 3323 \{323\}.)

Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies 2407 \{206\}) or 2408 \{208\}; French 2409 \{209\}, $2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.
[3229 \{329\} c. Short Cuts: The Latin American Nouvelle. (Same as Spanish 3229 \{329\}.)]
[ 3236 \{336\} c. Reading Images: Intersections of Art, Film, and Literature in Contemporary Latin America. (Same as Spanish 3236 \{336\}.)]

3237 \{337\} c. Hispanic Short Story. Fall 2013. Gustavo Faverón Patriau.
An investigation of the short story as a literary genre, beginning in the nineteenth century, involving discussion of its aesthetics, as well as its political, social, and cultural ramifications in the Spanish-speaking world. Authors include Pardo Bazán, Echevarría, Borges, Cortázar, García Márquez, Ferré, and others. (Same as Spanish 3237 \{337\}.)

Prerequisite: Two of the following: Spanish 2409 \{209\} (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.
[3243 \{343\} c. Imaginary Cities/Real Cities in Latin America. (Same as Spanish 3243 \{343\}.)]
[ 3244 \{ 344$\}$ c. Bad Girls on Stage in Early Modern Spain and Spanish America. (Same as Gender and Women's Studies 3001 \{344\} and Spanish 3244 \{344\}.)]
3245 \{345\} c. Ecological Thought in Latin American Literature. Fall 2013. Enrique Yepes.
Explores how the radical interconnectedness postulated by ecological thinking can be read in Latin American narrative, essay, film, and poetry from the 1920s to the present. Includes a review of cultural ecology as well as an overview of environmental history and activism in the region. (Same as Environmental Studies 2485 \{285\} and Spanish 3245 \{345\}.)
Prerequisite: Two of the following: Spanish 2409 \{209\} (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.
[3247 \{347\} c. Translating Cultures. (Same as Spanish 3247 \{347\}.)]
3362 c. Spiritual Encounters: African Religion in the Americas. Spring 2014. Laura Premack.

Investigates how African, European, and indigenous beliefs about the spirit world have combined in the development of African diasporic religion in the Americas. Historicizes and theorizes the development of several varieties, focusing particularly on Candomblé, Umbanda,
and Spiritism in Brazil. Also considers Santería in Cuba, the Dominican Republic, and New York; Vodun in Haïti; Hoodoo in the Mississippi Delta; and Obeah in Jamaica and Guyana. Explores concepts of syncretism, hybridity, cultural encounter, identity, performance, and diaspora. (Same as Africana Studies 3362. )
Prerequisites: One course in Africana studies or Latin American studies, or permission of instructor.

3711 \{311\} b - ESD, IP. Global Sexualities/Local Desires. Fall 2013. Krista Van Vleet.
Explores the variety of practices, performances, and ideologies of sexuality through a crosscultural perspective. Focusing on contemporary anthropological scholarship on sexuality and gender, asks how Western conceptions of "sexuality," "sex," and "gender" help (or hinder) our understanding of the lives and desires of people in other social and cultural contexts. Topics may include "third gendered" individuals; intersexuality and the naturalization of sex; language and the performance of sexuality; drag; global media and the construction of identity; lesbian and gay families; sex work; AIDS and HIV and health policy; migration, asylum and human rights issues; ethical issues and activism. Ethnographic examples are drawn from United States, Latin America (Brazil, Dominican Republic, Mexico, Argentina, Cuba); Asia (India, Japan, Indonesia) and Oceania (Papua New Guinea); and Africa (Nigeria, South Africa). Presents issues of contemporary significance along with key theoretical perspectives and methodological approaches used by anthropologists. Integrates perspectives on globalization and the intersection of multiple social differences (including class, race, and ethnicity) with discussion of sexuality and gender. Not open to students with credit in Anthropology 210 (same as Gay and Lesbian Studies 210, Gender and Women's Studies 210, and Latin American Studies 211). (Same as Anthropology $3100\{313\}$, Gay and Lesbian Studies $3100\{313\}$, and Gender and Women's Studies $3100\{313\}$.)

Prerequisite: Anthropology $1101\{101\}$ or Sociology $1101\{101\}$, or permission of the instructor.

4000-4001 \{401-402\} c. Advanced Independent Study and Honors in Latin American Studies. The Program.
$4029\{405\}$ c. Advanced Collaborative Study in Latin American Studies. The Program.
4050-4051 c. Honors Project in Latin American Studies. The Program.

# Mathematics 

William Barker, Department Chair<br>Suzanne M. Theberge, Senior Department Coordinator<br>Professors: William Barker, Adam B. Levy, Jennifer Taback, Mary Lou Zeeman $\dagger$<br>Associate Professor: Thomas Pietraho<br>Assistant Professors: John O’Brien, Amanda Redlich, Manuel Reyes<br>Lecturers: Eric Gaze, Michael King<br>Visiting Faculty: Miriam Logan, Mohammad Tajdari<br>Fellow: Justin Marks

## Requirements for the Major in Mathematics

A major consists of at least eight courses numbered $2000\{200\}$ or higher, including Mathematics 2000 and $2020\{201$ and 200$\}$ (or their equivalents), and an advanced course (numbered 3000-3969 \{300-399\}). Students who have already mastered the material in Mathematics 2000 and $2020\{201$ and 200$\}$ may substitute a more advanced course after receiving approval from the department chair. Each of the eight courses required for the major must be graded with regular letter grades and passed with a grade of C - or better. At most two of these eight courses can be transfer credits from other institutions.

A student must submit a planned program of courses to the department when he or she declares a major. That program should include both theoretical and applied mathematics courses, and it may be changed later with the approval of the departmental advisor.

The requirement of an advanced course (numbered 3000-3969 \{300-399\}) is meant to ensure that all majors have sufficient experience in at least one specific area of mathematics. Those areas are algebra (Mathematics $2000\{201\}, 2602\{262\}$, and $3602\{302\}$ ); analysis (Mathematics $2303\{233\}, 2603\{263\}$, and $3603\{303\}$ ); modeling and dynamics (Mathematics $2208\{224\}, 3108\{304$ or 318$\}$, and $3208\{328\}$ ); optimization and numerical methods (Mathematics $2109\{229\}, 2209\{244\}, 3109\{319\}$, and 3209 \{264 or 329\}); probability and statistics (Mathematics $2206\{225\}, 2606\{265\}$, and $3606\{305\}$ ); and geometry (Mathematics $2404\{247\}$, and $3404\{307\}$ ).

In exceptional circumstances, a student may substitute a quantitative course from another department for one of the eight mathematics courses required for the major, but such a substitution must be approved in advance by the department. Without specific departmental approval, no course that counts toward another department's major or minor may be counted toward a mathematics major or minor.

Majors who have demonstrated that they are capable of intensive advanced work are encouraged to undertake independent study projects. With the prior approval of the department, such a project counts toward the major requirement and may lead to graduation with honors in mathematics.

## Requirements for the Minor in Mathematics

A minor in mathematics consists of a minimum of four courses numbered $2000\{200\}$ or higher. Each of the four courses required for the minor must be graded with regular letter grades and passed with a grade of C- or better. At most one of these four courses can be a transfer credit from another institution.

## Interdisciplinary Majors

The department participates in three interdisciplinary joint majors: computer science and mathematics, mathematics and economics, and mathematics and education. See pages 217 and 219-220.

## Recommended Courses

Listed below are some of the courses recommended to students with the indicated interests.
For secondary school teaching:
Computer Science 1101 \{101\}; Mathematics $2000\{201\}, 2020\{200\}, 2108\{204\}$ (same as Biology $1174\{174\}$ ), $2109\{229\}, 2208\{224\}, 2302\{232\}, 2303\{233\}, 2404\{247\}, 2602$ $\{262\}, 2603\{263\}, 2606\{265\}$.

For graduate study:
Mathematics $2000\{201\}, 2020\{200\}, 2303\{233\}, 2501\{253\}, 2602\{262\}, 2603\{263\}$, and at least two advanced courses (numbered 3000-3999 \{300-399\}).

## For engineering and applied mathematics:

Mathematics $2000\{201\}, 2108\{204\}$ (same as Biology $1174\{174\}$ ), $2206\{225\}, 2208\{224\}$, $2209\{244\}, 2303\{233\}, 2501\{253\}, 2601\{258\}, 2606\{265\}, 3108\{304$ or 318$\}, 3109$ $\{319\}, 3208\{328\}$, and 3209 \{264 or 329$\}$.

For mathematical economics and econometrics:
Mathematics $2000\{201\}, 2109\{229\}, 2206\{225\}, 2209\{244\}, 2603\{263\}, 2606\{265\}$, $3108\{304$ or 318$\}, 3109\{319\}, 3208\{328\}, 3209\{264$ or 329$\}, 3606\{305\}$, and Economics 3516 \{316\}.

For statistics:
Mathematics $2000\{201\}, 2206\{225\}, 2208\{224\}, 2209\{244\}, 2606\{265\}, 3606\{305\}$.
For computer science:
Computer Science $2200\{231\}, 2210\{289\}$; Mathematics $2000\{201\}, 2020\{200\}, 2109$ $\{229\}, 2206\{225\}, 2209\{244\}, 2601\{258\}, 2602\{262\}, 2606\{265\}, 3209\{264$ or 329$\}$, and $3404\{307\}$.

For operations research and management science:
Mathematics $2000\{201\}, 2020\{200\}, 2109\{229\}, 2206\{225\}, 2601\{258\}, 2606\{265\}$, 3109 \{319\}, $3606\{305\}$, and Economics 3516 \{316\}.

## Introductory, Intermediate, and Advanced Courses

1050 \{50\} - MCSR. Quantitative Reasoning. Every semester. Eric Gaze.
Explores the ways and means by which we communicate with numbers; the everyday math we encounter on a regular basis. The fundamental quantitative skill set is covered in depth providing a firm foundation for further coursework in mathematics and the sciences. Topics include ratios, rates, percentages, units, descriptive statistics, linear and exponential modeling, correlation, logic, probability. A project-based course using Microsoft Excel, emphasizing conceptual understanding and application. Reading of current newspaper articles and exercises involving personal finance are incorporated to place the mathematics in real-world context.
$1200\{155\}$ a - MCSR. Introduction to Statistics and Data Analysis. Every fall. Fall 2013. Michael King.

A general introduction to statistics in which students learn to draw conclusions from data using statistical techniques. Examples are drawn from many different areas of application. The computer is used extensively. Topics include exploratory data analysis, planning and design of experiments, probability, one and two sample t-procedures, and simple linear regression. Not open to students who have credit for Mathematics $1300\{165\}$, Psychology $2520\{252\}$, or Economics 2557 \{257\}.

1300 \{165\} a - MCSR. Biostatistics. Every semester. Fall 2013. John O’Brien. Spring 2014. The Department.

An introduction to the statistical methods used in the life sciences. Emphasizes conceptual understanding and includes topics from exploratory data analysis, the planning and design of experiments, probability, and statistical inference. One and two sample t-procedures and their non-parametric analogs, one-way ANOVA, simple linear regression, goodness of fit tests, and the chi-square test for independence are discussed. An average of four to five hours of class meetings and computer laboratory sessions per week. Not open to students who have credit for or are concurrently enrolled in Mathematics $1200\{155\}$, Economics 2557 \{257\}, or Psychology $2520\{252\}$.
$1600\{161\}$ a - MCSR. Differential Calculus. Every semester. The Department.
Functions, including the trigonometric, exponential, and logarithmic functions; the derivative and the rules for differentiation; the anti-derivative; applications of the derivative and the antiderivative. Four to five hours of class meetings and computer laboratory sessions per week, on average. Open to students who have taken at least three years of mathematics in secondary school.

Prerequisite: Placement in Mathematics $1600\{161\}$.
$1700\{171\}$ a - MCSR. Integral Calculus. Every semester. The Department.
The definite integral; the Fundamental theorems; improper integrals; applications of the definite integral; differential equations; and approximations including Taylor polynomials and Fourier series. An average of four to five hours of class meetings and computer laboratory sessions per week.

Prerequisite: Mathematics $1600\{161\}$ or placement in Mathematics $1700\{171\}$.
$1750\{172\}$ a - MCSR. Integral Calculus, Advanced Section. Every fall. The Department.
A review of the exponential and logarithmic functions, techniques of integration, and numerical integration. Improper integrals. Approximations using Taylor polynomials and infinite series. Emphasis on differential equation models and their solutions. An average of four to five hours of class meetings and computer laboratory sessions per week. Open to students whose backgrounds include the equivalent of Mathematics $1600\{161\}$ and the first half of Mathematics $1700\{171\}$. Designed for first-year students who have completed an AB Advanced Placement calculus course in their secondary schools.
Prerequisite: Placement in Mathematics $1750\{172\}$.
1800 \{181\} a - MCSR. Multivariate Calculus. Every semester. The Department.
Multivariate calculus in two and three dimensions. Vectors and curves in two and three dimensions; partial and directional derivatives; the gradient; the chain rule in higher
dimensions; double and triple integration; polar, cylindrical, and spherical coordinates; line integration; conservative vector fields; and Green's theorem. An average of four to five hours of class meetings and computer laboratory sessions per week.

Prerequisite: Mathematics $1700\{171\}$ or $1750\{172\}$, or placement in Mathematics 1800 \{181\}.
$2000\{201\}$ a - MCSR. Linear Algebra. Every semester. Fall 2013. Thomas Pietraho, Manuel Reyes. Spring 2014. The Department.
Topics include vectors, matrices, vector spaces, inner product spaces, linear transformations, eigenvalues and eigenvectors, and quadratic forms. Applications to be chosen from linear equations, discrete dynamical systems, Markov chains, least-squares approximation, and Fourier series.

Prerequisite: Mathematics $1800\{181\}$, placement in Mathematics 2000 level, or permission of the instructor.
$2020\{200\}$ a - MCSR. Introduction to Mathematical Reasoning. Every semester. Fall 2013. Jennifer Taback. Spring 2014. The Department.
An introduction to logical deductive reasoning and mathematical proof through diverse topics in higher mathematics. Specific topics include set and function theory, modular arithmetic, proof by induction, and the cardinality of infinite sets. May also consider additional topics such as graph theory, number theory, and finite state automata.

Prerequisite: Mathematics $1800\{181\}$, placement in Mathematics 2000 level, or permission of the instructor.

2108 \{204\} a - MCSR. Biomathematics. Fall 2014. Mary Lou Zeeman.
A study of mathematical modeling in biology, with a focus on translating back and forth between biological questions and their mathematical representation. Biological questions are drawn from a broad range of topics, including disease, ecology, genetics, population dynamics, and neurobiology. Mathematical methods include discrete and continuous (ODE) models and simulation, box models, linearization, stability analysis, attractors, oscillations, limiting behavior, feedback, and multiple time-scales. Three hours of class meetings and 1.5 hours of computer laboratory sessions per week. Within the biology major, this course may count as the mathematics credit or as biology credit, but not both. Students are expected to have taken a year of high school or college biology prior to this course. (Same as Biology 1174 \{174\}.)
Prerequisite: Mathematics $1600\{161\}$ or higher, placement in Mathematics 2108, or permission of the instructor.

2109 \{229\} a - MCSR. Optimization. Every other year. Fall 2013. Adam Levy.
A study of optimization problems arising in a variety of situations in the social and natural sciences. Analytic and numerical methods are used to study problems in mathematical programming, including linear models, but with an emphasis on modern nonlinear models. Issues of duality and sensitivity to data perturbations are covered, and there are extensive applications to real-world problems.

Prerequisite: Mathematics $1800\{181\}$, placement in Mathematics 2000 level, or permission of the instructor.

2206 \{225\} a - MCSR. Probability. Every semester. Fall 2013. Amanda Redlich. Spring 2014. The Department.

A study of the mathematical models used to formalize nondeterministic or "chance" phenomena. General topics include combinatorial models, probability spaces, conditional probability, discrete and continuous random variables, independence, and expected values. Specific probability densities, such as the binomial, Poisson, exponential, and normal, are discussed in depth.

Prerequisite: Mathematics $1800\{181\}$, placement in Mathematics 2000 level, or permission of the instructor.

2208 \{224\} a - MCSR. Ordinary Differential Equations. Fall 2013. Mohammad Tajdari.
A study of some of the ordinary differential equations that model a variety of systems in the physical, natural, and social sciences. Classical methods for solving differential equations with an emphasis on modern, qualitative techniques for studying the behavior of solutions to differential equations. Applications to the analysis of a broad set of topics, including population dynamics, oscillators, and economic markets. Computer software is used as an important tool, but no prior programming background is assumed.

Prerequisite: Mathematics $2000\{201\}$ or permission of the instructor.
2209 \{244\} a - MCSR. Numerical Methods. Every other fall. Fall 2013. Adam Levy.
An introduction to the theory and application of numerical analysis. Topics include approximation theory, numerical integration and differentiation, iterative methods for solving equations, and numerical analysis of differential equations.

Prerequisite: Mathematics $2000\{201\}$ or permission of the instructor.
2301 \{231\} a - MCSR. Intermediate Linear Algebra. Spring 2014. The Department.
A continuation of Linear Algebra focused on the interplay of algebra and geometry as well as mathematical theory and its applications. Topics include matrix decompositions, eigenvalues and spectral theory, vector and Hilbert spaces, norms and low-rank approximations. Applications to biology, computer science, economics, and statistics, including artificial learning and pattern recognition, principal component analysis, and stochastic systems. Course and laboratory work balanced between theory and application.

Prerequisite: Mathematics $2000\{201\}$ and $2020\{200\}$, or permission of the instructor.
2302 \{232\} a - MCSR. Number Theory. Every other fall. Fall 2014. The Department.
A standard course in elementary number theory, which traces the historical development and includes the major contributions of Euclid, Fermat, Euler, Gauss, and Dirichlet. Prime numbers, factorization, and number-theoretic functions. Perfect numbers and Mersenne primes. Fermat's theorem and its consequences. Congruences and the law of quadratic reciprocity. The problem of unique factorization in various number systems. Integer solutions to algebraic equations. Primes in arithmetic progressions. An effort is made to collect along the way a list of unsolved problems.
Prerequisite: Mathematics $2020\{200\}$ or permission of the instructor.

2303 \{233\} a - MCSR. Functions of a Complex Variable. Every other fall. Fall 2013. Justin Marks.

The differential and integral calculus of functions of a complex variable. Cauchy's theorem and Cauchy's integral formula, power series, singularities, Taylor's theorem, Laurent's theorem, the residue calculus, harmonic functions, and conformal mapping.
Prerequisite: Mathematics $1800\{181\}$, placement in Mathematics 2000 level, or permission of the instructor.

2404 \{247\} a - MCSR. Geometry. Fall 2015. The Department.
A survey of modern approaches to Euclidean geometry in two dimensions. Axiomatic foundations of metric geometry. Transformational geometry: isometries and similarities. Klein's Erlanger Programm. Symmetric figures. Other topics may be chosen from threedimensional geometry, ornamental groups, area, volume, fractional dimension, and fractals.
Prerequisite: Mathematics $2020\{200\}$ or permission of the instructor.
2501 \{253\} a - MCSR. Vector Calculus. Every other spring. Spring 2015. The Department.
A study of vector calculus based on linear algebra. The central unifying theme is the theory and application of differential forms. Topics include the derivative as a linear transformation between Euclidean spaces; the Inverse Function Theorem and the Implicit Function Theorem; multiple integration and the Change of Variables Theorem; vector fields, tenors, and differential forms; line and surface integration; integration of differential forms; the exterior derivative; closed and exact forms; the generalized Stokes' Theorem; gradient, curl, divergence and the integral theorems of Green, Gauss, and Stokes; manifolds in Euclidean space; applications in the physical sciences.
Prerequisite: Mathematics $2000\{201\}$.
2502 \{252\} a - MCSR. Mathematical Cryptography. Fall 2013. Michael King.
Classical and modern methods of cryptography and cryptanalysis. Topics include public key cryptography and the RSA encryption algorithm, factoring techniques, and recently proposed cryptosystems based on group theory and graph theory.
Prerequisite: Mathematics $2020\{200\}$ or permission of the instructor.
2601 \{258\} a - MCSR. Combinatorics and Graph Theory. Every other fall. Fall 2014. The Department.

An introduction to combinatorics and graph theory. Topics to be covered may include enumeration, matching theory, generating functions, partially ordered sets, Latin squares, designs, and graph algorithms.

Prerequisite: Mathematics $2020\{200\}$ or permission of the instructor.
$2602\{262\}$ a - MCSR. Introduction to Algebraic Structures. Every year. Fall 2013. Jennifer Taback.

An introduction to the theory of finite and infinite groups, with examples ranging from symmetry groups to groups of polynomials and matrices. Properties of mappings that preserve algebraic structures are studied. Topics include cyclic groups, homomorphisms and isomorphisms, normal subgroups, factor groups, the structure of finite abelian groups, and Sylow theorems.

Prerequisite: Mathematics $2000\{201\}$ and $2020\{200\}$, or permission of the instructor.

2603 \{263\} a - MCSR. Introduction to Analysis. Every year. Spring 2014. The Department.
Building on the theoretical underpinnings of calculus, develops the rudiments of mathematical analysis. Concepts such as limits and convergence from calculus are made rigorous and extended to other contexts, including spaces of functions. Specific topics include metric spaces, point-set topology, sequences and series, continuity, differentiability, the theory of Riemann integration, functional approximation, and convergence.

Prerequisite: Mathematics $2020\{200\}$. (A different mathematics course numbered 2000-2969 \{200-289\} may be used instead, with approval from the instructor.)
2604 \{267\} a - MCSR. Topology. Spring 2015. The Department.
Topology studies those properties of objects that are preserved under continuous changes. Examines abstract definition of a topology and examples of topological spaces, connectedness and compactness, countability and separation axioms, classification of surfaces, algebraic topology-including homotopy, the fundamental group, covering spaces, and introductory category theory.
Prerequisite: Mathematics $2020\{200\}$ or permission of the instructor.
2606 \{265\} a - MCSR. Statistics. Every spring. Spring 2015. John O’Brien.
An introduction to the fundamentals of mathematical statistics. General topics include likelihood methods, point and interval estimation, and tests of significance. Applications include inference about binomial, Poisson, and exponential models, frequency data, and analysis of normal measurements.

Prerequisite: Mathematics $2206\{225\}$ or permission of the instructor.
2970-2973 \{291-294\} a. Intermediate Independent Study in Mathematics.
The Department.
2999 \{299\} a. Intermediate Collaborative Study in Mathematics. The Department.
3108 \{304 or 318\} a. Advanced Topics in Modeling. Fall 2015. Mary Lou Zeeman.
Development, analysis, and simulation of mathematical models. Application topics drawn from a variety of disciplines such as biology, environmental sciences, earth and oceanographic sciences, climate, and sustainability. Analysis topics include oscillation, chaos, bistability, bifurcation, perturbation, resilience, and their consequences for prediction. Three hours of class meetings and 1.5 hours of computer laboratory sessions per week. Not open to students who have credit for Mathematics 304.

Prerequisite: Mathematics $2000\{201\}, 2020\{200\}$, and $2208\{224\}$.
3109 a. Advanced Topics in Optimization. Spring 2014. Adam Levy.
A study of infinite-dimensional optimization, including calculus of variations and optimal control. Classical, analytic techniques are covered, as well as numerical methods for solving optimal control problems. Applications in many topic areas, including economics, biology, and robotics.

Prerequisite: Mathematics $2000\{201\}, 2109\{229\}$, and $2208\{224\}$.
3208 a. Advanced Topics in Dynamical Systems. Spring 2015. Mary Lou Zeeman.
Selected topics in nonlinear dynamical systems with applications in the physical, natural, and social sciences. Material selected from continuous and discrete systems, local and global
techniques, stability theory, oscillators, bifurcation theory, multiple time scales, and chaos.
Prerequisite: Mathematics $2000\{201\}, 2020\{200\}, 2208\{224\}$, and $2603\{263\}$.
3209 a. Advanced Topics in Numerical Methods. Fall 2014. Adam Levy.
A study of some of the partial differential equations that model a variety of systems in the natural and social sciences. Classical methods for solving partial differential equations are covered, as well as modern, numerical techniques for approximating solutions. Applications to the analysis of a broad set of topics, including air quality, traffic flow, and imaging. Computer software is used as an important tool. Not open to students who have credit for Mathematics 244.

Prerequisite: Mathematics $2000\{201\}, 2208\{224\}$, and $2209\{244\}$.
3404 \{307\} a. Advanced Topics in Geometry. Every other fall. Fall 2013. William Barker.
A survey of affine, projective, and non-Euclidean geometries in two dimensions, unified by the transformational viewpoint of Klein's Erlanger Programm. Special focus will be placed on conic sections, Cayley-Klein geometries, and projective embeddings. Additional topics as time permits: complex numbers in plane geometry, quaternions in three-dimensional geometry, and the geometry of four-dimensional space-time in special relativity. Mathematics $2404\{247\}$ is helpful but not required.
Prerequisite: Mathematics $2000\{201\}$ and $2020\{200\}$, or permission of the instructor.
$3602\{302\}$ a. Advanced Topics in Algebra. Every other spring. Spring 2014. The Department.

Introduction to rings and fields. Vector spaces over arbitrary fields. Additional topics may include Galois theory, algebraic number theory, finite fields, and symmetric functions.
Prerequisite: Mathematics $2602\{262\}$ or permission of the instructor.
3603 \{303\} a. Advanced Topics in Analysis. Every other spring. Spring 2015. Thomas Pietraho.

One or more selected topics from advanced analysis. Possible topics include Lebesque measure and integration theory, Fourier analysis, Hilbert and Banach space theory, and stochastic calculus with applications to mathematical finance.
Prerequisite: Mathematics $2000\{201\}$ and $2603\{263\}$, or permission of the instructor.
3606 \{305\} a. Advanced Topics in Probability and Statistics. Every other fall. Fall 2013. John O'Brien.

One or more specialized topics in probability and statistics. Possible topics include regression analysis, nonparametric statistics, logistic regression, and other linear and nonlinear approaches to modeling data. Emphasis is on the mathematical derivation of the statistical procedures and on the application of the statistical theory to real-life problems.
Prerequisite: Mathematics $2000\{201\}$ and $2606\{265\}$, or permission of the instructor.
4000-4003 \{401-404\} a. Advanced Independent Study in Mathematics. The Department.
4029 \{405\} a. Advanced Collaborative Study in Mathematics. The Department.
4050-4051 a. Honors Project in Mathematics. The Department.

Music<br>Vineet Shende, Department Chair<br>Linda Marquis, Senior Department Coordinator<br>Professors: Robert K. Greenlee**, Mary Hunter, Cristle Collins Judd<br>Associate Professor: Vineet Shende<br>Assistant Professors: Michael Birenbaum Quinterot, Tracy McMullen<br>Senior Lecturer: Anthony F. Antolini<br>Lecturers: Frank Mauceri, John Morneau, Christopher Watkinson<br>Artist in Residence: George Lopez<br>Visiting Faculty: Michael Wingfield<br>Fellow: Susan M. Taffe Reed

## Requirements for the Major in Music

The music major normally consists of ten academic courses and two performance credits. Most majors follow one of the tracks indicated in the "Sample Majors" listed below, but students are also invited to design a major to suit their own needs. No more than two introductory courses (numbered 1100-1999 \{100-199\}) in addition to Music 1101 \{131\}, $1401\{101\}$, and 2402 or $2403\{151$ or 202$\}$ may be counted toward the major, and two advanced courses (numbered 3000-3969 \{300-399\}) in addition to Music $4040\{451\}$ are normally required of all majors. Honors work normally adds one extra course to the standard ten, and its second semester counts as the senior independent study. Only one academic course for which the grade of CR (Credit) is earned may count toward the major.

The process for declaring the major is as follows: (1) The student consults with a member of the music faculty as early in the individual's college career as possible. (2) Before declaring a major, the student proposes a list of courses that fulfill the major, or identifies a sample major to follow by submitting a list or sample major announcement to the music department chair or to another member of the department. (3) Upon departmental approval of the list of courses or the particular track, the major declaration is signed by the department chair. Subsequent alterations to this list of courses are possible only in consultation with the chair of the department or another member of the music faculty.

## Sample Sequences of Courses for the Music Major

## General Music Major

Music 1101 or $2101\{131$ or 211$\}, 1401\{101\}, 2401\{203\}, 2402$ or $2403\{151$ or 202$\}$, and $4040\{451\}$.

Four electives, including two intermediate courses (numbered 2000-2969 \{200-289\}) and one advanced course (numbered 3000-3999 \{300-399\}). One consecutive year of lessons on the same instrument; one consecutive year in the same ensemble. Honors in music adds one advanced independent study to this list.

## Music and Culture

Music 1101 \{131\}; $1401\{101\}$ or 2402 or $2403\{151$ or 202$\}, 2101\{211\}$, a total of five electives: two or three from the music department (including at least one at the intermediate
level (numbered 2000-2969 \{200-289\}); and two or three relevant and sequential courses from another department, including at least one at the intermediate level (numbered 20002969 \{200-289\}); an intermediate independent study (numbered 2970-2973 \{291-294\}) combining departmental and extra-departmental perspectives; one music course numbered 3100-3199 \{355-358\}, and Music $4040\{451\}$; and one full credit of a non-Western ensemble.

## Composition and Theory

Music $1401\{101\}, 2401\{203\}, 2402$ or $2403\{151$ or 202$\}, 2501\{243\}, 2551$ or $2970\{218$ or 291$\}$, one course numbered $2300-2399\{250-259\}, 3401\{301\}, 3501\{361\}, 4040\{451\}$, and one elective, plus the lessons and ensemble required for the general major, above.

## European and American Music

Music $1101\{131\}, 1401\{101\}, 2401\{203\}, 2402$ or $2403\{151\}$, one course numbered 2300-2399 \{250-259\}, $3401\{301\}$ one course numbered $3300-3399\{351-354\}$, two electives (including at least one at the intermediate level—numbered 2000-2969 \{200-289\}), $4040\{451\}$; plus the lessons and ensemble required for the general major, above.

## Requirements for the Minor in Music

The minor in music consists of six credits (five academic courses and one consecutive year of lessons for credit or one year of participation in a single ensemble). The five academic courses include $1401\{101\}$ and any four others including at least two intermediate courses (numbered 2000-2969 \{200-289\}). Only one academic course for which the grade of CR (Credit) is earned may count toward the minor.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1011 c. Holy Songs in a Strange Land. Spring 2014. Judith Casselberry. (Same as Africana Studies 1019.)

## Introductory, Intermediate, and Advanced Courses

1051 \{61\} c - VPA. Fundamentals of Music. Every semester. Fall 2013. Robert Greenlee. Spring 2014. Anthony Antolini.

For the entry-level student. Explores the fundamental elements of music-form, harmony, melody, pitch, rhythm, texture, timbre-and teaches basic skills in reading and writing Western music notation for the purposes of reading, analyzing, and creating musical works.

Music courses numbered $1100\{120\}$ through $1399\{149\}$ cover specific aspects of music history and literature, designed for students with little or no background in music. Course titles and contents may change every semester.

1101 \{131\} c. Sound, Self, and Society: Music and Everyday Life. Every fall. Fall 2013. Tracy McMullen.

Explores the role of music and sound as social practice, political catalyst, market commodity, site of nostalgia, environment regulator, identity tool, and technology of the self. Enables students to communicate about sound and music. Addresses music in relation to mood manipulation; signification and "noise"; taste and identity; race, class, gender, and sexuality codes; repetition and form; "urban tribes" and subcultures; the cult of the expert; economics
and politics; power; authenticity; technology; and multinationalism. Musical genres will be primarily within American popular music. Case studies may include gym, study, road trip, and party playlists; karaoke; tribute bands; music in film; music revivals; "cock rock"; the gendered nature of instruments; suburban punk; Muzak; advertising jingles; and Starbucks.
1241 \{125\} c - IP, VPA. Music of the Middle East. Spring 2014. Mary Hunter.
A survey of music in both Arab and non-Arab countries of the Middle East and North Africa. Students learn the fundamental melodic and rhythmic features of music of this region and then address a variety of topics like music and Islam, music and dance, and the music of particular regions or histories. Includes live demonstrations by professional musicians.
$1260\{141\}$ c - ESD, VPA. American Indian Musical Traditions in Eastern North America. Fall 2013. Susan M. Taffe Reed.

An introductory course exposing students to the diversity of American Indian musical traditions in Eastern North America, and demonstrating the importance of music in the lives of Native people, particularly those in Maine and the Northeastern United States. Through assigned readings and listenings, class discussion, events, quizzes, writing a final paper, and delivering a presentation, students engage in critical analysis of issues that impact Native music, such as the complexity of categorizing music, stereotypes, and music revitalization.
[1269 \{137\} c - ESD, VPA. CuBop, Up-Rock, Boogaloo, and Banda: Latinos Making Music in the United States. (Same as Latin American Studies 1337 \{137\}.)]
1281 \{121\} c - VPA. History of Jazz I. Spring 2014. Tracy McMullen.
A survey of jazz's development from its African American roots in the late nineteenth century through the Swing Era of the 1930s and 1940s, and following the great Swing artists-e.g., Louis Armstrong, Duke Ellington, Billie Holiday, and Benny Goodman-through their later careers. Emphasis is on musical elements, but includes much attention to cultural and historical context through readings and videos. (Same as Africana Studies 1581 \{121\}.)
[1292 \{140\} c - ESD, VPA. History of Hip-Hop. (Same as Africana Studies $1592\{159\}$ and Gender and Women's Studies 1592 \{140\}.)]

1301 \{102\} c - VPA. Introduction to Classical Music. Fall 2013. Mary Hunter.
Introduction to some major works and central issues in the canon of Western music, from the middle ages up to the present day. Includes some concert attendance and in-class demonstrations.
[1302 \{103\} c - VPA. Introduction to Opera.]
1401 \{101\} c - VPA. Introduction to Music Theory. Every year. Fall 2013. Cristle Collins Judd.

Designed for students with some beginning experience in music theory and an ability to read music. Covers scales, keys, modes, intervals, and basic tonal harmony.

Prerequisite: Music 1051 \{61\}, placement into Music 1401 \{101\}, or permission of the instructor.

1451 \{105\} c - VPA. Introduction to Audio Recording Techniques. Every year. Spring 2014. Christopher Watkinson.

Explores the history of audio recording technology as it pertains to music, aesthetic function of recording technique, modern applications of multitrack recording, and digital editing
of sound created and captured in the acoustic arena. Topics include the physics of sound, microphone design and function, audio mixing console topology, dynamic and modulation audio processors, studio design and construction, principles of analog to digital (ADA) conversion, and artistic choice as an engineer. Students will create their own mix of music recorded during class time.
[1501 \{164\} c - VPA. A cappella.]
2101 \{211\} c - VPA. Introduction to Ethnomusicology. Spring 2015. Michael Birenbaum Quintero.

An introduction to the principal theories and methods of ethnomusicology. Focuses on the foundational texts defining the cultural study of the world's musics, drawing upon concepts and tools from both anthropology and musicology. Addresses issues regarding musical fieldwork, recording, and cultural analysis. Students engage in ethnomusicological field projects to put into practice what they study in the classroom.

Prerequisite: One course in music, or permission of the instructor.
2291 \{201\} c - ESD, VPA. Black Women, Politics, Music, and the Divine. Fall 2014. Judith Casselberry.

Seminar. Examines the convergence of politics and spirituality in the musical work of contemporary Black women singer-songwriters in the United States. Analyzes material that interrogates and articulates the intersections of gender, race, class, and sexuality, generated across a range of religious and spiritual terrains with African diasporic/Black Atlantic spiritual moorings, including Christianity, Islam, and Yoruba. Focuses on material that reveals a womanist (Black feminist) perspective by considering the ways resistant identities shape and are shaped by artistic production. Employs an interdisciplinary approach by incorporating ethnomusicology, anthropology, literature, history, and performance and social theory. Explores the work of Shirley Caesar, the Clark Sisters, Me'shell Ndegeocello, Abby Lincoln, Sweet Honey in the Rock, and Dianne Reeves, among others. (Same as Africana Studies 2201 \{201\}, Gender and Women’s Studies 2207 \{207\}, and Religion 2201 \{201\}.)

2292 \{227\} c - ESD, VPA. Protest Music. Spring 2015. Judith Casselberry.
Focuses on the ways black people have experienced twentieth-century events. Examines social, economic, and political catalysts for processes of protest music production across genres including gospel, blues, folk, soul, funk, rock, reggae, and rap. Analysis of musical and extra-musical elements' style, form, production, lyrics, intent, reception, commodification, mass-media, and the Internet. Explores ways in which people experience, identify, and propose solutions to poverty, segregation, oppressive working conditions, incarceration, sexual exploitation, violence, and war. (Same as Africana Studies 2228 \{228\} and Anthropology 2227 \{227\}.)

2293 \{251\} c. Rebel Yell: Punk Music Inside and Outside the Mainstream. Fall 2013. Tracy McMullen.

Explores the significance of punk music from the 1970s to today. Addresses punk music in relation to transnational identity; the individual in late modernity; music vs. noise; sound and meaning; "selling out"; youth culture; subculture; "genre trouble"; music and fashion; rebellion and insurrection; the abject; constructions of the body and disease; and race, class, gender, and sexuality codes. Enables students to communicate about sound and music. Bands/artists discussed may include The Bags, The Germs, Nervous Gender, The Sex Pistols, The Bad Brains, Nirvana, The Runaways, Patti Smith, Television, X-Ray Spex, and The Clash.
$2301\{255\}$ c - VPA. The Western Canon. Every other year. Fall 2014. Mary Hunter.
The Western canon-the repertory of works and composers at the core of classical musicmay seem pretty immutable. But in fact works and composers continually fall in and out of it, or move up and down in its hierarchy. At the same time, it has been extraordinarily difficult for the canon to include works by women, people of color, and non-Western composers. Examines the processes of, and pressures on, canon formation from about 1780 until the present and a number of pillars of classical music, from Handel's Messiab and Haydn's Creation to the symphonies of Shostakovich and the works of Nadia Boulanger's students.

Prerequisite: Music 1051 \{61\} or 1401 \{101\}, or permission of the instructor.
2401 \{203\} c - VPA. Tonal Analysis. Spring 2014. Mary Hunter.
Through a survey of music from Bach to Chopin, the student learns to recognize the basic processes and forms of tonal music, to read a score fluently, and to identify chords and modulations.

Prerequisite: Music 2402 or $2403\{151$ or 202$\}$, or $1401\{101\}$ with permission of the instructor.
[2402 \{202\} c - VPA. Write Your Own Classic Show Tune.]
2403 \{202\} c - VPA. Songwriting and Song Analysis. Every fall. Fall 2013. Vineet Shende.
An intensive project-oriented course in which students will learn skills such as melodic and rhythmic writing, arranging, studio production, text-setting, and basic chromatic harmony, and how those elements combine to affect listeners on an emotional level. Repertoire studied will largely be chosen by students, but will also include songs by the Beatles, various Motown artists, Joni Mitchell, Prince, and Radiohead. Small-group and individual lab sessions scheduled separately. Not open to students who have credit for Music 151.

Prerequisite: Music 1401 \{101\}, placement in Music 2403, or permission of the instructor.
2501 \{243\} c - VPA. Introduction to Composition. Every spring. Spring 2014. Vineet Shende.

An introduction to the art of combining the elements of melody, harmony, rhythm, form, and orchestration to create cohesive and engaging music. Students learn techniques for generating and developing musical ideas through exercises and four main compositional assignments: a work for solo instrument, a theme and variations for solo instrument and piano, a song for voice and piano, and a multi-movement work for three to five instruments. Students also learn ways to discuss and critique their own and one another's work. Ends with a concert of student compositions.

Prerequisite: Music $1401\{101\}$ or permission of the instructor.
2551 \{218\} c - VPA. Introduction to Electronic Music. Fall 2013. Frank Mauceri.
Examination of the history and techniques of electronic and computer music. Topics include compositional aesthetics, recording technology, digital and analog synthesis, sampling, MIDI (Musical Instrument Digital Interface), and computer-assisted composition. Ends with a concert of student compositions.
Prerequisite: Music 1401 \{101\} or 2402 or $2403\{151$ or 202$\}$.

2601 \{258\} c - VPA. Classical Music and Performance. Spring 2015. Mary Hunter.
Performing classical music is different from performing many other sorts of music partly because it requires detailed attention to the musical score, and partly because it inevitably raises questions of history. Considers how score-analysis contributes to performance and investigates a wider variety of historical performance practices and attitudes. Projects include student performances with commentary and comparisons of recorded performances. Includes concert attendance and visits by professional performers.

Prerequisite: One of the following: Music $1051\{61\}$, or $1401\{101\}, 2741\{277\}$, or 2801 $\{285\}$, or permission of the instructor.
[2602 \{221\} c. Improvisation.]
2970-2973 \{291-294\} c. Intermediate Independent Study in Music. The Department.
2999 \{299\} c. Intermediate Collaborative Study in Music. The Department.
3102 \{358\} c - ESD, VPA. Music, Memory, and Identity. Every other year. Spring 2015. Tracy McMullen.

Explores how music relates to nostalgia, identity creation, repetition, memory, history, embodiment, and "liveness" in the postmodern era. Traces the ways race, gender, sexuality, and class are performed through music. Music examined ranges from classical and jazz to "world music" and pop. Artists/bands examined may include Thelonious Monk, Duke Ellington, Louis Armstrong, Genesis, Led Zeppelin, Beethoven, Palestrina, and their various tributes and revivals. Authors may include Baudrillard, Boym, Butler, DeNora, Freud, Gates, Goehr, hooks, Huyssen, Jameson, Sterne, and Taruskin. Primarily intended for juniors and seniors with experience in critical and cultural studies. Sophomores admitted with consent of instructor during the add/drop period. (Same as Gender and Women's Studies 3202 \{358\}.)

3103 c. Gender, Sexuality, and Popular Music. Spring 2014. Tracy McMullen.
Employs gender as a theoretical tool to investigate the production, consumption, and representation of popular music in the United States and around the world. Examines how gender and racial codes have been used historically, for example to describe music as "authentic" (rap, rock) or "commercial" (pop, new wave), and at how these codes may have traveled, changed, or re-appeared in new guises over the decades. Considers how gender and sexuality are inscribed at every level of popular music as well as how music-makers and consumers have manipulated these representations to transgress normative codes and open up new spaces in popular culture for a range of sexual and gender expressions. Juniors and seniors only; sophomores admitted with consent of the instructor during the add/drop period. (Same as Gender and Women's Studies 3103.)

3260 c. American Indian Powwow Culture. Spring 2014. Susan M. Taffe Reed.
Advanced seminar exploring the history and vibrant contemporary practice of American Indian powwow music and dance. Students study how Native people simultaneously maintain and reshape their musical traditions at powwows through reading current scholarly literature, participating in seminar discussion, and conducting an original research project. The course focuses on how ethnomusicological methods of inquiry shed light on the differences in song structure and dance style, as well as the differences between competition (contest) and traditional (non-contest) powwows, and how powwows influence contemporary American Indian identity.

Prerequisite: Any course in music or anthropology.

3356 \{356\} c. Copland and Shostakovich. Fall 2013. Mary Hunter.
Aaron Copland and Dmitri Shostakovich were near contemporaries; they both stood slightly to the side of modernist music as it grew out of the Second Viennese School, and music by both of them is taken to have national and political significance. Copland is an icon of the "American" values of freedom and openness, and Shostakovich is known chiefly for his complex relation to oppressive Soviet regimes. Examines the biographies of the two men, analyzes some of their most important works, and discusses their place in Modernist aesthetics.

Prerequisite: Music $1401\{101\}$ or placement in Music 2402 or 2403, and another course in music, or permission of the instructor.
3501 \{361\} c. Topics in Music Theory: Orchestration. Every other year. Fall 2014. Vineet Shende.

An in-depth examination of factors to consider when writing for modern orchestral instruments. Students become familiar with all such instruments and arrange and transcribe works for ensembles such as string quartet, woodwind quartet, brass quintet, percussion ensemble, and full orchestra. Students also study scores by composers such as Brahms, Mahler, Ravel, Schoenberg, Stravinsky, and Takemitsu in order to further their knowledge of the techniques of instrumentation.
Prerequisite: Music 2401 \{203\} or 2501 \{243\}, or permission of the instructor.
4000-4003 \{401-404\} c. Advanced Independent Study in Music. The Department.
$4029\{405\}$ c. Advanced Collaborative Study in Music. The Department.
$4040\{451\}$ c. Senior Project in Music. Every spring. The Department.
All senior majors must take this course, which involves either a single semester of independent work or the second semester of an honors thesis. In addition to weekly individual meetings with a faculty advisor, students will meet as a group with the entire faculty several times during the semester. Must be taken in the spring of the senior year. Open only to senior music majors.

4050-4051 c. Honors Project in Music. The Department.

## Performange Studies

Up to six credits of individual performance and ensemble courses together may be taken for graduation credit. Music courses numbered 3805-3807\{385-387\} count for academic credit and are thus not included in this limitation. Students may participate on a non-credit basis in lessons, some large ensembles, chamber ensembles, and jazz ensembles upon instructor or departmental approval only.
2805-2809 \{285-289\} c. Individual Performance Studies. Every semester.
Prerequisite: Permission of the music department.
The following provisions govern applied music lessons for credit:

1. Individual performance courses are intended for the continued study of instruments with which the student is already familiar. Students must take at least two consecutive semesters of study on the same instrument to receive one-half credit per semester and to receive the reduced rate. The first semester of study on the first instrument will be designated Music 2805 \{285\}.

The second and all subsequent semesters of credit lessons on the same instrument will be designated Music 2806 \{286\}. The first semester of study on a different instrument will be designated Music 2807 \{287\}. The second and all subsequent semesters of study on that second instrument will be designated Music 2808 \{288\}. The number Music $\mathbf{2 8 0 9}\{289\}$ is reserved for all semesters of study on a third instrument.
2. One-half credit is granted for each semester of study. Students are graded with regular letter grades. To receive credit, students must register for lessons at the beginning of each semester of study in the Office of the Registrar and the Department of Music. Note: Add/ drop dates for lessons are earlier than add/drop dates for other courses. The deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes.
3. Admission is by audition only. Only students who are intermediate or beyond in the development of their skills are admitted.
4. Beginning with the second semester of lessons, students must attend and perform in an end-of-semester public performance. Repertory classes, Lunchbreak Concerts, and other designated music department venues all count as public performances. Such performances must be registered with the department coordinator to count for credit.
5. To receive credit for Individual Performance Studies, the student must complete an academic course in music (which may include Music $3805\{385\}$ ) within the first year and a half of study, or by graduation, whichever comes first.
6. Students taking lessons for credit pay a fee of $\$ 520$ for twelve one-hour lessons per semester. Junior and senior music majors and minors may take two half-credits free of charge.
7. Student Recitals. In most circumstances, a student is required to take Music 3805-3807 \{385-387\} (see below) in order to perform a solo recital. In some cases, however, a student may be allowed to perform a recital without taking Music 3805-3807 \{385-387\}, subject to permission of the instructor, availability of suitable times, and contingent upon a successful audition in the music department. The performance date and accompanist should be established the semester before the recital is to take place.

3805-3807 \{385-387\} c - VPA. Advanced Individual Performance Studies. Every semester.
Prerequisite: Music $2806\{286\}$ and permission of the music department. The performance date and accompanist should be established the semester before the recital is to take place.

1. This option for private study is open only to students already advanced on their instruments. Students may take one or more semesters of this option. Music 3806 \{386\} may be repeated for credit. The first semester of study will be designated Music 3805 \{385\}. The second and all subsequent semesters of private lessons on the same instrument will be designated Music 3806 \{386\}. The number $\mathbf{3 8 0 7}\{\mathbf{3 8 7}\}$ is reserved for all semesters of study on a second instrument.
2. One credit is granted for each semester of study. Students are graded with regular letter grades. To receive credit, students must register for lessons at the beginning of each semester of study in the Office of the Registrar and the Department of Music. Note: Add/drop dates for lessons are earlier than add/drop dates for other courses. The deadline to add lessons is one week from the start of classes, and the deadline to drop lessons is two weeks from the start of classes.
3. Admission is by departmental audition only. Subsequent semesters of advanced lessons on the same instrument may require further auditions.
4. To receive credit for lessons, the student must perform a thirty- to forty-five-minute recital at the end of the semester. The student is expected to write program notes for this recital and other written work acceptable to the faculty advisor.
5. To receive credit, the student must have an advisor from the music department faculty, and be able to demonstrate to that faculty member that he or she understands the structure and/ or context of the music, and will meet all deadlines. The letter grade will be determined jointly by the applied teacher and the faculty member after the recital.
6. Fees as with half-credit lessons.

Instructors for 2013-2014 include Julia Adams (viola), Christina Astrachan (voice), Naydene Bowder (piano and harpsichord), Christina Chute (cello), Ray Cornils (organ), Matt Fogg (jazz piano), Allen Graffam (trumpet), Steve Grover (percussion), Anita Jerosch (low brass), Timothy Johnson (voice), John Johnstone (classical guitar), David Joseph (bassoon), George Lopez (piano), Greg Loughman (electric bass), Kathleen McNerney (oboe), Kirsten Monke (viola), Joyce Moulton (piano), Taylor O'Donnell (pop/jazz voice), Gilbert Peltola (saxophone and clarinet), Karen Pierce (voice), Dean Stein (violin), Krysia Tripp (flute), Scott Vaillancourt (tuba), and Gary Wittner (jazz guitar).

Music Ensembles. Every semester.
The following provisions govern ensemble:

1. Most ensembles are auditioned. (No auditions required for Music $2769\{269\}, 2775$ $\{275\}$, and 2781 \{281\}.) May be repeated for credit; returning students need not normally re-audition.
2. One-half credit may be granted for each semester of study. To receive credit, the student must register for the course in the Office of the Registrar at the beginning of each semester.
3. Grading is Credit/D/Fail. Members of ensembles must attend rehearsals regularly and participate in all dress rehearsals and performances, or they will receive a grade of D or F for the course.
4. Ensembles meet regularly for a minimum of three hours weekly, inclusive of time without the ensemble director; ensemble directors establish appropriate attendance policies.

2769 \{269\} c. Middle Eastern Ensemble. The Department.
Meets once a week on Monday evenings, and performs pieces from the Arabic, Turkish, Armenian, and Greek traditions. Coached by oud player Amos Libby and percussionist Eric La Perna, the group does one performance per semester and often collaborates with the Bowdoin Belly Dance Club. No experience is required to join; students have the option of singing, learning new percussion instruments, or playing an instrument with which they are already familiar.
2771 \{271\} c. Chamber Choir. Fall 2013. Robert Greenlee. Spring 2014. The Department.
An auditioned group of about thirty-five student singers. Repertory ranges widely, from Renaissance music to American contemporary music and folk music of the world. The choir performs at festivals and society meetings in the United States (American Choral Directors Association and Society of Composers), and it tours abroad during some spring breaks. Recent trips have taken the ensemble to Germany, Ireland, England, Chile, Hungary, and Slovakia. Monday through Thursday late afternoons must be reserved, but the choir usually rehearses only three of those days.

2773 \{273\} c. Chorus. Anthony Antolini.
An ensemble of students, faculty, staff, and community singers. Entrance by audition. Group collaborates fall semester with other singers to form Rachmaninoff Choir. Participation in Rachmaninoff Choir is voluntary. Fall semester repertoire: "Black Nativity," in Gospel style. Spring semester: music of Mendelssohn and Stravinsky. Rehearsals are Thursday and Sunday evenings.

2775 \{275\} c. Concert Band. John Morneau.
An ensemble open to all students with wind and percussion experience that performs several major concerts each year on campus, along with performances at campus events and ceremonies. Repertoire consists of a variety of literature, from the finest of the wind band repertoire to light classics, show tunes, and marches. Students have been featured as soloists and conductors, and student compositions have been premiered by the ensemble. Rehearsals are Tuesday and Thursday evenings.

## 2777 \{277\} c. Ensemble Performance. George Lopez.

Ensemble Performance is for instrumentalists who play orchestral instruments or piano and would like to play in chamber ensembles and the chamber orchestra. Participants (except pianists) must reserve Sunday evenings from 7:00 p.m. until 9:00 p.m., and chamber ensemble coachings will be scheduled on an individual basis.

All students must audition for ensemble performance. One-half credit per semester can be earned if one participates in both the orchestra and a chamber ensemble; with permission of the director, some students may be allowed to play in only one or the other ensemble on a non-credit basis.

2781 \{281\} c. Afro-Latin Music Ensemble. Michael Wingfield.
Performs the musical forms of black populations in Latin America and the Caribbean, with particular emphasis on the marimba and drumming traditions of Afro-Colombians. May also include Afro-Cuban, Afro-Peruvian, Afro-Puerto Rican, Afro-Dominican, and other musics. Students learn and perform multiple instruments, drumming, singing, and dance, culminating in a concert every semester. Occasional texts and audiovisual materials supplement musical learning by offering cultural and aesthetic contextualization.

2783 \{283\} c. Jazz Ensembles. Frank Mauceri.
Groups of four to six students, formed by audition, and performing both modern and classic standards, plus some original compositions by students and faculty. They perform one concert a semester on campus and appear occasionally in other venues. Rehearsals are arranged to suit the players' and coach's schedules.

## Neuroscience

Richmond R. Thompson, Program Director
Julie J. Santorella, Program Coordinator
Professors: Patsy S. Dickinson (Biology), Richmond R. Thompson (Psychology)
Associate Professor: Hadley Wilson Horch (Biology)
Assistant Professor: Erica M. Nyhus (Psychology)
Laboratory Instructor: Nancy J. Curtis
Contributing Faculty: Mary Lou Zeeman $\dagger$

## Requirements for the Major in Neuroscience

The major consists of thirteen courses, including ten core courses and three electives from the lists to follow. Advanced placement credits may not be used to fulfill any of the course requirements for the major except introductory chemistry. Independent study in neuroscience may be used to fulfill one of the three elective credits. If students place out of Psychology $1101\{101\}$ or Biology $1109\{109\}$, thirteen courses related to neuroscience must still be completed.

Note: The information provided below is a listing of required and elective courses for the major in neuroscience. These courses are offered by other departments and programs within the College. Please refer to the departments of Biology, Chemistry, Computer Science, Mathematics, Physics, and Psychology for further information, including course descriptions, instructors, and semesters when these courses will next be offered.

## I. Core Gourses

## Introductory Level and General Courses:

Biology 1109 \{109\} a - MCSR, INS. Scientific Reasoning in Biology or Biology 1102 \{102\} a - MCSR, INS. Biological Principles II

Chemistry 1102 \{102 $\}$ a - MCSR, INS. Introductory Chemistry II or
Chemistry 1109 \{109\} a - MCSR, INS. General Chemistry
Chemistry $2250\{225\}$ a. Organic Chemistry I
Psychology 1101 \{101\} b. Introduction to Psychology
Psychology $2520\{252\}$ a - MCSR. Data Analysis or
Mathematics $1300\{165\}$ a - MCSR. Biostatistics

## Introductory Neuroscience Course:

Biology 2135 \{213\} a - MCSR, INS. Neurobiology or Psychology $2050\{218\}$ a. Physiological Psychology

## Mid-level Neuroscience Courses:

Three of the following:
Biology 2553 \{253\} a. Neurophysiology
Biology 2566 \{266\} a. Molecular Neurobiology

Psychology 2750 \{275\} a - INS. Laboratory in Behavioral Neuroscience: Social Behavior
Psychology 2775 \{280\} a - MCSR, INS. Laboratory in Cognitive Neuroscience
Advanced Neuroscience Course:
One of the following:
Biology 3325 \{325\} a. Topics in Neuroscience
Biology 3329 \{329\} a. Neuronal Regeneration
Psychology $3050\{315\}$ a. Hormones and Behavior
Psychology 3051 \{316\} a. Comparative Neuroanatomy

## II. Electives

Three electives may be chosen from the courses listed above (but not already taken) or below:
Biology 1101 \{101\} a - MCSR, INS. Biological Principles I
Biology 2112 \{212\} a - MCSR, INS. Genetics and Molecular Biology
Biology 2124 \{224\} a - MCSR, INS. Biochemistry and Cell Biology
Biology 2175 \{217\} a - MCSR, INS. Developmental Biology
Biology 2214 \{214\} a - MCSR, INS. Comparative Physiology
Biology 2423 \{223\} a. Biochemistry of Cellular Processes
Biology 3333 \{333\} a. Advanced Cell and Molecular Biology
Chemistry $2320\{232\}$ a - MCSR. Biochemistry
Computer Science $3400\{355\}$ a. Cognitive Architecture
Mathematics $2108\{204\}$ a - MCSR. Biomathematics (same as Biology 1174 \{174\})
Physics 1140 \{104\} a - MCSR, INS. Introductory Physics II
Psychology $2010\{210\}$ b. Infant and Child Development
Psychology 2040 \{216\} b. Cognitive Psychology
Psychology $2510\{251\}$ b. Research Design in Psychology
Psychology 2720 \{260\} b. Abnormal Psychology
Psychology 2740 \{270\} b. Laboratory in Cognition
Neuroscience 2970-2973 \{291-294\} a. Intermediate Independent Study in Neuroscience. The Program.
Neuroscience 2999 \{299\} a. Intermediate Collaborative Study in Neuroscience. The Program.

Neuroscience 4000-4003 \{401-404\} a. Advanced Independent Study in Neuroscience. The Program.

Neuroscience 4029 \{405\} a. Advanced Collaborative Study in Neuroscience. The Program.

Neuroscience 4050-4051 a. Honors Project in Neuroscience. The Program.

# Philosophy 

Scott R. Sehon, Department Chair
Jean M. Harrison, Department Coordinator
Professors: Denis J. Corish, Scott R. Sehon, Matthew Stuart
Associate Professors: Sarah O’Brien Conly $\dagger$, Lawrence H. Simon (Environmental Studies)
Fellow: Nathan J. Rothschild

## Requirements for the Major in Philosophy

The major consists of nine courses, which must include Philosophy $2111\{111\}, 2112\{112\}$, and $2233\{223\}$. Of the remaining six courses, there must be at least one course with a primary focus on epistemology and metaphysics (Philosophy 1040-1049 \{14\}, 1400-1499 $\{142,145\}, 2400-2499\{210,224-229\}, 3400-3499\{331,332,334\}$; and there must be at least one course with a primary focus on value theory (Philosophy 1030-1039 \{16, 18\}, 1300-1399 \{120\}, 2300-2399 \{220-222, 241, 258\}, 3300-3399 \{332, 334, 346\}. At least two classes must be from the advanced group (numbered 3000-3999 \{300-399\}). Students must earn grades of C - or better in courses to be counted toward the major.

## Requirements for the Minor in Philosophy

The minor consists of five courses, which must include Philosophy 2111 and $2112\{111$ and $112\}$, one other course from the intermediate group (numbered 2000-2969 \{200-289\}), and one course from the advanced group (numbered 3000-3969 \{300-399\}). The fifth course may be from any level. Students must earn grades of C- or better in courses to be counted toward the minor.

## First-Year Seminars

Topics in first-year seminars change from time to time but are restricted in scope and make no pretense to being an introduction to the whole field of philosophy. They are topics in which contemporary debate is lively and as yet unsettled and to which contributions are often being made by more than one field of learning. For a full description of first-year seminars, see pages 157-168.

1025 \{ 25$\}$ c. On the Power and Limit of Persuasion. Fall 2013. Nathan Rothschild.
[1028 \{28\} c. A Philosopher's Dozen.]
[1038 \{18\} c. Love.]
$1040\{14\}$ c. Personal Identity. Fall 2013. Matthew Stuart.

## Introductory Courses

Introductory courses are open to all students regardless of year and count toward the major. They do not presuppose any background in philosophy and are good first courses.

1252 \{152\} c. Death. Fall 2013. Matthew Stuart.
Considers distinctively philosophical questions about death: Do we have immortal souls? Is immortality even desirable? Is death a bad thing? Is suicide morally permissible? Does the inevitability of death rob life of its meaning? Readings from historical and contemporary sources.
$1320\{120\}$ c. Moral Problems. Spring 2014. Lawrence H. Simon.
Our society is riven by deep and troubling moral controversies. Examines some of these controversies in the context of current arguments and leading theoretical positions. Possible topics include abortion, physician-assisted suicide, capital punishment, sexuality, the justifiability of terrorism, and the justice of war.
$1435\{145\}$ c. Truth and Morality: One, Many, or None? Fall 2013. Scott Sehon.
If we disagree about whether or not the earth is flat, or whether Obama was born in Kenya, it seems that we are disagreeing about something to which there is a single true answer; we can't all be right. On the other hand, when we contemplate the complexity of cultural diversity and worldviews in different times and places, it might seem implausible that there is a true moral view that applies to everyone at all times. Investigates whether there is moral truth: whether there are objective moral truths that hold for everyone, whether moral truth is somehow relative to particular cultures, or whether there is no such thing as truth or morality. Readings from mostly contemporary sources.
[1442 \{142\} c. Philosophy of Religion. (Same as Religion $1142\{142\}$.)]

## Intermediate Courses

$2100\{200\}$ c. History, Freedom, and Reason. Spring 2015. Lawrence H. Simon.
What are the causes of historical development? Is history progressive? Do freedom and reason manifest themselves in history? A study of the development of political philosophy and philosophy of history in nineteenth-century German philosophy from Kant through Hegel to Marx.

2111 \{111\} c. Ancient Philosophy. Every fall. Fall 2013. Denis J. Corish.
The sources and prototypes of Western thought. We try to understand and evaluate Greek ideas about value, knowledge, and truth.

2112 \{112\} c. Modern Philosophy. Every spring. Spring 2014. Matthew Stuart.
A survey of seventeenth- and eighteenth-century European philosophy, focusing on discussions of the ultimate nature of reality and our knowledge of it. Topics include the nature of the mind and its relation to the body, the existence of God, and the free will problem. Readings from Descartes, Locke, Hume, Kant, and others.

2223 \{223\} a - MCSR. Logic. Every fall. Fall 2013. Scott Sehon.
The central problem of logic is to determine which arguments are good and which are bad. To this end, we introduce a symbolic language and rigorous, formal methods for seeing whether one statement logically implies another. We apply these tools to a variety of arguments, philosophical and otherwise, and demonstrate certain theorems about the formal system we construct.

2233 \{233\} - MCSR. Intermediate Logic. Spring 2014. Scott Sehon.
Investigates several philosophically important results of modern logic, including Gödel's incompleteness theorems, the Church-Turing Theorem (that there is no decision procedure for quantificational validity), and Tarski's theorem (the indefinability of truth for formal languages). Also includes an introduction to modal logic, the logic of necessity and possibility.
Prerequisite: Philosophy $2223\{223\}$ or permission of the instructor.

Examines issues central for physicians, biological researchers, and society: cloning, genetic engineering, biological patenting, corporate funding for medical research, use of experimental procedures, and others.

2321 \{221\} c. History of Ethics. Fall 2014. Lawrence H. Simon.
How should one live? What is the good? What is my duty? What is the proper method for doing ethics? The fundamental questions of ethics are examined in the classic texts of Aristotle, Hume, Kant, and Mill.

2322 \{222\} c. Political Philosophy. Fall 2013. Lawrence H. Simon.
Examines some of the major issues and concepts in political philosophy, including freedom and coercion, justice, equality, and the nature of liberalism. Readings primarily from contemporary sources.

2341 \{241\} c. Philosophy of Law. Fall 2014. Sarah Conly.
An introduction to legal theory. Central questions include: What is law? What is the relationship of law to morality? What is the nature of judicial reasoning? Particular legal issues include the nature and status of privacy rights (e.g., contraception, abortion, and the right to die); the legitimacy of restrictions on speech and expression (e.g., pornography, hate speech); the nature of equality rights (e.g., race and gender); and the right to liberty (e.g., homosexuality).

2358 \{258\} c. Environmental Ethics. Spring 2015. Lawrence H. Simon.
What things in nature have moral standing? What are our obligations to them? How should we resolve conflicts among our obligations? After an introduction to ethical theory, topics include anthropocentrism, the moral status of nonhuman sentient beings and of non-sentient living beings, preservation of endangered species and the wilderness, holism versus individualism, the land ethic, and deep ecology. (Same as Environmental Studies 2448 \{258\}.)
$2410\{210\}$ c. Philosophy of Mind. Spring 2014. Scott Sehon.
We see ourselves as rational agents: we have beliefs, desires, intentions, wishes, hopes, etc. We also have the ability to perform actions, seemingly in light of these beliefs, desires, and intentions. Is our conception of ourselves as rational agents consistent with our scientific conception of human beings as biological organisms? Can there be a science of the mind and, if so, what is its status relative to other sciences? What is the relationship between mind and body? How do our mental states come to be about things in the world? How do we know our own minds, or whether other people even have minds? Readings primarily from contemporary sources.
[2425 \{225\} c. Philosophy of Science.]
[2427 \{227\} c. Metaphysics.]
2429 \{229\} c. Philosophy in the Twentieth Century. Spring 2015. Matthew Stuart.
An examination of some key figures and works in the development of analytic philosophy. Particular attention is given to theory about the nature of physical reality and our perceptual knowledge of it, and to questions about the nature and function of language. Readings from Bertrand Russell, G. E. Moore, W. V. O. Quine, Gilbert Ryle, and others.

2970-2973 \{291-294\} c. Intermediate Independent Study in Philosophy. The Department.
2999 \{299\} c. Intermediate Collaborative Study in Philosophy. The Department.

## Advanced Courses

Although courses numbered in the 3000 s $\{300 \mathrm{~s}\}$ are advanced seminars primarily intended for majors in philosophy, adequately prepared students from other fields are also welcome. Besides stated prerequisites, at least one of the courses from the group numbered in the 2000s \{200s\} will also be found a helpful preparation.
[3137 \{337\} c. Hume.]
[3346 \{346\} c. Philosophy of Gender: Sex and Love. (Same as Gay and Lesbian Studies 3346 \{346\} and Gender and Women's Studies 3346 \{346\}.)]
$3392\{392\}$ c. Advanced Topics in Environmental Philosophy. Spring 2014. Lawrence H. Simon.

Examines philosophical, moral, political, and policy questions regarding various environmental issues. Possible topics include the ethics of climate change policy, our obligations to future generations, benefit-cost analysis vs. the precautionary principle as a decision-making instrument, and the relationship between justice and sustainability. (Same as Environmental Studies 3992 \{392\}.)
[3434 \{334\} c. Free Will.]
4000-4003 \{401-404\} c. Advanced Independent Study in Philosophy. The Department.
$4029\{405\}$ c. Advanced Collaborative Study in Philosophy. The Department.
4050-4051 c. Honors Project in Philosophy. The Department.

# Physics and Astronomy 

Mark O. Battle, Department Chair<br>Dominica Lord-Wood, Department Coordinator

Professors: Thomas Baumgarte, Madeleine E. Msall, Stephen G. Naculich, Dale A. Syphers ** Associate Professor: Mark O. Battle
Senior Lecturer: Karen Topp
Laboratory Instructors: Kenneth Dennison, Gary L. Miers, Elise Weaver

The major program depends to some extent on the student's goals, which should be discussed with the department. Those who intend to do graduate work in physics or an allied field should plan to do an honors project. For those considering a program in engineering, consult pages 36-37. A major with an interest in an interdisciplinary area such as geophysics, biophysics, or oceanography will choose appropriate courses in related departments. Secondary school teaching requires a broad base in science courses, as well as the necessary courses for teacher certification. For a career in industrial management, some courses in economics and government should be included. Courses that will count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail).

## Courses of Instruation

## Requirements for the Major in Physics

A student majoring in physics is expected to complete at least Mathematics $1600\{161\}, 1700$ $\{171\}$, Physics $1130\{103\}, 1140\{104\}, 2130\{223\}, 2140\{224\}, 2150\{229\}$, one advanced methods course (Physics $3000\{300\}$, $3010\{301\}$, or $3020\{302\}$ ), and two additional approved courses higher than $1140\{104\}$ (one of which may be Mathematics $1800\{181\}$ or higher, or Computer Science $1101\{101\}$ ). At least five physics courses must be taken at Bowdoin.

For honors work, a student is expected to complete Mathematics $1800\{181\}$, and Physics $1130\{103\}, 1140\{104\}, 2130\{223\}, 2140\{224\}, 2150\{229\}, 3000\{300\}, 4050\{451\}$, and four additional physics courses, three of which must be at the advanced level (numbered 3000-3999 \{300-399\}).

## Requirements for the Minor in Physics

The minor consists of at least four Bowdoin physics courses numbered $1130\{103\}$ or higher, one of which must be Physics $1140\{104\}$.

## Interdisciplinary Majors

The department participates in an interdisciplinary program in chemical physics. See page 216.
The department does not participate in a formal interdisciplinary program with the Department of Earth and Oceanographic Science. However, the departments of Physics and Earth and Oceanographic Science have identified major/minor pathways for students majoring in physics with an interest in earth and oceanographic science (physics major/earth and oceanographic science minor) and students majoring in earth and oceanographic science with an interest in physics (earth and oceanographic science major/physics minor).

Students pursuing the physics major/earth and oceanographic science minor with interests in the solid earth discipline would be best served by selecting Earth and Oceanographic Science $1105\{101\}, 2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ), and two of the following earth and oceanographic science courses: $2125\{241\}, 2145\{242\}, 2165\{262\}$, 3115 \{315\}.

Those with interests in the surface earth discipline should select Earth and Oceanographic Science 1305 \{104\} (same as Environmental Studies $1104\{104\}$ ), $2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ), and two from $2315\{277\}$ (same as Environmental Studies $2277\{277\}$ ), $2325\{220\}, 2345\{270\}$ (same as Environmental Studies $2270\{270\}$ ), and $2355\{272\}$.

Those with interests in the oceanography discipline should choose Earth and Oceanographic Science $1505\{102\}, 2005\{200\}$ (same as Environmental Studies $2221\{200\}$ ), and two from $2525\{252\}, 2530\{287\}, 2540,2585\{282\}$ (same as Environmental Studies $2282\{282\}$ ), $2635\{267\}$ (same as Environmental Studies 2267 \{267\}), and 3515 \{351\}.

## Prerequisites

Students must earn a grade of C- or above in any prerequisite physics course.

## Introductory, Intermediate, and Advanced Courses

1081 \{81\} a - INS. Physics of the Environment. Every other spring. Spring 2014. Mark Battle.

An introduction to the physics of environmental issues, including past climates, anthropogenic climate change, ozone destruction, and energy production and efficiency. (Same as Environmental Studies 1081 \{81\}.)

1082 \{82\} a - MCSR, INS. Physics of Musical Sound. Fall 2013. Karen Topp.
An introduction to the physics of sound, specifically relating to the production and perception of music. Topics include simple vibrating systems; waves and wave propagation; resonance; understanding intervals, scales, and tuning; sound intensity and measurement; sound spectra; how various musical instruments and the human voice work. Students expected to have some familiarity with basic musical concepts such as scales and intervals. Not open to students who have credit for a Physics course numbered $1100\{100\}$ or higher.

1093 \{93\} a - MCSR. Introduction to Physical Reasoning. Fall 2013. Madeleine Msall.
Climate science. Quantum Physics. Bioengineering. Rocket science. Who can understand it? Anyone with high school mathematics (geometry and algebra) can start. Getting started in physics requires an ability to mathematically describe real world objects and experiences. Prepares students for additional work in physical science and engineering by focused practice in quantitative description, interpretation, and calculation. Includes hands-on measurements, some introductory computer programming, and many questions about the physics all around us. Registration for this course is by placement only. To ensure proper placement, students must have taken the physics placement examination prior to registering for Physics 1093 \{93\}.

Prerequisite: Placement in Physics 1093 \{93\}.
$1130\{103\}$ a - MCSR, INS. Introductory Physics I. Every semester. Fall 2013. Mark Battle and Stephen Naculich. Spring 2014. The Department.

An introduction to the conservation laws, forces, and interactions that govern the dynamics of particles and systems. Shows how a small set of fundamental principles and interactions allow us to model a wide variety of physical situations, using both classical and modern concepts. A prime goal of the course is to have the participants learn to actively connect the concepts with the modeling process. Three hours of laboratory work per week. To ensure proper placement, students are expected to have taken the physics placement examination prior to registering for Physics $1130\{103\}$.

Prerequisite: Previous credit or concurrent registration in Mathematics $1600\{161\}$ or higher, and Physics 1093 \{ 93$\}$; or placement in Physics 1130, or permission of the instructor.
$1140\{104\}$ a - MCSR, INS. Introductory Physics II. Every semester. Fall 2013. Madeline Msall. Spring 2014. Karen Topp.

An introduction to the interactions of matter and radiation. Topics include the classical and quantum physics of electromagnetic radiation and its interaction with matter, quantum properties of atoms, and atomic and nuclear spectra. Three hours of laboratory work per week will include an introduction to the use of electronic instrumentation.

Prerequisite: Physics $1130\{103\}$ or placement in Physics 1140, and previous credit or concurrent registration in Mathematics $1700\{171\}, 1750\{172\}$; or $1800\{181\}$, or permission of the instructor.
$1510\{107\}$ a - INS. Introductory Astronomy. Every spring. The Department.
A quantitative introduction to astronomy with emphasis on stars and the structures they form, from binaries to galaxies. Topics include the night sky, the solar system, stellar structure and evolution, white dwarfs, neutron stars, black holes, and the expansion of the universe. Several nighttime observing sessions required. Does not satisfy pre-med or other science departments' requirements for a second course in physics. Not open to students who have credit for Physics $\{62\}$ or Physics $1560\{162\}$.

Prerequisite: Mathematics $1600\{161\}$ or higher, or permission of the instructor.
2130 \{223\} a - INS. Electric Fields and Circuits. Every fall. Fall 2013. Dale Syphers.
The basic phenomena of the electromagnetic interaction are introduced. The basic relations are then specialized for a more detailed study of linear circuit theory. Laboratory work stresses the fundamentals of electronic instrumentation and measurement with basic circuit components such as resistors, capacitors, inductors, diodes, and transistors. Three hours of laboratory work per week.
Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
2140 \{224\} a - MCSR. Quantum Physics and Relativity. Every spring. Spring 2014. The Department.

An introduction to two cornerstones of twentieth-century physics-quantum mechanics and special relativity. The introduction to wave mechanics includes solutions to the timeindependent Schrödinger equation in one and three dimensions with applications. Topics in relativity include the Galilean and Einsteinian principles of relativity, the "paradoxes" of special relativity, Lorentz transformations, space-time invariants, and the relativistic dynamics of particles. Not open to students who have credit for or are concurrently taking Physics 3140 $\{310\}$, or $3500\{375\}$.

Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
2150 \{229\} a. Statistical Physics. Every spring. Spring 2014. The Department.
Develops a framework capable of predicting the properties of systems with many particles. This framework, combined with simple atomic and molecular models, leads to an understanding of such concepts as entropy, temperature, and chemical potential. Some probability theory is developed as a mathematical tool.

Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
2220 \{235\} a. Engineering Physics. Fall 2013. Dale Syphers.
Examines the physics of materials from an engineering viewpoint, with attention to the concepts of stress, strain, shear, torsion, bending moments, deformation of materials, and other applications of physics to real materials, with an emphasis on their structural properties. Also covers recent advances, such as applying these physics concepts to ultra-small materials in nano-machines. Intended for physics majors and architecture students with an interest in civil or mechanical engineering or applied materials science.

Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
$2230\{240\}$ a. Modern Electronics. Every other spring. Spring 2015. Dale Syphers.
A brief introduction to the physics of semiconductors and semiconductor devices, culminating in an understanding of the structure of integrated circuits. Topics include a description of currently available integrated circuits for analog and digital applications and their use in modern electronic instrumentation. Weekly laboratory exercises with integrated circuits.

Prerequisite: Physics $1130\{103\}$ or $1140\{104\}$, or permission of the instructor.
[2240 \{250\} a - MCSR. Acoustics.]
[2250 \{251\} a. Physics of Solids.]
2260 \{280\} a. Nuclear and Particle Physics. Every other spring. Spring 2015. The Department.
An introduction to the physics of subatomic systems, with a particular emphasis on the standard model of elementary particles and their interactions. Basic concepts in quantum mechanics and special relativity are introduced as needed.

Prerequisite: Physics $2140\{224\}$ or permission of the instructor.
$2510\{262\}$ a. Astrophysics. Every other fall. Fall 2014. The Department.
A quantitative discussion that introduces the principal topics of astrophysics, including stellar structure and evolution, planetary physics, and cosmology.
Prerequisite: Physics $1140\{104\}$ and $1510\{107\}$, or permission of the instructor.
2810 \{257\} a. Atmosphere and Ocean Dynamics. Fall 2013. Mark O. Battle.
A mathematically rigorous analysis of the motions of the atmosphere and oceans on a variety of spatial and temporal scales. Covers fluid dynamics in inertial and rotating reference frames, as well as global and local energy balance, applied to the coupled ocean-atmosphere system. (Same as Earth and Oceanographic Science 2810 \{257\} and Environmental Studies 2253 \{253\}.)
Prerequisite: Physics $1140\{104\}$ or permission of the instructor.
[2900 \{285\}. Topics in Contemporary Physics.]
2970-2973 \{291-294\} a. Intermediate Independent Study in Physics. The Department.
Topics to be arranged by the student and the faculty. If the investigations concern the teaching of physics, this course may satisfy certain of the requirements for the Maine State Teacher's Certificate. Students doing independent study normally have completed a physics course numbered 2000-2969 \{200-289\}.
2999 \{299\} a. Intermediate Collaborative Study in Physics. The Department.
$3000\{300\}$ a. Methods of Theoretical Physics. Every fall. Fall 2013. Thomas Baumgarte.
Mathematics is the language of physics. Similar mathematical techniques occur in different areas of physics. A physical situation may first be expressed in mathematical terms, usually in the form of a differential or integral equation. After the formal mathematical solution is obtained, the physical conditions determine the physically viable result. Examples are drawn from heat flow, gravitational fields, and electrostatic fields.
Prerequisite: Physics $1140\{104\}$ and Mathematics $1800\{181\}$, or permission of the instructor.
$3010\{301\}$ a. Methods of Experimental Physics. Every spring. Spring 2014. The Department.

Intended to provide advanced students with experience in the design, execution, and analysis of laboratory experiments. Projects in optical holography, nuclear physics, cryogenics, and materials physics are developed by the students.
Prerequisite: Physics $2130\{223\}$ or permission of the instructor.
3020 \{302\} a. Methods of Computational Physics. Fall 2013. Thomas Baumgarte.
An introduction to the use of computers to solve problems in physics. Problems are drawn from several different branches of physics, including mechanics, hydrodynamics, electromagnetism, and astrophysics. Numerical methods discussed include the solving of linear algebra and eigenvalue problems, ordinary and partial differential equations, and Monte Carlo techniques. Basic knowledge of a programming language is expected.

Prerequisite: Physics $1140\{104\}$ and Computer Science $1101\{101\}$, or permission of the instructor.
$3120\{370\}$ a. Advanced Mechanics. Every other spring. Spring 2015. The Department.
A thorough review of particle dynamics, followed by the development of Lagrange's and Hamilton's equations and their applications to rigid body motion and the oscillations of coupled systems.
Prerequisite: Physics $3000\{300\}$ or permission of the instructor.
$3130\{320\}$ a. Electromagnetic Theory. Spring 2014. The Department.
First the Maxwell relations are presented as a natural extension of basic experimental laws; then emphasis is given to the radiation and transmission of electromagnetic waves.

Prerequisite: Physics $2130\{223\}$ and $3000\{300\}$, or permission of the instructor.
$3140\{310\}$ a. Quantum Mechanics. Every fall. Fall 2013. Stephen Naculich.
A mathematically rigorous development of quantum mechanics, emphasizing the vector space structure of the theory through the use of Dirac bracket notation. Linear algebra will be developed as needed.

Prerequisite: Physics $2140\{224\}$ and $3000\{300\}$, or permission of the instructor.
3500 \{375\} a. General Relativity. Spring 2014. The Department.
First discusses special relativity, introducing the concept of four-dimensional spacetime. Then develops the mathematical tools to describe spacetime curvature, leading to the formulation of Einstein's equations of general relativity. Finishes by studying some of the most important astrophysical consequences of general relativity, including black holes, neutron stars, and gravitational radiation.

Prerequisite: Physics $2140\{224\}$ and $3000\{300\}$, or permission of the instructor.
$3810\{357\}$ a. The Physics of Climate. Every other spring. Spring 2015. Mark Battle.
A rigorous treatment of the earth's climate, based on physical principles. Topics include climate feedbacks, sensitivity to perturbations, and the connections between climate and radiative transfer, atmospheric composition, and large-scale circulation of the oceans and atmospheres. Anthropogenic climate change also studied. (Same as Earth and Oceanographic Science $3050\{357\}$ and Environmental Studies 3957 \{357\}.)

Prerequisite: One of the following: Physics $2150\{229\}, 2810\{257\}$ or $3000\{300\}$; or permission of the instructor.
4000-4003 \{401-404\} a. Advanced Independent Study in Physics. The Department.
Topics to be arranged by the student and the faculty. Students doing advanced independent study normally have completed a physics course at the advanced level (numbered 3000-3999 \{300-399\}).

4029 \{405\} a. Advanced Collaborative Study in Physics. The Department.
4050-4051 \{451-452\} a. Honors Project in Physics. The Department.
Programs of study are available in semiconductor physics, microfabrication, superconductivity and superfluidity, astrophysics, relativity, ultrasound, and atmospheric physics. Work done in these topics normally serves as the basis for an honors paper.
Prerequisite: Permission of the instructor.

## Psyghology

Paul E. Schaffner, Department Chair<br>Donna M. Trout, Senior Department Coordinator

Professors: Barbara S. Held, Louisa M. Slowiaczek, Richmond R. Thompson (Neuroscience)
Associate Professors: Suzanne B. Lovett, Samuel P. Putnam, Paul E. Schaffner
Assistant Professor: Erika M. Nyhus (Neuroscience)
Visiting Faculty: Julie Quimby
Fellow: Katherine D. O'Doherty

Students in the Department of Psychology may elect a major within the psychology program, or they may elect an interdisciplinary major in neuroscience, sponsored jointly by the departments of Psychology and Biology (see Neuroscience, pages 248-249). The program in psychology examines contemporary perspectives on principles of human behavior, in areas ranging from cognition, language, development, and behavioral neuroscience to interpersonal relations and psychopathology. Its approach emphasizes scientific methods of inquiry and analysis.

## Requirements for the Major in Psychology

The psychology major comprises ten courses. These are selected by students with their advisors and subject to departmental review. The major includes Psychology 1101 \{101\}, which is a prerequisite to further study in psychology, and Psychology 2510 and $2520\{251$ and 252$\}$. These three core courses should be completed before the junior year when feasible. The major also includes laboratory and advanced courses. Students have the option of taking either (a) two laboratory courses numbered 2700-2799 \{260-280\} and two advanced courses numbered 3000-3999 \{300-399\}, or (b) three laboratory courses numbered 2700-2799 $\{260-280\}$ and one advanced course numbered 3000-3999 \{300-399\}. Note that no more than one course from among Psychology $2750\{275\}, 2751\{276\}$, and $2775\{280\}$, may count toward the two-course laboratory option; no more than two of these courses may count toward the three-course laboratory option. Similarly, no more than one course from among

Psychology $3010\{320\}, 3011\{321\}$, and $3013\{323\}$ may count toward the two-advancedcourse option; and no more than one course from among Psychology $3050\{315\}, 3051$ $\{316\}, 3052\{319\}, 3056\{313\}$, and $3059\{322\}$ may count toward the two-advanced-course option. Finally, the major includes three electives chosen from among all psychology courses. Students are encouraged to consider an independent study course on a library, laboratory, or field research project. Independent study courses at any level count as electives, but do not count toward the laboratory requirement or the advanced-course requirement.

Students who are considering a major in psychology are encouraged to enroll in Psychology $1101\{101\}$ during their first year at Bowdoin and to enroll in Psychology 2510 and $2520\{251$ and 252$\}$ during their second year. Students must take Psychology $2510\{251\}$ before 2520 $\{252\}$, and Psychology $2510\{251\}$ must be taken prior to any course numbered 2700 and above $\{260$ and above $\}$. Psychology $2520\{252\}$ must be taken concurrently with (or prior to enrollment in) any laboratory course (numbered 2700 to 2799 , with the exception that $2520\{252\}$ is not required for $2720\{260\}$ ) but must be taken prior to any advanced course (numbered 3000-3999 \{300-399\}). If possible, students should begin their laboratory work no later than the fall of their junior year. Those who plan to study away from campus for one or both semesters of their junior year should complete at least one laboratory course before leaving for their off-campus experience and plan their courses so that they can complete the major after returning to campus. Students should speak with the chair of the department regarding their off-campus study plans and transfer of credit toward the major. Laboratory or advanced courses taken elsewhere may be counted as electives but are not normally counted toward the laboratory or advanced course requirement.

## Requirements for the Minor in Psychology

The psychology minor comprises six courses, including Psychology $1101\{101\}, 2510\{251\}$, and $2520\{252\}$, and one laboratory course.

## Grade Requirements

To fulfill a major (or minor) requirement in psychology, or to serve as a prerequisite for another psychology course, a grade of C - or better must be earned in a course. There is one exception: Psychology $1101\{101\}$ may be taken with the Credit/D/Fail grading option, and it will count toward the major (or minor) and serve as a prerequisite for other psychology courses if a grade of CR (Credit) is earned for the course.

## AP/IB Policy

Students who receive an AP score of 4 or higher on the psychology exam are considered to have met the prerequisite for courses requiring Psychology 1101 \{101\}. Students who receive an IB score of 5 or higher on the (higher level) psychology exam are considered to have met the prerequisite for courses requiring Psychology 1101 \{101\}. If students place out of Psychology 1101 \{101\}, ten psychology courses must still be completed for the major, and six for the minor.

## Requirements for the Major in Neuroscience

See Neuroscience, pages 248-249.

## Courses in Psychology

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
[1010 \{10\} b. What's on Your Mind? An Introduction to the Brain and Behavior.]

## Introductory Courses

1101 \{101\} b. Introduction to Psychology. Every semester. The Department.
A general introduction to the major concerns of contemporary psychology, including physiological psychology, perception, learning, cognition, language, development, personality, intelligence, and abnormal and social behavior. Recommended for first- and second-year students. Juniors and seniors should enroll in the spring semester.

## Intermediate Courses

$2010\{210\}$ b. Infant and Child Development. Fall 2013 and Spring 2014. Katherine D. O'Doherty.

A survey of major changes in psychological functioning from conception through childhood. Several theoretical perspectives are used to consider how physical, personality, social, and cognitive changes jointly influence the developing child's interactions with the environment.
Prerequisite: Psychology 1101 \{101\} or placement above Psychology 1101 \{101\}.
2012 \{222\} b. Educational Psychology. Fall 2013. Kathryn Byrnes.
Examines theories of how people learn and the implications of those theories for the education of all students, particularly those who have been traditionally underserved in the United States. Course concepts will be grounded in empirical research and authentic activities geared toward understanding the nuances and complexities of perspectives on behavior, cognition, development, motivation, sociocultural identities, and pedagogy in PreK-12 educational contexts. Insights for the ways educators can structure learning experiences to better serve students' needs from a variety of backgrounds will be cultivated through a field placement working with students. (Same as Education 2222 \{222\}.)

Prerequisite: Education 1101 \{101\}, Psychology 1101 \{101\}, or placement above Psychology 1101 \{101\}.

2020 \{211\} b. Personality. Every fall. Barbara S. Held.
A comparative survey of theoretical and empirical attempts to explain personality and its development. The relationships of psychoanalytic, interpersonal, humanistic, and behavioral approaches to current research are considered.
Prerequisite: Psychology $1101\{101\}$ or placement above Psychology $1101\{101\}$.
$2030\{212\}$ b. Social Psychology. Every spring. Paul E. Schaffner.
A survey of theory and research on individual social behavior. Topics include self-concept, social cognition, affect, attitudes, social influence, interpersonal relationships, and cultural variations in social behavior.

Prerequisite: Psychology 1101 \{101\}, placement above Psychology $1101\{101\}$, or Sociology 1101 \{101\}.
$2040\{216\}$ b. Cognitive Psychology. Every fall. Louisa M. Slowiaczek.
A survey of theory and research examining how humans perceive, process, store, and use information. Topics include visual perception, attention, memory, language processing, decision making, and cognitive development.

Prerequisite: Psychology $1101\{101\}$ or placement above Psychology $1101\{101\}$.
2050 \{218\} a. Physiological Psychology. Every spring. Richmond R. Thompson.
An introductory survey of biological influences on behavior. The primary emphasis is on the physiological regulation of behavior in humans and other vertebrate animals, focusing on genetic, developmental, hormonal, and neuronal mechanisms. Additionally, the evolution of these regulatory systems is considered. Topics discussed include perception, cognition, sleep, eating, sexual and aggressive behaviors, and mental disorders.

Prerequisite: One of the following: Psychology 1101 \{101\}, placement above Psychology 1101 \{101\}, Biology $1102\{102\}$ or $1109\{109\}$.
$2510\{251\}$ b. Research Design in Psychology. Every fall. Paul E. Schaffner. Every spring. Louisa M. Slowiaczek.

A systematic study of the scientific method as it underlies psychological research. Topics include prominent methods used in studying human and animal behavior, the logic of causal analysis, experimental and non-experimental designs, issues in internal and external validity, pragmatics of careful research, and technical writing of research reports.
Prerequisite: Psychology 1101 \{101\} or placement above Psychology 1101 \{101\}.
$2520\{252\}$ a - MCSR. Data Analysis. Fall 2013. Suzanne B. Lovett. Spring 2014. Erika M. Nyhus.

An introduction to the use of descriptive and inferential statistics and design in behavioral research. Weekly laboratory work in computerized data analysis. Required of majors no later than the junior year, and preferably by the sophomore year.
Prerequisite: Psychology $1101\{101\}$ or placement above Psychology $1101\{101\}$, and one of the following: Psychology $2510\{251\}$, Biology $1102\{102\}$ or $1109\{109\}$.

## Courses That Satisfy the Laboratory Requirement

2710 \{277\} b. Research in Developmental Psychology. Every spring. Samuel P. Putnam.
The multiple methods used in developmental research are examined both by reading research reports and by designing and conducting original research studies. The methods include observation, interviews, questionnaires, lab experiments, among others. Students learn to evaluate the relative strengths and weaknesses of both qualitative and quantitative approaches.

Prerequisite: Psychology $2010\{210\}, 2510\{251\}$, and previous credit or concurrent registration in Psychology $2520\{252\}$.
$2720\{260\}$ b. Abnormal Psychology. Every spring. Spring 2014. Julie L. Quimby.
A general survey of the nature, etiology, diagnosis, and treatment of common patterns of mental disorders. Students participate in a weekly supervised practicum at a local psychiatric unit.

Prerequisite: Psychology $2020\{211\}$ and $2510\{251\}$.
$2730\{274\}$ b. Laboratory in Group Dynamics. Every fall. Paul E. Schaffner.
Principles and methods of psychological research, as developed in Psychology 2510 \{251\} and $2520\{252\}$, are applied to the study of small group interaction. Students design, conduct, and report on social behavior research involving an array of methods to shape and assess interpersonal behavior.

Prerequisite: One of the following: Psychology $2020\{211\}, 2030\{212\}$, or $2031\{214\}$; and Psychology $2510\{251\}$; and previous credit or concurrent registration in Psychology 2520 $\{252\}$.
$2740\{270\}$ b. Laboratory in Cognition. Every fall. Louisa M. Slowiaczek.
An analysis of research methodology and experimental investigations in cognition, including such topics as auditory and sensory memory, visual perception, attention and automaticity, retrieval from working memory, implicit and explicit memory, metamemory, concept formation, and reasoning. Weekly laboratory sessions allow students to collect and analyze data in a number of different areas of cognitive psychology.

Prerequisite: Psychology $2040\{216\}, 2510\{251\}$, and previous credit or concurrent registration in Psychology $2520\{252\}$.
$2750\{275\}$ a - INS. Laboratory in Behavioral Neuroscience: Social Behavior. Every spring. Richmond R. Thompson.

A laboratory course that exposes students to modern techniques in neuroscience that can be applied to the study of social behavior. Underlying concepts associated with various molecular, neuroanatomical, pharmacological, and electrophysiological methods are discussed in a lecture format. Students then use these techniques in laboratory preparations that demonstrate how social behavior is organized within the central nervous system of vertebrate animals, including humans.

Prerequisite: Psychology $2050\{218\}$ or Biology $2011\{213\}$; one of the following: Psychology $2510\{251\}$, Biology $1102\{102\}$ or $1109\{109\}$; and previous credit or concurrent registration in Psychology $2520\{252\}$ or Mathematics $1300\{165\}$.

2775 \{280\} a - MCSR, INS. Laboratory in Cognitive Neuroscience. Fall 2013. Erika M. Nyhus.

A laboratory course that exposes students to multiple techniques in cognitive neuroscience that can be applied to the study of human cognition. Introduces human neuroimaging methods including electroencephalography (EEG) and functional magnetic resonance imaging (fMRI). Students will then use these methods to study aspects of human cognition including perception, attention, memory, language, problem solving, reasoning, and decision making.

Prerequisite: Psychology $2050\{218\}$ or Biology $2135\{213\}$; and previous credit or concurrent enrollment in Psychology $2520\{252\}$ or Mathematics $1300\{165\}$.

## Advanced Courses

$3010\{320\}$ b. Social Development. Fall 2013. Samuel P. Putnam.
Research and theory regarding the interacting influences of biology and the environment as they are related to social and emotional development during infancy, childhood, and adolescence. Normative and idiographic development in a number of domains, including
morality, aggression, personality, sex roles, peer interaction, and familial relationships are considered.

Prerequisite: Psychology $2010\{210\}$ or 2031 \{214\} (same as Gender and Women's Studies $2506\{214\}$ ), and Psychology $2510\{251\}$ and $2520\{252\}$.
3020 \{309\} b. Psychotherapy, Psychology, and Philosophy. Every fall. Barbara S. Held.
Many clinical psychologists are returning to psychology's roots in philosophy for guidance on how to best understand the nature and purposes of psychotherapy. Considers the clinical, scientific, and underlying philosophical issues that pertain to different systems of psychotherapy. In exploring different approaches to psychotherapy, particular attention is given to such questions as the nature of personhood and the self, methods of obtaining self-knowledge and warrant for claims about self-knowledge, whether humans have free will, the nature of therapeutic change, and the nature of human happiness or well being. Current debates about a proper science of psychotherapy are emphasized.
Prerequisite: Psychology $2020\{211\}, 2510\{251\}$, and $2520\{252\}$.
$3030\{328\}$ b. Psychological Studies of Creativity. Spring 2014. Paul E. Schaffner.
Explores the nature, origins, processes, and consequences of creative activity in the arts and sciences, in public affairs, and in daily living. Examines psychological processes that support creative thought and action by individuals and collaborative groups, and ways that sociocultural contexts stimulate, recognize, and sanction such work. Readings and seminar discussions address aspects of personality, aptitude, cognition, motivation, self-regulation, and psychopathology in relation to creativity; and the influences of family and education in developing and expressing creative potential.
Prerequisite: Psychology $2510\{251\}$ and $2520\{252\}$.
$3040\{317\}$ b. The Psychology of Language. Every spring. Louisa M. Slowiaczek.
An examination of psychological factors that affect the processing of language, including a discussion of different modalities (auditory and visual language) and levels of information (sounds, letters, words, sentences, and text/discourse). Emphasis is on the issues addressed by researchers and the theories developed to account for our language abilities.
Prerequisite: Psychology $2040\{216\}, 2510\{251\}$, and $2520\{252\}$.
$3050\{315\}$ a. Hormones and Behavior. Every other fall. Fall 2014. Richmond R. Thompson.
An advanced discussion of concepts in behavioral neuroendocrinology. Topics include descriptions of the major classes of hormones, their roles in the regulation of development and adult behavioral expression, and the cellular and molecular mechanisms responsible for their behavioral effects. Hormonal influences on reproductive, aggressive, and parental behaviors, as well as on cognitive processes are considered.
Prerequisite: Psychology $2050\{218\}$ or Biology 2011 \{213\}; one of the following: Psychology $2510\{251\}$, Biology $1102\{102\}$ or $1109\{109\}$; and Psychology $2520\{252\}$ or Mathematics $1300\{165\}$.

3051 \{316\} a. Comparative Neuroanatomy. Every other fall. Fall 2013. Richmond R. Thompson.

An advanced discussion of concepts in vertebrate brain organization. The primary emphasis is upon structure/function relationships within the brain, particularly as they relate to behavior.

Topics include basic neuroanatomy, brain development and evolution, and the neural circuitry associated with complex behavioral organization. Studies from a variety of animal models and from human neuropsychological assessments are used to demonstrate general principles of brain evolution and function.

Prerequisite: Psychology $2050\{218\}$ or Biology $2135\{213\}$; one of the following: Psychology $2510\{251\}$, Biology 1102 \{102\} or 1109 \{109\}; and Psychology $2520\{252\}$ or Mathematics $1300\{165\}$.

## Independent Study and Honors

2970-2973 \{291-294\} b. Intermediate Independent Study in Psychology. The Department.
2999 \{299\} b. Intermediate Collaborative Study in Psychology. The Department.
4000-4003 \{401-404\} b. Advanced Independent Study in Psychology. The Department.
$4029\{405\}$ b. Advanced Collaborative Study in Psychology. The Department.
4050-4051 b. Honors Project in Psychology. The Department.

# RELIGION 

Jorunn J. Buckley, Department Chair
Lynn A. Brettler, Department Coordinator
Professors: Jorunn J. Buckley, John C. Holt (Asian Studies)
Associate Professors: Robert G. Morrison, Elizabeth A. Pritchard

The Department of Religion offers students opportunities to study the major religions of the world, East and West, ancient and modern, from a variety of academic viewpoints and without sectarian bias.

Each major is assigned a departmental advisor who assists the student in formulating a plan of study in religion and related courses in other departments. The advisor also provides counsel in career planning and graduate study.

## Requirements for the Major in Religion

The major consists of nine courses in religion, including two required courses-Religion $1101\{101\}$ : Introduction to the Study of Religion and Religion $3390\{390\}$ : Theories about Religion. For the seven remaining courses, four courses are to be taken at the intermediate level (numbered 2000-2999 \{200-289\}), one in each of the following four designated areas: (1) Asian Religions, (2) Bible and Comparative Studies, (3) Christianity and Gender, and (4) Islam and Post-Biblical Judaism. Majors must also complete an additional advanced course in religion (numbered 3000-3999 \{300-399\}) and two electives, one of which may be a first-year seminar (numbered 1000-1049 \{10-29\}).

In order to enroll in Religion $3390\{390\}$, a major normally will be expected to have taken four of the nine required courses. This seminar is also open to qualified non-majors with permission of the instructor. In addition, candidates for honors complete a tenth course, advanced independent study, as part of their honors projects. (See below, "Honors in Religion.") No more than one first-year seminar may be counted toward the major. No
more than three courses taken at other colleges or universities will count toward the major. Courses that will count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail).

## Honors in Religion

Students contemplating honors candidacy should possess a record of distinction in departmental courses, including those that support the project, a clearly articulated and well-focused research proposal, and a high measure of motivation and scholarly maturity. At the start of the fall semester of their senior year, honors candidates enroll in an advanced independent study with a faculty member who has agreed to supervise the project. If the proposal, due toward the end of the fall semester, is accepted, the student goes on to enroll in an advanced independent study for the spring semester in order to complete the project. Please see the Department of Religion website for more details.

## Requirements for the Minor in Religion

A minor consists of five courses-Religion 1101 \{101\}; three courses at the intermediate level (numbered 2000-2969 \{200-289\}), at least one of which shall be in Western religions and cultures and one in Asian religions and cultures; and Religion 3390 \{390\}.

## First-Year Seminars

These introductory courses focus on the study of a specific aspect of religion, and may draw on other fields of learning. They are not intended as prerequisites for more advanced courses in the department unless specifically designated as such. They include readings, discussion, reports, and writing. Topics change from time to time to reflect emerging or debated issues in the study of religion. For a full description of first-year seminars, see pages 157-168.
$1015\{15\}$ c. Religion, Violence, and Secularization. Fall 2013. Elizabeth Pritchard.
[ 1027 \{27\} c. Astral Religion in the Near East and Classical Antiquity.]

## Introductory Courses

1101 \{101\} c - ESD. Introduction to the Study of Religion. Fall 2013. Robert G. Morrison. Spring 2014. Elizabeth Pritchard.
Basic concepts, methods, and issues in the study of religion, with special reference to examples comparing and contrasting Asian and Western religions. Lectures, films, discussions, and readings in a variety of texts such as scriptures, novels, and autobiographies, along with modern interpretations of religion in ancient and contemporary, Asian, and Western contexts.
1116 \{116\} c. Christian Sexual Ethics. Fall 2015. Elizabeth Pritchard.
An examination of the themes, varieties, and conflicts of Christian teachings and practices regarding sex and sexuality. Source materials include the Bible, historical analyses, Church dogmatics, legal cases, and ethnographic studies. Topics include celibacy and marriage, the development and status of sexual orientations, natural law, conversion therapy, reproductive rights and technologies, and comparative religious ethics. (Same as Gay and Lesbian Studies $1116\{116\}$ and Gender and Women's Studies 1117 \{117\}.)
[1125 \{125\} c - ESD, IP. Entering Modernity: European Jewry. (Same as History 1180 \{125\}.)]
[1142 \{142\} c. Philosophy of Religion. (Same as Philosophy 1442 \{142\}.)]

## Intermediate Courses

Asian Religions (2219-2229 \{219-229\}); Bible and Comparative Studies (2205 \{205\}, 2215 $\{215\}, 2216\{216\}, 2275\{275\})$; Christianity and Gender (2249-2259 \{249-259\}); Islam and Post-Biblical Judaism ( $2207\{207\}, 2208\{208\}, 2210\{210\}, 2232\{232\}$.)
2201 \{201\} c - ESD, VPA. Black Women, Politics, Music, and the Divine. Fall 2014. Judith Casselberry.

Seminar. Examines the convergence of politics and spirituality in the musical work of contemporary Black women singer-songwriters in the United States. Analyzes material that interrogates and articulates the intersections of gender, race, class, and sexuality, generated across a range of religious and spiritual terrains with African diasporic/Black Atlantic spiritual moorings, including Christianity, Islam, and Yoruba. Focuses on material that reveals a womanist (Black feminist) perspective by considering the ways resistant identities shape and are shaped by artistic production. Employs an interdisciplinary approach by incorporating ethnomusicology, anthropology, literature, history, and performance and social theory. Explores the work of Shirley Caesar, the Clark Sisters, Me'shell Ndegeocello, Abby Lincoln, Sweet Honey in the Rock, and Dianne Reeves, among others. (Same as Africana Studies 2201 \{201\}, Gender and Women’s Studies 2207 \{207\}, and Music 2291 \{201\}.)
2205 \{205\} c. Evil in Religious Contexts. Spring 2014. Jorunn Buckley.
Uses literary, anthropological, and historical examples in order to investigate religious views of "evil" to ask: "Evil" to whom, for/against whom, under what circumstances? Is "evil" a given, and does it have an unquestioned, autonomous existence? Deals with evil as religious/cultural constructs. Among the issues are witchcraft, demons, political-religious-demagogic leaders and their followers, and religious ideologies of murderous-suicidal groups. Sources range from the early medieval Beowulf to present-day extreme forms of Christianity and Islam, covering various time-periods and geographical locales. Not theological or conceptual-abstract; focuses on pragmatics.

## 2207 \{207\} c - ESD. Introduction to Judaism. Fall 2013. Robert G. Morrison.

Surveys Jewish texts, traditions, and beliefs from the end of the Hellenistic period to the origins of the Reform, Reconstructionist, Conservative, and Modern Orthodox movements in Europe and America. With an emphasis throughout on the role of historical drama in Jewish practice, pays special attention to the formation of Rabbinic Judaism, medieval Jewish literature and thought, and to how Jews' historical memory affected their responses to the Enlightenment.

2208 \{208\} c - IP. Islam. Fall 2014. Robert G. Morrison.
With an emphasis on primary sources, pursues major themes in Islamic civilization from the revelation of the Qur'an to Muhammad until the present. From philosophy to political Islam, and from mysticism to Muslims in America, explores the diversity of a rapidly growing religious tradition.

2210 \{210\}c - IP. Esoteric Themes in Islamic Thought. Spring 2014. Robert G. Morrison.
Explores, historically, the development and growth of Sufism and other esoteric movements of Islam. Questions that will arise include: Do these esoteric and mystical ideas supplant or complement the exoteric practices and beliefs of Islam? Why is Sufism important for Sufis? How do we study religious ideas that thrive, sometimes, on defying description?

2216 \{216\} c - ESD. The New Testament in Its World. Fall 2013. Jorunn J. Buckley.
Situates the Christian New Testament in its Hellenistic cultural context. While the New Testament forms the core of the course, attention is paid to parallels and differences in relation to other Hellenistic religious texts: Jewish, (other) Christian, and pagan. Religious leadership, rituals, secrecy, philosophy of history, and salvation are some of the main themes.

## [2217 \{217\} c - ESD. Gnosticism.]

2219 \{219\} c. Religion and Fiction in Modern South Asia. Spring 2015. John Holt.
A study of the Hindu and Buddhist religious cultures of modern South Asia as they have been imagined, represented, interpreted, and critiqued in the literary works of contemporary and modern South Asian writers of fiction and historical novels. (Same as Asian Studies 2550 \{219\}.)
2220 \{220\} c - IP. Hindu Literatures. Spring 2014. John Holt and Sree Padma Holt.
A reading and discussion of translated classical Hindu literature, including the Rg Veda, Upanishads, Yoga Sutra, the epics Ramayana, Mahabharata (including the Bhagavad Gita), Devi Mahatmya and the Cilapatikaram, etc. Focuses on development of various types of religious worldviews and religious experiences as reflected in classical Sanskrit and vernacular literature of India. (Same as Asian Studies $2552\{240\}$ ).

## 2221 \{221\} c - IP. Hindu Cultures. Spring 2015. John Holt.

A consideration of various types of individual and communal religious practice and religious expression in Hindu tradition, including ancient ritual sacrifice, mysticism and yoga (meditation), dharma and karma (ethical and political significance), pilgrimage (as inward spiritual journey and outward ritual behavior), puja (worship of deities through seeing, hearing, chanting), rites of passage (birth, adolescence, marriage, and death), etc. Focuses on the nature of symbolic expression and behavior as these can be understood from indigenous theories of religious practice. Religion $2220\{220\}$ is recommended as a previous course. (Same as Asian Studies 2553 \{241\}.)
2222 \{222\} c - ESD, IP. Theravada Buddhism. Fall 2013. John Holt.
An examination of the major trajectories of Buddhist religious thought and practice as understood from a reading of primary and secondary texts drawn from the Theravada traditions of India, Sri Lanka, Thailand, and Burma. (Same as Asian Studies 2554 \{242\}.)

2223 \{223\} c - IP. Mahayana Buddhism. Fall 2014. John Holt.
Studies the emergence of Mahayana Buddhist worldviews as reflected in primary sources of Indian, Chinese, and Japanese origins. Buddhist texts include the Buddhacarita ("Life of Buddha"), the Sukhavati Vyuba ("Discourse on the 'Pure Land"), the Vajraccedika Sutra (the "Diamond-Cutter"), the Prajnaparamitra-brdaya Sutra ("Heart Sutra of the Perfection of Wisdom"), the Saddbarmapundarika Sutra (the "Lotus Sutra"), and the Platform Sutra of the Sixth Patriarch, among others. (Same as Asian Studies 2551 \{223\}.)
2232 \{232\} c - IP. Approaches to the Qur'an. Spring 2014. Robert G. Morrison.
Explores a variety of approaches to and interpretations of the Qur'an, the foundational text of Islam. Special attention will be paid to the Qur'an's doctrines, to the Qur'an's role in Islamic law, to the Qur'an's relationship to the Bible, and to the Qur'an's historical context. While the Qur'an will be read entirely in English translation, explores the role of the Arabic Qur'an in the lives of Muslims worldwide.

2247 \{247\} c - ESD, IP. Global Pentecostalism: The Roots and Routes of TwentiethCentury Christianity. Spring 2014. Judith Casselberry.

Seminar. Pentecostalism is a form of Christianity centered on the gifts of the Holy Spirit. Pentecostals speak in tongues, heal, prophesize, see visions, and exorcise demons. By many accounts, Pentecostalism is the fastest growing religion in the world. While the Pentecostal population is difficult to count, current estimates place the world's total number of adherents at close to 600 million, of whom $75 \%$ are women. With particular attention to its intersections with gender, ethnicity, and class, explores the religion's appeal; its impact on devotees' lives; and resultant local, regional, and global implications. Case studies include the Americas, the Caribbean, and Africa. (Same as Africana Studies $2235\{242\}$ and Gender and Women's Studies 2229.)

2252 \{252\} c. Marxism and Religion. Fall 2013. Elizabeth Pritchard.
Despite Karl Marx's famous denunciation of religion as the "opiate of the masses," Marxism and religion have become companionable in the last several decades. Examines this development through the works of thinkers and activists from diverse religious frameworks, including Catholicism and Judaism, who combine Marxist convictions and analyses with religious commitments in order to further their programs for social emancipation. Included are works by liberation theologians Hugo Assmann, Leonardo Boff, and José Miguez Bonino, and philosophers Theodor Adorno, Walter Benjamin, Herbert Marcuse, and Cornel West.

2253 \{253\} c - ESD. Gender, Body, and Religion. Spring 2016. Elizabeth Pritchard.
A significant portion of religious texts and practices is devoted to the disciplining and gendering of bodies. Examines these disciplines including ascetic practices, dietary restrictions, sexual and purity regulations, and boundary maintenance between human and divine, public and private, and clergy and lay. Topics include desire and hunger, abortion, women-led religious movements, the power of submission, and the related intersections of race and class. Materials are drawn from Christianity, Judaism, Neopaganism, Voudou, and Buddhism. (Same as Gender and Women's Studies 2256 \{256\}.)
2259 \{259\} c. Religious Toleration and Human Rights. Spring 2016. Elizabeth Pritchard.
Is toleration a response to difference we cannot do without, or is it simply a strategy for producing religious subjectivities that are compliant with liberal political rule? Is toleration a virtue like forgiveness or a poor substitute for justice? Examines the relationship between early modern European arguments for toleration and the emergence of universal human rights as well as the continuing challenges that beset their mutual implementation. Some of these challenges include confronting the Christian presuppositions of liberal toleration, accommodating the right to religious freedom while safeguarding cultural diversity by prohibiting proselytism, and translating arguments for religious toleration to the case for nondiscrimination of sexual orientations and relationships. In addition to case studies and United Nations documents, course readings include selections from Locke, Marx, Heyd, Walzer, Brown, Pellegrini, and Richards.

2271 \{271\} c - ESD. Spirit Come Down: Black Women and Religion. Spring 2015. Judith Casselberry.

Explores issues of self-representation, memory, material culture, embodiment, and civic and political engagement through autobiographical, historical, literary, anthropological, cinematic, and musical texts. Primarily focused on Christian denominations: Methodist, Baptist, and

Pentecostal. Examines the religious lives of black women in nineteenth- and twentieth-century America. (Same as Africana Studies 2271 \{271\} and Gender and Women's Studies 2270 \{270\}.)
[2275 \{275\} b - ESD. Comparative Mystical Traditions.]
2276 \{276\} c - ESD, IP. Religion and the Unconscious. Fall 2013. Jorunn J. Buckley.
A focus of three central figures in psychology and religion: Sigmund Freud and his pupils C. G. Jung and Wilhelm Reich, none of whom is particularly "popular" at present. Selected writings by them, and by William James, on individual religious experience, and study of Islamic mysticism and an anthropological critique of the modern appropriation of the term "shamanism."

2288 c - IP. Religious Culture and Political Change in Southeast Asia. Spring 2014. John Holt.

An examination of the ways in which changes in political economies and societies of Sri Lanka, Burma, Thailand, Laos, and Cambodia have fostered changes in the predominantly Theravada Buddhist religious cultures of modern Southeast Asia. Focuses include how civil wars in Sri Lanka and Burma, revolutions in Laos and Cambodia, and the ideology of kingship in Thailand have elicited changes in the public practice and understanding of religion. Previous credit in Religion $2222\{222\}$ (same as Asian Studies $2554\{242\}$ ) is highly recommended. (Same as Asian Studies 2555.)

2970-2973 \{291-294\} c. Intermediate Independent Study in Religion. The Department.

## 2999 \{299\} c. Intermediate Collaborative Study in Religion. The Department.

## Advanced Courses

The following courses study in depth a topic of limited scope but major importance, such as one or two individuals, a movement, type, concept, problem, historical period, or theme. Topics change from time to time. Religion $3390\{390\}$ is required for majors, and normally presupposes that four of nine required courses have been taken.
[3344 \{344\} c. Religious Culture and Politics in Southeast Asia. (Same as Asian Studies $3550\{344\}$ and Government $3900\{393\}$.]
$3390\{390\}$ c. Theories about Religion. Fall 2013. John Holt.
Seminar focused on how religion has been explained and interpreted from a variety of intellectual and academic perspectives from the sixteenth century to the present. In addition to a historical overview of religion's interpretation and explanation, the focus also includes consideration of postmodern critiques and the problem of religion and violence in the contemporary world.

Prerequisite: Religion 1101 \{101\}.
4000-4003 \{401-404\} c. Advanced Independent Study in Religion. The Department. $4029\{405\}$ c. Advanced Collaborative Study in Religion. The Department.
4050-4051 c. Honors Project in Religion. The Department.

# Romange Languages 

Elena Cueto Asín, Department Chair<br>Kate Flaherty, Department Coordinator<br>Associate Professors: Elena Cueto Asín, Charlotte Daniels, Katherine Dauge-Roth, Gustavo Faverón Patriau, Arielle Saiber, Hanétha Vété-Congolo, Enrique Yepes<br>Assistant Professors: Margaret Boyle, Nadia V. Celis, Allison Cooper, Carolyn Wolfenzon<br>Senior Lecturers: Anna Rein, Eugenia Wheelwright $\dagger$<br>Lecturers: Davida Gavioli<br>Visiting Faculty: Erin Curren, María Báez Marco, Jay Ketner<br>Teaching Fellows: Xiomara Albornoz, Gaëlle Jaoen, Lauriane Pegon, Fulvia Sarnelli

The Department of Romance Languages offers courses in French, Italian, and Spanish language, literature, and culture. In addition to focusing on developing students' fluency in the languages, the department provides students with a broad understanding of the cultures and literatures of the French-speaking, Italian-speaking, and Spanish-speaking worlds through a curriculum designed to prepare students for teaching, international work, or graduate study. Native speakers are involved in most language courses. Unless otherwise indicated, all courses are conducted in the respective language.

## Study Abroad

A period of study in an appropriate country, usually in the junior year, is strongly encouraged for all students of language. Bowdoin College is affiliated with a wide range of excellent programs abroad, and interested students should seek the advice of a member of the department early in their sophomore year to select a program and to choose courses that complement the offerings at the College.

## Independent Study

This is an option primarily intended for students who are working on honors projects. It is also available to students who have taken advantage of the regular course offerings and wish to work more closely on a particular topic. Independent study is not an alternative to regular course work. An application should be made to a member of the department prior to the semester in which the project is to be undertaken and must involve a specific proposal in an area in which the student can already demonstrate knowledge.

## Honors in Romance Languages

Majors may elect to write an honors project in the department. This involves two semesters of independent study in the senior year and the writing of an honors essay and its defense before a committee of members of the department. Candidates for departmental honors must have an outstanding record in other courses in the department.

## Requirements for Majors in the Department of Romance Languages

Students may declare a major in French or in Spanish or in Romance languages (with courses in two of the three languages: French, Italian, and Spanish). All majors are expected to achieve breadth in their knowledge of the French-, Italian-, and/or Spanish-speaking worlds by taking courses on the literatures and cultures of these areas from their origins to the present. Students should also take complementary courses in study-away programs or in other
departments and programs such as art history, Latin American studies, history, English, and Africana studies. The major consists of nine courses more advanced than French 2204 \{204\} or Spanish $2204\{204\}^{*}$. Students must achieve a grade of C- or higher in all prerequisite courses.

All majors in Spanish, French, and Romance languages will complete at least three advanced courses (numbered 3000-3999 \{300-399\}). No more than two courses may be in independent study, and no fewer than five Bowdoin courses should be taken. Students who study abroad for one semester will receive a maximum of three credits toward the major. Those who study abroad for the academic year will receive a maximum of four credits toward the major.

## French Major Requirements

Nine courses higher than French $2204\{204\}^{*}$, including:

1. At least two of the following five courses: French $2407\{207\}$ (same as Africana Studies $2407\{207\}$ and Latin American Studies $2407\{206\}$ ) or $2408\{208\}$ or the equivalent in study abroad; and French $2409\{209\}, 2410\{210\}$, or $2411\{211\}$, or the equivalent in study abroad.
2. Three courses at the $3000\{300\}$ level, including French $3299\{351\}$ (senior seminar), if offered. At least two advanced courses (numbered 3000-3999 \{300-399\}) must be taken at Bowdoin.
3. Students are strongly encouraged to include courses dealing with all periods and several Francophone contexts.

## Spanish Major Requirements

Nine courses higher than Spanish 2204 \{204\}*:

1. Spanish $2305\{205\}$ (same as Latin American Studies $2305\{205\}$ ), $2409\{209\}$ (same as Latin American Studies $2409\{209\}$ ), and $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ).
2. Three courses at the advanced level (numbered 3000-3999 \{300-399\})—at least two of which must be taken at Bowdoin.
3. Students are strongly encouraged to include courses dealing with all periods and several Spanish-speaking contexts.

## Romance Languages Major Requirements

Nine courses higher than $2204\{204\}^{*}$ in at least two languages, including the corresponding requirements below:

1. French $2407\{207\}$ (same as Africana Studies $2407\{207\}$ and Latin American Studies 2407 $\{206\}$ ) or $2408\{208\}$ and $2409\{209\}, 2410\{210\}$, or $2411\{211\}$, or the equivalent in study abroad.
2. Italian $2305\{205\}$ and $2408\{208\}$ or the equivalent in study abroad, if combining Spanish or French with Italian.
3. Spanish $2409\{209\}$ (same as Latin American Studies $2409\{209\}$ ) and $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), or the equivalent in study abroad.
4. Three courses at the advanced level (numbered 3000-3999 \{300-399\}), at least two of which must be taken at Bowdoin. These courses may be taken in either or both languages. If one of the languages is Italian, at least one advanced level course (numbered 3000-3999 \{300-399\}) must be in Italian.

## Requirements for Minors in Romance Languages

Students may declare a minor in French, Italian, or Spanish. A minor in French or Spanish consists of at least four Bowdoin courses in one language numbered higher than 2204 \{204\}, including one advanced course (numbered 3000-3999 \{300-399\}). A minor in Italian consists of at least three Bowdoin Italian courses numbered higher than 2204 \{204\}, including one advanced course (numbered 3000-3999 \{300-399\}). The Italian minor may include one intermediate course (numbered 2000-2969 \{200-289\} or equivalent) from abroad; the advanced course (numbered 3000-3999 \{300-399\}) must be taken at Bowdoin. Courses taken abroad do not count for the French or Spanish minor.

## Placement

Entering first-year and transfer students who plan to take French, Italian, or Spanish must take the appropriate placement test, administered online during the summer. Students with questions regarding placement should speak with a faculty member in the department.

## French

## Introductory, Intermediate, and Advanced Courses

$1101\{101\}$ c. Elementary French I. Every fall. Fall 2013. Erin Curren.
A study of the basic forms, structures, and vocabulary. Emphasis on listening comprehension and spoken French. Three class hours per week and one weekly conversation session with assistant. Primarily open to first- and second-year students who have had two years or less of high school French. A limited number of spaces are available for juniors and seniors.
$1102\{102\}$ c. Elementary French II. Every spring. Spring 2014. Katherine Dauge-Roth.
A continuation of French 1101 \{101\}. A study of the basic forms, structures, and vocabulary. Emphasis on listening comprehension and spoken French. During the second semester, more stress is placed on reading and writing. Three class hours per week and one weekly conversation session with assistant.

Prerequisite: French 1101 \{101\} or the equivalent.
2203 \{203\} c. Intermediate French I. Every fall. Fall 2013. Jay Ketner and Hanétha Vété-Congolo.
A review of basic grammar, which is integrated into more complex patterns of written and spoken French. Short compositions and class discussions require active use of students' acquired knowledge of French. Three class hours per week and one weekly conversation session with teaching fellow.

Prerequisite: French 1102 \{102\} or placement in French 2203.
2204 \{204\} c. Intermediate French II. Every spring. Spring 2014. Charlotte Daniels.
Continued development of oral and written skills; course focus shifts from grammar to reading. Short readings from French literature form the basis for the expansion of vocabulary
and analytical skills. Active use of French in class discussions and conversation sessions with French assistants. Three class hours per week and one weekly conversation session with teaching fellow.

Prerequisite: French 2203 \{203\} or placement in French 2204.
$2305\{205\}$ c. Advanced French through Film. Every fall. Fall 2013. Charlotte Daniels and Jay Ketner.

An introduction to film analysis. Conversation and composition based on a variety of contemporary French and Francophone films. Grammar review and frequent short papers. Emphasis on student participation including short presentations and a variety of oral activities. Three hours per week plus one weekly viewing session for films and weekly conversation session with teaching fellow.

Prerequisite: French $2204\{204\}$ or placement in French 2305.
2407 \{207\} c - ESD, IP. Francophone Cultures. Every fall. Fall 2013. Hanétha Vété-Congolo.
An introduction to the cultures of various French-speaking regions outside of France. Examines the history, politics, customs, cinema, and the arts of the Francophone world, principally Africa and the Caribbean. (Same as Africana Studies 2407 \{207\} and Latin American Studies 2407 \{206\}.)

Prerequisite: French 2305 \{205\} or higher, placement in French 2407, or permission of the instructor.

2408 \{208\} c - ESD, IP. Contemporary France through the Media. Every spring. Spring 2014. Charlotte Daniels and Katherine Dauge-Roth.

An introduction to contemporary France through newspapers, magazines, television, music, and film. Emphasis is on enhancing communicative proficiency in French and increasing cultural understanding prior to study abroad in France.

Prerequisite: French $2305\{205\}$ or higher, or permission of the instructor.
2409 \{209\} c - IP. Introduction to the Study and Criticism of Medieval and Early Modern French Literature. Every fall. Fall 2013. Katherine Dauge-Roth.

An introduction to the literary tradition of France from the Middle Ages to the French Revolution. Students are introduced to major authors and literary movements in their cultural and historical contexts.

Prerequisite: French 2305 \{205\} or higher, placement in French 2409, or permission of the instructor.
$2410\{210\}$ c - IP. Introduction to the Study and Criticism of Modern French Literature. Every spring. Spring 2014. Jay Ketner.

Introduces students to the literary tradition of France from 1789 to the present. Focus on major authors and literary movements in historical and cultural context.
Prerequisite: French $2305\{205\}$ or higher, or permission of the instructor.
$2411\{211\}$ c - ESD, IP. Introduction to the Study and Criticism of Francophone
Literature. Every spring. Spring 2014. Hanétha Vété-Congolo.
Introduces students to the literary tradition of the Francophone world. Focuses on major
authors and literary movements in historical and cultural context. (Same as Africana Studies $2411\{209\}$ and Latin American Studies 2211 \{213\}.)

Prerequisite: French $2305\{205\}$ or higher, or permission of the instructor.
3000-3999 \{309-329\}. Topics in French and Francophone Literature. Every year. The Department.
Designed to provide students who have a basic knowledge of literature in French the opportunity to study more closely an author, a genre, or a period.

## 3201 \{322\} c. Voices of Women, Voices of the People. Spring 2014. Hanétha Vété-Congolo.

Focuses on texts written by women from former West Africa and the Caribbean. Themes treated-womanhood, colonization, slavery, race, individual and collective identity, relationships between men and women, independence, tradition, modernism, and alienationare approached from historical, anthropological, political, social, and ideological perspectives. Readings by Mariama Bâ, Aminata Sow Fall (Sénégal); Tanella Boni (Côte d’Ivoire); Maryse Condé, Gisèle Pineau, Simone Schwartz-Bart (Guadeloupe); Ina Césaire, Fabienne Kanor, Suzanne Dracius (Martinique); and Marie Chauvet, Marie-Célie Agnant, and Kettly Mars (Haïti). (Same as Africana Studies $3201\{321\}$, Gender and Women's Studies 3323 \{323\}, and Latin American Studies 3222 \{322\}.)
Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies $2407\{206\}$ ) or 2408 \{208\}; French $2409\{209\}, 2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.
[3203 \{323\} c. Murder, Monsters, and Mayhem: The fait divers in Literature and Film.] [3204 \{316\} c. French Theater Production.]

3205 \{312\} c. Urban Fictions in Québec Literature: The City as a Space of (Quiet) Revolution. Spring 2014. Jay Ketner.
A study of writing identity and the city in Québec novels from the 1960s to the present, considering Montréal as a primary site of foundational cultural and social transformations that continue to engender, through writing, new social possibilities and configurations. Related issues to be examined include how authors write cultural, political, and gender identity; questions of nationalism; marginalization; and the city and text as places for both understanding and imagining a nation. Authors studied may include Gabrielle Roy, Hubert Aquin, Monique LaRue, Jacques Godbout, Nicole Brossard, and Carole David.
Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies 2407 \{206\}) or 2408 \{208\}; French $2409\{209\}, 2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.
[3206 \{326\} c. Body Language: Writing Corporeality in France.]
3207 \{327\} c. Love, Letters, and Lies. Fall 2013. Charlotte Daniels.
A study of memoir novels, epistolary novels (letters), and autobiography. What does writing have to do with love and desire? What is the role of others in the seemingly personal act of "self-expression"? What is the truth value of writing that circulates in the absence of its author? These and other related issues are explored in the works of the most popular writers of eighteenth-century France: Prévost, Graffigny, Laclos, and Rousseau. Conducted in French.

Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies 2407 \{206\}) or 2408 \{208\}; French $2409\{209\}, 2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.

## [3208 \{328\} c. Wanderings and Displacements: Shifting Identities in Nineteenth-Century French Literature.]

[3209 \{317\} c. Childhood Memories: Reflections on Self and Home in the Postcolonial
Francophone Caribbean. (Same as Africana Studies 3317 \{317\} and Latin American Studies 3217 \{317\}.)]

3210 \{325\} c. Witches, Monsters, and Demons: Representing the Occult in Early Modern France. Fall 2013. Katherine Dauge-Roth.
The occult is, by definition, that which is hidden or unknown, yet popular and scholarly fascination with the shadowy and uncertain worlds of witches, monsters, demons, the devil, and the mysteries of nature and the cosmos has fueled attempts by various authorities, writers, and artists to represent and thus to know, control, or exploit the spectacular potential of the occult. Explores early modern and modern representations of occult figures, events, practitioners, and practices in France through historical, literary, and journalistic readings, art, film, television, and the Web. Emphasis is placed on the early modern period, but analysis of modern inheritances and interest in the occult parallel investigation of earlier periods throughout the course. Conducted in French.

Prerequisite: Two of the following: French 2407 \{207\} (same as Africana Studies 2407 \{207\} and Latin American Studies 2407 \{206\}) or 2408 \{208\}; French $2409\{209\}, 2410\{210\}$, or $2411\{211\}$; one course numbered 3000-3999 \{300-399\} in French; or permission of the instructor.
4000-4003 \{401-404\} c. Independent Study in French. The Department.
4029 \{405\} c. Collaborative Study in French. The Department.
4050-4051 c. Honors Project in French. The Department.

## Italian

1101 \{101\} c. Elementary Italian I. Every fall. Fall 2013. Allison Cooper, Davida Gavioli, and Anna Rein.

Three class hours per week, plus weekly drill sessions and language laboratory assignments. Study of the basic forms, structures, and vocabulary. Emphasis is on listening comprehension and spoken Italian.

1102 \{102\} c. Elementary Italian II. Every spring. Spring 2014. Anna Rein.
Continuation of Italian $1101\{101\}$. Three class hours per week, plus weekly drill sessions and language laboratory assignments. Study of the basic forms, structures, and vocabulary. More attention is paid to reading and writing.
Prerequisite: Italian $1101\{101\}$ or the equivalent.
1103 \{103\} c. Accelerated Elementary Italian. Spring 2014. Arielle Saiber.
Three class hours per week, plus one hour of weekly drill and conversation sessions with a teaching fellow. Covers in one semester what is covered in two semesters in the 1101-1102
$\{101-102\}$ sequence. Study of the basic forms, structures, and vocabulary. Emphasis on listening comprehension and spoken Italian. For students with an advanced knowledge of a Romance language or by permission of instructor.

Prerequisite: Placement into French 2305 \{205\} or higher, or Spanish $2305\{205\}$ or higher, or permission of the instructor.
2203 \{203\} c. Intermediate Italian I. Every fall. Fall 2013. Davida Gavioli.
Three class hours per week and one weekly conversation session with assistant. Aims to increase fluency in both spoken and written Italian. Grammar fundamentals are reviewed. Class conversation and written assignments are based on contemporary texts of literary and social interest.

Prerequisite: Italian 1102 \{102\} or placement in Italian 2203.
$2204\{204\}$ c. Intermediate Italian II. Every spring. Spring 2014. Arielle Saiber.
Three class hours per week and one weekly conversation session with assistant. Aims to increase fluency in both spoken and written Italian. Grammar fundamentals are reviewed. Class conversation and written assignments are based on contemporary texts of literary and social interest.

Prerequisite: Italian 2203 \{203\} or placement in Italian 2204.
$2305\{205\}$ c. Advanced Italian I. Every fall. Fall 2013. Arielle Saiber.
Strengthens fluency in reading, writing, and speaking through an introduction to contemporary Italian society and culture. An advanced grammar review is paired with a variety of journalistic and literary texts, visual media, and a novel. Conducted in Italian.
Prerequisite: Italian 2204 \{204\} or placement in Italian 2305.

## 2408 \{208\} c - IP. Introduction to Contemporary Italy: Dalla Marcia alla Vespa. Spring

 2014. Davida Gavioli.In the recent past, Italy has experienced violent political, economic, and cultural changes. In short succession, it experienced Fascist dictatorship, the Second World War, the Holocaust, and Civil War; a passage from Monarchy to Republic; and a transformation from a peasant existence to an industrialized society, giving rise to a revolution in cinema, fashion, and transportation. How did all this happen? Who were the people behind these events? What effect did they have on everyday life? Answers these questions, exploring the history and the culture of Italy from Fascism to contemporary Italy, passing through the economic boom, the "Years of Lead," and the Mafia. Students have the opportunity to "relive" the events of the twentieth century, assuming the identity of real-life men and women. Along with historical and cultural information, students read newspaper articles, letters, excerpts from novels and short stories from authors such as Calvino, Levi, Ginzburg, and others, and see films by directors such as Scola, Taviani, De Sica, and Giordana.

Prerequisite: Italian $2305\{205\}$ or permission of the instructor.
[2525 \{225\} c - IP. Italians at Sea: Exploration, Love, and Disaster from the Mediterranean to the Seven Seas. (Same as Environmental Studies 2480 \{248\}.)]
2553 c. Italy's Cinema of Social Engagement. Spring 2014. Allison Cooper.
An introduction to Italian cinema with an emphasis on Neorealism and its relationship to other genres, including Comedy Italian Style, the Spaghetti Western, the horror film, the
"mondo" (shock documentary), and mafia movies, among others. Readings and discussions situate films within their social and historical contexts, and explore contemporary critical debates about the place of radical politics in Italian cinema (a hallmark of Neorealism), the division between art films and popular cinema, and the relevance of the concept of an Italian national cinema in an increasingly globalized world. No prerequisite required. Taught in English (films screened in Italian with English subtitles). (Same as Film Studies 2553 \{253\}.)

3009 \{309\} c. Introduction to the Study and Criticism of Medieval and Early Modern Italian Literature. Fall 2013. Arielle Saiber.

An introduction to the literary tradition of Italy from the Middle Ages through the early Baroque period. Focus on major authors and literary movements in their historical and cultural contexts. Conducted in Italian.

Prerequisite: Italian 2305 \{205\} or permission of the instructor.
[3010 \{310\} c. Women of Invention: Contemporary Women's Writing in Italian.]
3016 \{316\} c. Red, White, Green and . . . Noir: Reading Italy through Crime Fiction. Spring 2014. Davida Gavioli.

Examines the genre of the Italian "Giallo" and its importance in contemporary Italian fiction. Considers critical approaches to the genre and addresses specific theoretical and cultural issues in the context of modern Italy, with specific focus on the cultural/geographic context that so thoroughly informs the "Giallo." Examines the style and the formal and thematic choices of authors such as Sciascia, Scerbanenco, Macchiavelli, Lucarelli, Carlotto, and Camilleri.
Prerequisite: Italian $2408\{208\}$ or permission of the instructor.
[ 3018 \{318\} c. From Rimini to Gomorra: Times of Renewal in Contemporary Italian Literature.]
[3020 \{320\} c. Dante's Commedia.]
[3207 \{327\} c - IP. Italians at Sea: Exploration, Love, and Disaster from the Mediterranean to the Seven Seas.]

4000-4003 \{401-404\} c. Independent Study in Italian. The Department.
$4029\{405\}$ c. Collaborative Study in Italian. The Department.

## Spanish

1101 \{101\} c. Elementary Spanish I. Every fall. Fall 2013. María Báez Marco.
An introduction to the grammar of Spanish, aiming at comprehension, reading, writing, and simple conversation. Emphasis is on grammar structure, with frequent oral drills. Spanish $1101\{101\}$ is primarily open to first- and second-year students, with a limited number of spaces available for juniors and seniors who have had less than one year of high school Spanish.
$1102\{102\}$ c. Elementary Spanish II. Every spring. Spring 2014. Margaret Boyle.
Three class hours per week and weekly conversation sessions with assistant, plus laboratory assignments. An introduction to the grammar of Spanish, aiming at comprehension, reading, writing, and simple conversation. More attention is paid to reading and writing.

Prerequisite: Spanish 1101 \{101\} or the equivalent.

2203 \{203\} c. Intermediate Spanish I. Every fall. Fall 2013. Elena Cueto Asín and Carolyn Wolfenzon.

Three class hours per week and one weekly conversation session with the teaching assistant. Grammar fundamentals are reviewed. Class conversation and written assignments are based on readings in modern literature.
Prerequisite: Spanish 1102 \{102\} or placement in Spanish 2203.
2204 \{204\} c. Intermediate Spanish II. Fall 2013. Gustavo Faverón Patriau. Spring 2014. María Báez Marco.

Three class hours per week and one weekly conversation session with the assistant. Grammar fundamentals are reviewed. Class conversation and written assignments are based on readings in modern literature.
Prerequisite: Spanish 2203 \{203\} or placement in Spanish 2204.
2305 \{205\} c. Advanced Spanish. Every semester. Fall 2013. María Báez Marco, Margaret Boyle, and Enrique Yepes. Spring 2014. Nadia V. Celis and Elena Cueto Asín.

The study of topics in the political and cultural history of the Spanish-speaking world in the twentieth century, together with an advanced grammar review. Covers a variety of texts and media and is designed to increase written and oral proficiency, as well as appreciation of the intellectual and artistic traditions of Spain and Latin America. Foundational course for the major. Three class hours per week and one weekly conversation session with assistant. (Same as Latin American Studies 2205 \{205\}.)

Prerequisite: Spanish 2204 \{204\} or placement in Spanish 2305.
2409 \{209\} c - IP. Introduction to Hispanic Studies: Poetry and Theater. Every semester. Fall 2013. Elena Cueto Asín. Spring 2014. Margaret Boyle and Enrique Yepes.

A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of poetry and theater. Examines major literary works and movements in their historical and cultural context. One weekly workshop with assistant in addition to class time. Conducted in Spanish. (Same as Latin American Studies 2409 \{209 \}.)
Prerequisite: Spanish 2305 \{205\} (same as Latin American Studies $2205\{205\}$ ) or permission of the instructor.
$2410\{210\}$ c - IP. Introduction to Hispanic Studies: Essay and Narrative. Every semester. Fall 2013. Nadia V. Celis and Carolyn Wolfenzon. Spring 2014. Nadia V. Celis.
A chronological introduction to the cultural production of the Spanish-speaking world from pre-Columbian times to the present, with particular emphasis on the analysis of essay and narrative. Examines major literary works and movements in their historical and cultural context. (Same as Latin American Studies 2410 \{210\}.)
Prerequisite: Spanish 2305 \{205\} (same as Latin American Studies $2205\{205\}$ ) or permission of the instructor.

2505 \{250\} c - ESD. The Making of a Race: Latino Fictions. Fall 2013. Nadia V. Celis.
Explores the creation, representation, and marketing of U.S. Latino/a identities in American literature and popular culture from the 1960s. Focuses on the experience of artists and writers of Puerto Rican, Cuban, and Dominican origin; their negotiations with notions of race, class,
gender, and sexuality in the United States; and their role in the struggle for social rights, in cultural translation, and in the marketing of ethnic identities, as portrayed in a variety of works ranging from movies and songs to poetry and narrative. Authors include Pietri, Blades, Álvarez, Hijuelos, Braschi, Ovejas, Díaz, and Quiñones. Readings and writing in English, discussions in Spanish. Spanish speaking skills required. (Same as English $2570\{250\}$ and Latin American Studies 2005 \{250\}.)

3000-3099 \{301-309\}. Topics in Hispanic Cultures. Every year. The Department.
Designed to provide advanced students with an understanding of cultural developments and debates in specific regions of the Spanish-speaking world. Conducted in Spanish.

3001 \{301\} c. Contemporary Spain. Spring 2014. Elena Cueto Asín.
A study of contemporary Spain through the analysis of a wide array of texts (essay, press, film, advertisement, music, etc.), aimed at understanding the complexities of a society and culture as determined by geographical, linguistic, and ethnic diversity, and by forces of history and tradition vis-à-vis modernity and political change. Conducted in Spanish.
Prerequisite: Spanish 2409 \{209\} (same as Latin American Studies 2409 \{209\}) or $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ).
[3004 \{304\} c. Dress and Body Politics in Latin America. (Same as Latin American Studies 3204 \{304\}.)]
3005 \{305\} c - ESD. The Making of a Race: Latino Fictions. Fall 2013. Nadia V. Celis.
Explores the creation, representation, and marketing of U.S. Latino/a identities in American literature and popular culture from the 1960s. Focuses on the experience of artists and writers of Puerto Rican, Cuban, and Dominican origin; their negotiations with notions of race, class, gender, and sexuality in the United States; and their role in the struggle for social rights, in cultural translation, and in the marketing of ethnic identities, as portrayed in a variety of works ranging from movies and songs to poetry and narrative. Authors include Pietri, Blades, Álvarez, Hijuelos, Braschi, Ovejas, Díaz, and Quiñones. Readings in English, discussions and writing in Spanish. (Same as English 2571 \{221\} and Latin American Studies 3005 \{305\}.)

Prerequisite: Spanish 2409 \{209\} (same as Latin American Studies 2409 \{209\}) or $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ).

3100-3999 \{310-349\}. Topics in Hispanic Literary and Cultural Studies. Every year. The Department.

Designed to provide advanced students with the opportunity to deepen the study of specific aspects of the cultural production from the Spanish-speaking world with particular emphasis on literary analysis. Conducted in Spanish.
[3117 \{317\} c. Almodóvar, Before and After: Reading Spanish Film.]
[3127 \{327\} c. Reading Spanish Film.]
[3201 \{321\} c. Andean Modernities. (Same as Latin American Studies 3201 \{330\}.)]
[ 3218 \{318\} c. A Journey around Macondo: García Márquez and His Contemporaries. (Same as Latin American Studies 3218 \{318\}.]
[3220 \{320\} c. Beyond the Postcard: The Hispanic Caribbean. (Same as Africana Studies $3320\{320\}$ and Latin American Studies 3220 \{320\}.)]
[3224 \{324\} c. Twentieth-Century Spanish Theater.]
[3229 \{329\} c. Short Cuts: The Latin American Nouvelle. (Same as Latin American Studies $3229\{329\})$.
[3236 \{336\} c. Reading Images: Intersections of Art, Film, and Literature in
Contemporary Latin America. (Same as Latin American Studies 3236 \{336\}.)]
3237 \{337\} c. Hispanic Short Story. Fall 2013. Gustavo Faverón Patriau.
An investigation of the short story as a literary genre, beginning in the nineteenth century, involving discussion of its aesthetics, as well as its political, social, and cultural ramifications in the Spanish-speaking world. Authors include Pardo Bazán, Echevarría, Borges, Cortázar, García Márquez, Ferré, and others. (Same as Latin American Studies 3237 \{337\}.)

Prerequisite: Two of the following: Spanish $2409\{209\}$ (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.
[3243 \{343\} c. Imaginary Cities/Real Cities in Latin America. (Same as Latin American Studies 3243 \{343\}.)]
[ 3244 \{344\} c. Bad Girls on Stage in Early Modern Spain and Spanish America. (Same as Gender and Women's Studies 3001 \{344\} and Latin American Studies 3244 \{344\}.)]

3245 \{345\} c. Ecological Thought in Latin American Literature. Fall 2013. Enrique Yepes.
Explores how the radical interconnectedness postulated by ecological thinking can be read in Latin American narrative, essay, film, and poetry from the 1920s to the present. Includes a review of cultural ecology as well as an overview of environmental history and activism in the region. (Same as Environmental Studies 2485 \{285\} and Latin American Studies 3245 \{345\}.)]
Prerequisite: Two of the following: Spanish $2409\{209\}$ (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.

3246 \{346\} c. Dressing and Undressing in Early Modern Spain. Fall 2013. Margaret Boyle.
Focuses on the literal and metaphorical practices of "dressing" and "undressing" as depicted in the literature of Early Modern Spain. Considers how these practices relate to the (de)construction of Gender and Empire throughout the period. What does dress have to do with identity and power? What might nakedness reveal about ideal and defective bodies? These questions will be enriched through exploration of a series of images in collaboration with the Bowdoin College Museum of Art. Authors considered during the semester include Fernando de Rojas, Miguel de Cervantes, María de Zayas, Teresa de Jesús, Tirso de Molina, and Ana Caro. (Same as Gender and Women's Studies 3316 \{316\}.)

Prerequisite: Two of the following: Spanish $2409\{209\}$ (same as Latin American Studies 2409 $\{209\}$ ), $2410\{210\}$ (same as Latin American Studies $2410\{210\}$ ), $3200\{310\}$ or higher; or permission of the instructor.
[3247 \{347\} c. Translating Cultures. (Same as Latin American Studies 3247 \{347\}.)]
4000-4003 \{401-404\} c. Independent Study in Spanish. The Department.
4029 \{405\} c. Collaborative Study in Spanish. The Department.
4050-4051 c. Honors Project in Spanish. The Department.

# RUSSIAN 

Raymond H. Miller, Department Chair
Kate Flaherty, Department Coordinator
Associate Professor: Raymond H. Miller
Visiting Faculty: Michael Klimov
Fellow: Kristina Toland

## Requirements for the Major in Russian Language and Literature

The Russian major consists of ten courses (eleven for honors). These include Russian 1101 $\{101\}, 1102\{102\}, 2203\{203\}$, and $2204\{204\}$; four courses in Russian higher than Russian $2204\{204\}$; and two approved courses in either Russian literature in translation or Eurasian/ East European culture, or approved related courses in government, history, or economics (e.g., History 2108 \{218\}, The History of Russia, 1825-1936).

## Interdisciplinary Major

The department participates in an interdisciplinary major in Eurasian and East European studies. See pages 218-219.

## Study Abroad

Students are encouraged to spend at least one semester in Russia. There are several approved Russian-language programs in Moscow, St. Petersburg, Irkutsk, and other cities that are open to all students who have taken the equivalent of two or three years of Russian. Programs should be discussed with the Russian department. Students returning from study abroad will be expected to take two courses in the department unless exceptions are granted by the chair. Two of the four semester credits from a one-semester study abroad program may be counted toward both the Eurasian and East European major and the Russian major; four credits may be counted toward a Russian major from a year-long program. Students who wish to transfer credit from summer study abroad should gain approval of their plans in advance; refer to Transfer of Credit from Other Institutions, pages 33-34.

## Advanced Independent Study

This is an option intended for students who wish to work on honors projects or who have taken advantage of all the available regular course offerings and wish to work more closely on a particular topic already studied. Independent study is not an alternative to regular course work. Application should be made to a member of the department prior to the semester in which the project is to be undertaken and must involve a specific proposal in an area in which the student can already demonstrate basic knowledge. Two semesters of advanced independent studies are required for honors in Russian. Petition for an honors project must be made in the spring of the junior year.

## Requirements for the Minor in Russian

The minor consists of seven courses (including the first two years of Russian).

## Courses Taught in English Translation

The department offers courses in English that focus on Russian history, literature, and culture. These may be taken by non-majors and include a series of 200 -level courses: Russian 2220-2251 \{220-251\}.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1022 \{22\} c. "It Happens Rarely, Maybe, but It Does Happen"-Fantasy and Satire in East Central Europe. Every other fall. Fall 2014. Raymond Miller.

## Courses in Russian for Majors and Minors

$1101\{101\}$ c. Elementary Russian I. Every fall. Fall 2013. Michael Klimov.
Emphasis on the acquisition of language skills through imitation and repetition of basic language patterns, multimedia material (seeing and making short film clips), the development of facility in speaking through interactive dialogues, and understanding simple Russian. Conversation hour with native speaker.
1102 \{102\} c. Elementary Russian II. Spring 2014. Michael Klimov.
Continuation of Russian 1101 \{101\}. Emphasis on the acquisition of language skills through imitation and repetition of basic language patterns, multimedia material (seeing and making short film clips), the development of facility in speaking through interactive dialogues, and understanding simple Russian. Conversation hour with native speaker.

Prerequisite: Russian 1101 \{101\} or permission of the instructor.
2203 \{203\} c. Intermediate Russian I. Every fall. Fall 2013. Raymond Miller.
A continuation of Russian 1101 \{101\} and 1102 \{102\}. Emphasis on maintaining and improving the student's facility in speaking and understanding normal conversational Russian. Writing and reading skills are also stressed. Conversation hour with native speaker.
Prerequisite: Russian $1102\{102\}$ or permission of the instructor.
2204 \{204\} c. Intermediate Russian II. Spring 2014. Raymond Miller.
A continuation of Russian 2203 \{203\}. Emphasis on maintaining and improving the student's facility in speaking and understanding normal conversational Russian. Writing and reading skills are also stressed. Conversation hour with native speaker.

Prerequisite: Russian 2203 \{203\} or permission of the instructor.
2970-2973 \{291-294\} c. Intermediate Independent Study in Russian. The Department.
Prerequisite: Russian 3055 \{305\} and permission of the instructor.
2999 \{299\} c. Intermediate Collaborative Study in Russian. The Department.
Upon demand, this course may be conducted as a small seminar for several students in areas not covered in the above courses (e.g., the Russian media or intensive language study).

Prerequisite: Russian 3055 \{305\} and permission of the instructor.

3055 \{305\} c. Advanced Reading and Composition in Russian. Fall 2013. Raymond Miller.
Intended to develop the ability to read Russian at a sophisticated level by combining selected language and literature readings, grammar review, and study of Russian word formation. Discussion and reports in Russian. Conversation hour with native speaker.
Prerequisite: Russian $2204\{204\}$ or permission of the instructor.
3077 \{307\} c. Russian Folk Culture. Every other year. Spring 2014. Raymond Miller.
A study of Russian folk culture: folk tales, fairy tales, legends, and traditional oral verse, as well as the development of folk motives in the work of modern writers. Special emphasis on IndoEuropean and Common Slavic background. Reading and discussion in Russian. Short papers.

Prerequisite: Russian 3055 \{305\} or permission of the instructor.
3099 \{309\} c. Nineteenth-Century Russian Literature. Fall 2014. Kristina Toland.
A survey of Russian prose of the nineteenth century. Special attention paid to the development of Russian realism. Writers include Pushkin, Lermontov, Gogol', Turgenev, Dostoevsky, and Tolstoy.
Prerequisite: Russian 3055 \{305\} or permission of the instructor.
$3100\{310\}$ c. Modern Russian Literature. Fall 2013. Kristina Toland.
An introduction to twentieth-century Russian literature from Symbolism to Postmodernism. Reading of poetry by Blok, Akhmatova, Mayakovsky, Evtushenko, and Okudzhava, along with short prose by Zamiatin, Babel, Zoshchenko, Kharms, Shalamov, Aksenov, Shukshin, Petrushevskaya, Tolstaya, Ulitskaya, Sadur, and Pelevin. Close readings of the assigned works are viewed alongside other artistic texts and cultural phenomena, including the bard song, film, conceptual and sots-art, and rock- and pop-music.
Prerequisite: Russian 3055 \{305\} or permission of the instructor.
3166 \{316\} c. Russian Poetry. Spring 2015. The Department.
Examines various nineteenth- and twentieth-century Russian poets, including Pushkin, Lermontov, Blok, and Mayakovsky. Earlier history of Russian verse is also discussed. Includes study of Russian poetics and the cultural-historical context of each poet's work. Reading and discussion are in Russian. Short papers.
Prerequisite: Russian 3055 \{305\} or permission of the instructor.
4000-4003 \{401-404\} c. Advanced Independent Study in Russian. The Department.
Individual research in Russian studies. Major sources should be read in Russian. A twosemester project is necessary for honors in Russian.
Prerequisite: One course in Russian higher than $3055\{305\}$ and permission of the instructor.
4029 \{405\} c. Advanced Collaborative Study in Russian. The Department.
Prerequisite: One course in Russian higher than $3055\{305\}$ and permission of the instructor.
4050-4051 c. Honors Project in Russian. The Department.

## In English Translation

2216 \{216\} c - IP. Birth of the Modern: Romanticism in East-Central Europe, 1790-1848. Spring 2014. Raymond Miller.

Explores the impact of the Romantic movement in Europe east of Germany. Topics and themes include the discovery of national history and folk culture, the cult of the poet and the creation of "national" literatures, Pan-Slavism, and the birth of Romantic nationalism among the Slavic peoples. Special emphasis on the problematic reception of Romanticism in Russia, and the connection there between Romantic literature and the development of the realist novel after 1848. Authors include Alexander Pushkin, Mikhail Lermontov, Nikolai Gogol, Fyodor Dostoevsky, Adam Mickiewicz, and other writers from Serbia, Croatia, Slovenia, and Ukraine.

2218 \{218\} c - IP, VPA. Smashing the Fourth Wall: Russian Theater Arts in the Twentieth and Twenty-First Centuries. Spring 2014. Kristina Toland.

Studies elements of the twentieth- and twenty-first-century Russian and Soviet theater by analyzing the works of canonical writers and important contemporary authors and by considering a range of theatrical ideas and conventions. Highlights various aspects of theater production in relation to the texts read in class in order to clarify the specific purposes of play-writing as a form of fiction presented in performance. Significant emphasis is placed on the study of visual culture as the essential contributing factor in the development of theater arts. Students read plays, watch performances, and examine visual artworks related to stage production. Authors to be read may include Anton Chekhov, Alexander Block, Vladimir Mayakovsky, Nikolai Erdman, Mikhail Bulgakov, Daniil Kharms, Alexandr Vampilov, Liudmila Petryshevskaya, Olga Mukhina, and others. Texts by Vsevolod Meyerhold, Konstantin Stanislavsky, Nikolai Evreinov, and other theater practitioners, theoreticians, and critics are read as well. (Same as Theater 2868 \{218\}.)

## 2219 \{219\} c - IP. Of Men and Monsters: Humanity versus Technology in Modern and Post-Modern Russian Literature. Fall 2013. Kristina Toland.

Asks what it means to be "human" as we examine the aesthetic and ethical consequences of human interactions with technology in Soviet and contemporary Russian culture. Analyzes texts and films that feature humans, robots, man-machine hybrids, and bodily transformations to provide an opportunity to discuss the ways humans interact with each other and to interrogate the values of technological innovations through the figure of the monster. In looking at the relationships between body and technology and body and culture, considers the ways in which alternative embodiments emerge out of particular political and social regimes and ideologies. Additional theoretical texts help to show how the humanist belief in the natural supremacy of the Man has been called into question at specific moments of Russian history.
$2220\{220\}$ c - IP. Nineteenth-Century Russian Literature. Every other fall. Fall 2013. Raymond Miller.

Traces the development of Russian realism and the Russian novel in the context of contemporary intellectual history. Specific topics include the Russian response to Romanticism, the rejection of Romanticism in favor of the "realistic" exposure of Russia's social ills, Russian nationalism and literary Orientalism, the portrayal of women and their role in Russian society, and the reflection of contemporary political controversies in Russian writing. Authors include Pushkin, Gogol', Lermontov, Belinsky, Turgenev, Dostoevsky, and Tolstoy. Russian majors are required to do some reading in Russian.

## 2221 \{221\} c - IP, VPA. Soviet Worker Bees, Revolution, and Red Love in Russian Film. Fall 2014. Kristina Toland.

Explores twentieth-century Russian society through critical analysis of film, art, architecture, music, and literature. Topics include scientific utopias, eternal revolution, individual freedom versus collectivism, conflict between the intelligentsia and the common man, the "new Soviet woman," nationalism, the thaw and double think, stagnation of the 1970s, post-glasnost sexual liberation, and black hole post-soviet film. Works of Eisenstein, Vertov, Pudovkin, Tarkovsky, Kandinsky, Chagall, Mayakovsky, Bulgakov, Pasternak, Brodsky, Akhmatova, Solzhenitsyn, Petrushevskaya, and Tolstaya. Weekly film viewings. Russian majors are required to do some reading in Russian. Note: May be counted toward a minor in film studies. (Same as Gender and Women's Studies 2510 \{220\}.)

2223 \{223\} c. Dostoevsky and the Novel. Spring 2015. Raymond Miller.
Examines Fyodor Dostoevsky's later novels. Studies the author's unique brand of realism ("fantastic realism," "realism of a higher order"), which explores the depths of human psychology and spirituality. Emphasis on the anti-Western, anti-materialist bias of Dostoevsky's quest for meaning in a world growing increasingly unstable, violent, and cynical. Special attention is given to the author's treatment of urban poverty and the place of women in Russian society. (Same as Gender and Women's Studies 2221 \{221\}.)

# Sogiology and Anthropology 

Susan E. Bell, Department Chair<br>Lori A. Brackett, Department Coordinator

Professors: Susan E. Bell, Sara A. Dickey, Susan A. Kaplan, Scott MacEachern, Nancy E. Riley Associate Professor: Krista E. Van Vleet
Assistant Professors: Greg Beckett, Kelly N. Fayard, Marcos F. Lopez, Ingrid A. Nelson
Visiting Faculty: Shaun A. Golding, H. Roy Partridge Jr.
Fellow: Melissa L. Rosario

## Requirements for the Major

In consultation with an advisor, each student plans a major program that will nurture an understanding of society and the human condition, demonstrate how social and cultural knowledge are acquired through research, and enrich his or her general education. On the practical level, a major program prepares the student for graduate study in sociology or anthropology and contributes to pre-professional programs such as law and medicine. It also provides background preparation for careers in urban planning, public policy, the civil service, social work, business or personnel administration, social research, law enforcement and criminal justice, the health professions, journalism, secondary school teaching, and development programs.

A student may choose either of two major programs or two minor programs:
The major in sociology consists of ten courses, including Sociology $1101\{101\}, 2010\{201\}$, $2030\{211\}$, and $3010\{310\}$. One or two of the ten courses may be advanced courses from anthropology (or, if approved by the department chair, from related fields to meet the student's special interests) or off-campus study courses (with departmental approval). In all
cases, at least seven of the courses counted toward the major must be Bowdoin sociology courses. Sociology $2010\{201\}$ should be taken in the sophomore year.

The major in anthropology consists of ten courses including five core courses (Anthropology $1101\{101\}, 1102^{*}, 2010$ or $2020\{201$ or 202$\}, 2030\{203\}, 3010\{310\}$ ) and five electives. One elective must be an advanced course (numbered 3000-3999 \{300-399\}) other than $3010\{310\}$, and one elective must focus on a geographical area. Only one elective below the intermediate level (numbered below $2000\{200\}$ ) will be counted toward the major. One or two of the ten courses may be taken from the advanced offerings in sociology and/or, with departmental approval, from off-campus study programs. In all cases, at least eight of the ten courses must come from offerings of Bowdoin College.

## Requirements for the Minor

The minor in sociology consists of five sociology courses, including Sociology 1101 \{101\}, and four other courses at or above the intermediate level (numbered $2000\{200\}$ or above). One of the elective courses may be from anthropology (at or above $2000\{200\}$ ) or from offcampus study.

The minor in anthropology consists of five anthropology courses, including Anthropology $1101\{101\}$ and $1102^{*}$, and three intermediate or advanced courses (numbered 2000-2969 $\{200-289\}$ and $3000-3999\{300-399\}$ ). One of the elective courses must be an area study course, and one of the courses may be from off-campus study.

For the anthropology major or minor program, one semester of independent study may be counted. For the sociology major program, two semesters of independent study may be counted, while for the minor program one semester may be counted.

* Note that Anthropology 1102 will be taught for the first time in Spring 2014.


## Core Courses

The core courses in sociology ( $1101\{101\}, 2010\{201\}, 2030\{211\}$, and $3010\{310\}$ ) and the core courses in anthropology (1101 \{101\}, 1102, $2010\{201\}, 2030\{203\}$, and $3010\{310\}$ ) must be taken at Bowdoin. Courses that will count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail). In order for a course to fulfill the major or minor requirements in sociology or anthropology, a grade of C- or above must be earned in that course.

## Off-Campus Study

Study away in a demanding academic program can contribute substantially to a major in sociology and anthropology. Students are advised to plan study away for their junior year. A student should complete either the Sociology $2010\{201\}$ or Anthropology $2010\{201\}$ research methods course, depending on their major, before studying away. Students must obtain provisional approval for their study away courses in writing by department faculty before they leave for study away, and then seek final approval upon their return to Bowdoin.

## Departmental Honors

Students distinguishing themselves in either major program may apply for departmental honors. Awarding of the degree with honors will ordinarily be based on grades attained in major courses and a written project (emanating from independent study), and will recognize the ability to work creatively and independently and to synthesize diverse theoretical, methodological, and substantive materials.

## Sociology

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
$1010\{10\}$ b. Racism. Fall 2013. Roy Partridge. (Same as Africana Studies $1010\{10\}$.)

## Introductory, Intermediate, and Advanced Courses

1101 \{101\} b. Introduction to Sociology. Fall 2013. Susan Bell and Shaun Golding. Spring 2014. Ingrid Nelson.

The major perspectives of sociology. Application of the scientific method to sociological theory and to current social issues. Theories ranging from social determinism to free will are considered, including the work of Marx, Weber, Durkheim, Merton, and others. Attention is given to such concepts as role, status, society, culture, institution, personality, social organization, the dynamics of change, the social roots of behavior and attitudes, social control, deviance, socialization, and the dialectical relationship between individual and society.
$2010\{201\}$ b. Introduction to Social Research. Spring 2014. Nancy Riley.
Provides firsthand experience with the specific procedures through which social science knowledge is developed. Emphasizes the interaction between theory and research, and examines the ethics of social research and the uses and abuses of research in policy making. Reading and methodological analysis of a variety of case studies from the sociological literature. Field and laboratory exercises that include observation, interviewing, use of available data (e.g., historical documents, statistical archives, computerized data banks, cultural artifacts), sampling, coding, use of computer, elementary data analysis and interpretation. Lectures, laboratory sessions, and small-group conferences.

Prerequisite: Sociology $1101\{101\}$ or permission of the instructor.
2030 \{211\} b. Classics of Sociological Theory. Fall 2013. Marcos Lopez.
An analysis of selected works by the founders of modern sociology. Particular emphasis is given to understanding differing approaches to sociological analysis through detailed textual interpretation. Works by Marx, Weber, Durkheim, and selected others are read.

Prerequisite: Sociology $1101\{101\}$ or permission of the instructor.
$2206\{206\}$ b - ESD. Sociology of Education. Fall 2013. Ingrid Nelson.
Examines the ways that formal schooling influences individuals and the ways that social structures and processes affect educational institutions. Explores the manifest and latent functions of education in modern society; the role education plays in stratification and social reproduction; the relationship between education and cultural capital; the dynamics of race, class, and gender in education; and other topics. (Same as Education 2206 \{206\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}, and a course in sociology numbered 2000-2969 \{200-289\}.
$2208\{208\}$ b. Race and Ethnicity. Fall 2013. Ingrid Nelson.
The social and cultural meaning of race and ethnicity, with emphasis on the politics of events and processes in contemporary America. Analysis of the causes and consequences of prejudice and discrimination. Examination of the relationships between race and class. Comparisons among racial and ethnic minorities in the United States. (Same as Africana

Studies 2208 \{208\} and Latin American Studies 2708 \{278\}.)
Prerequisite: Sociology 1101 \{101\}, Africana Studies 1101 \{101\}, or Anthropology 1101 $\{101\}$, or permission of the instructor.

## $2220\{220\}$ b - ESD. "The Wire": Race, Class, Gender, and the Urban Crisis. Spring 2015. Brian Purnell.

Postwar U.S. cities were considered social, economic, political, and cultural zones of "crisis." African Americans-their families, gender relations; their relationship to urban political economy, politics, and culture-were at the center of this discourse. Using David Simon's epic series, The Wire, as a critical source on postindustrial urban life, politics, conflict, and economics, covers the origins of the "urban crisis," the rise of an "underclass" theory of urban class relations, the evolution of the urban "underground economy," and the ways the "urban crisis" shaped depictions of African Americans in American popular culture. (Same as Africana Studies $2220\{220\}$ and Gender and Women's Studies 2222 \{222\}.)

Prerequisite: One of the following: Africana Studies 1101 \{101\}, Education 1101 \{101\}, Gender and Women's Studies $1101\{101\}$, or Sociology $1101\{101\}$, or permission of the instructor.

2221 \{221\} b. Environmental Sociology. Spring 2014. Shaun Golding.
Applies sociological insights to investigating the ways that humans shape and are shaped by their ecological surroundings. Introduces theories and concepts for exploring how Western society and more specifically contemporary American society interact with nature. Reviews central academic questions, including social constructions of nature and perceptions of ecological risks, and drawing from complementary readings and student-led dialogue, examines in greater depth ongoing struggles over conservation, sustainability, development, and social justice. (Same as Environmental Studies 2334 \{221\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.
$2222\{222\}$ b - ESD. Introduction to Human Population. Fall 2013. Nancy Riley.
An introduction to the major issues in the study of population. Focuses on the social aspects of the demographic processes of fertility, mortality, and migration. Also examines population change in Western Europe historically, recent demographic changes in Third World countries, population policy, and the social and environmental causes and implications of changes in births, deaths, and migration. (Same as Environmental Studies 2332 \{222\} and Gender and Women's Studies 2224 \{224\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.
2224 \{224\} b - IP. Global Health Matters. Spring 2014. Susan Bell.
Introduces students to international health, healing, and medicine from individual experiences in local contexts to global practices. Locates health and health care within particular cultural, social, historical, and political circumstances. How do these diverse forces shape the organization of healthcare providers and systems of health care delivery? How do these forces influence people's symptoms, health beliefs, utilization of healthcare, and interactions with healthcare providers? How are local practices of health and healthcare linked to large-scale social and economic structures? Topics include structural violence; global pharmaceuticals; the commodification of bodies, organ trafficking, and organ transplantation; pregnancy and reproduction.

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.
$2240\{240\}$ b - ESD. Social Class in Popular Culture. Fall 2013. Shaun Golding.
In contemporary American society, we are surrounded by imagery that reflects and reinforces hierarchical divisions amongst us. Applies sociological theories of class in examining artifacts of popular culture that emphasize these social divisions. Drawing from popular television, film, and literature, pursues an academic understanding of how social class is portrayed in and projected upon society and contemplates explanations and repercussions of those processes. Requires periodic and mandatory evening film viewings.

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}.
[2244 \{244\} b - ESD. Migration, Work, and Inequality in the Global Economy.]
[2250 \{250\} b - ESD. Epidemiology: Principles and Practices.]
[2265 \{265\} b. Gender and Family in East Asia. (Same as Asian Studies 2101 \{264\} and Gender and Women's Studies 2265 \{265\}.)]

2266 \{266\} - ESD. Asian America: History, Society, Literature. Fall 2013. Connie Chiang, Belinda Kong, and Nancy Riley.

Focuses on Asian American experiences from an interdisciplinary perspective, including history, English, Asian studies, and sociology. Examines major issues in the experience of Asian Americans including immigration, the politics of racial/ethnic formation and identity, the political and economic forces that have shaped the lives of Asians in the United States, historical experiences and influences on today's situation, and ways that Asian Americans have resisted and accommodated these influences. Uses a variety of lenses to gain critical perspective, including history, social relations and practices, and cultural production. (Same as Asian Studies 2805 \{251\}, English 2757 \{275\}, and History 2162 \{268\}.)
[2340 \{234\} b - ESD. Tractors, Chainsaws, Windmills, and Cul-de-Sacs: Natural Resource-Based Development in Our Backyard. (Same as Environmental Studies 2340 \{234\}.)]
$2370\{237\}$ b. Immigration and the Politics of Exclusion. Fall 2013. Marcos Lopez.
The United States, like other nations in the global north, relies on immigrants. Looks at comparative lessons in global immigration to understand the political, economic, and social causes of migration-the politics of immigrant inclusion/exclusion-and the making of diaspora communities. Specific topics will include: the politics of citizenship and the condition of illegality; the global migrant workforce; and how class, gender, race, and sexuality influence the migrant experience. (Same as Latin American Studies 2746 \{246\}.)

Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}, or permission of the instructor.
[2519 \{219\} b - ESD. Sociology of Gender. (Same as Gender and Women's Studies 2208 \{216\}.)]
[2575 \{275\} b - ESD. Cultural Encounters with/in Hawai i.]
2970-2973 \{291-294\} b. Intermediate Independent Study in Sociology. The Department.
2999 \{299\} b. Intermediate Collaborative Study in Sociology. The Department.
$3010\{310\}$ b. Advanced Seminar: Current Controversies in Sociology. Spring 2014. Ingrid Nelson and Nancy Riley.

Draws together different theoretical and substantive issues in sociology in the United States, primarily since 1950. Discusses current controversies in the discipline, e.g., quantitative versus qualitative methodologies, micro versus macro perspectives, and pure versus applied work.
Prerequisite: Sociology $2030\{211\}$ or permission of the instructor.
[3116 \{316\} b. Transitions to Adulthood: From Sweet Sixteen to Reality Bites.]

3400 \{314\} b. Big Pharma, Big Medicine, and Technoscience. Fall 2013. Susan Bell.

Explores from a sociological perspective the global circulation of pharmaceuticals and medicine from the 1960s to the present. Begins by looking at how and why more and more problems have become defined in medical terms, usually as illness or disorders, and treated with medical interventions (e.g., hyperactivity, aging, sexual dysfunction, restless legs, shyness, sadness, sleepiness, and wakefulness). Also gives attention to what some call the over-medicalization of some societies and the under-medicalization of others. Considers the growth of the pharmaceutical industry, strategies for regulating the development and distribution of pharmaceuticals nationally and globally, and the role of pharmaceuticals in the medicalization process. Finally, focuses on the coproduction of science and technology in fields such as molecular biology, genetics, transplant medicine, and computer and information sciences. Explores how these technoscientific changes since the 1980s have affected the expansion of medicine, distribution of pharmaceuticals, and the health of populations, and the meaning of health itself. Students will participate in a two-day symposium at Bowdoin organized concurrently with the course.
Prerequisite: Sociology 1101 \{101\} or Anthropology 1101 \{101\}, and a course in sociology numbered 2000-2969 \{200-289\}.
4000-4003 \{401-404\} b. Advanced Independent Study in Sociology. The Department.
$4029\{405\}$ b. Advanced Collaborative Study in Sociology. The Department.
4050-4051 b. Honors Project in Sociology. The Department.

## Anthropology

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
1013 \{13\} b. Beyond Pocahontas: Native American Stereotypes. Spring 2014. Kelly Fayard.
1027 \{27\} b. Understanding Ourselves in the Digital Age. Fall 2013. Melissa Rosario.

## Introductory, Intermediate, and Advanced Courses

$1101\{101\}$ b. Introduction to Cultural Anthropology. Fall 2013. Krista Van Vleet. Spring 2014. Greg Beckett.

Cultural anthropology explores the diversities and commonalities of cultures and societies in an increasingly interconnected world. Introduces students to the significant issues, concepts, theories, and methods in cultural anthropology. Topics may include cultural relativism and ethnocentrism, fieldwork and ethics, symbolism, language, religion and ritual, political and
economic systems, family and kinship, gender, class, ethnicity and race, nationalism and transnationalism, and ethnographic representation and validity.

1102 b. Introduction to Archaeology. Spring 2014. Scott MacEachern.
An introduction to the practice of archaeology as the study of the human past. Introduces students to the methods and theories through which archaeologists use material traces to analyze the behaviors of people, from our earliest tool-making ancestors to the twenty-first century. Topics covered will include the history of archaeology as a professional discipline, the role of theory in archaeological interpretation, and the archaeological examination of ancient economic, social, and ideological systems. Well-known archaeological field projects will be used as source material for the course.
[1138 \{138\} b - ESD, IP. Everyday Life in India and Pakistan. (Same as Asian Studies 1625 \{138\}.)]
$1150\{102\}$ b. Introduction to World Prehistory. Fall 2013. Scott MacEachern.
An introduction to the discipline of archaeology and the studies of human biological and cultural evolution. Among the subjects covered are conflicting theories of human biological evolution, debates over the genetic and cultural bases of human behavior, the expansion of human populations into various ecosystems throughout the world, the domestication of plants and animals, the shift from nomadic to settled village life, and the rise of complex societies and the state.

2010 \{201\} b. Anthropological Research. Fall 2013. Kelly Fayard. Spring 2014. Krista Van Vleet.

Anthropological research methods and perspectives are examined through classic and recent ethnography, statistics and computer literacy, and the student's own fieldwork experience. Topics include ethics, analytical and methodological techniques, the interpretation of data, and the use and misuse of anthropology.

Prerequisite: Anthropology 1101 \{101\}.
2020 \{202\} b. Essentials of Archaeology. Fall 2013. Scott MacEachern.
Introduces students to the methods and concepts that archaeologists use to explore the human past. Shows how concepts from natural science, history, and anthropology help archaeologists investigate past societies, reveal the form and function of ancient cultural remains, and draw inferences about the nature and causes of change in human societies over time. Will include a significant fieldwork component, including excavations on campus.

Prerequisite: Anthropology $1150\{102\}$, or Archaeology 1101 \{101\} (same as Art History $2090\{209\}$ ) or 1102 (same as Art History $2100\{210\}$ ), or permission of the instructor.
$2030\{203\}$ b. History of Anthropological Theory. Fall 2013. Sara Dickey.
An examination of the development of various theoretical approaches to the study of culture and society. Anthropology in the United States, Britain, and France is covered from the nineteenth century to the present. Among those considered are Morgan, Tylor, Durkheim, Boas, Malinowski, Mead, Geertz, and Lévi-Strauss.

Prerequisite: Anthropology 1101 \{101\}.
$2105\{205\}$ c - IP. Who Owns the Past? The Roles of Museums in Preserving and Presenting Culture. Fall 2013. Susan A. Kaplan.

Examines the storied place of museums in the acquisition, preservation, and display of cultural heritage. The past practices of museums are studied with an eye to how they inform present policies. Aims to examine museums' responses when confronting national and ethnic claims to items in museums' permanent collections; the ethical choices involved in deciding what should be exhibited; the impact of politics, conflicts, and war on museum practices; and the alliances between museums, archaeologists, art historians, and anthropologists. Students will benefit from conversations with a number of Bowdoin faculty and staff, as well as a series of guest speakers from other organizations. Selected reading and class discussion are augmented by visits to the college's two museums and other local museums. (Same as Archaeology 2207 \{207\}.)

Prerequisite: One course in anthropology, archaeology, art history, or sociology, numbered 2000-2969 \{200-289\} or permission of the instructor.
[2112 \{213\} b. Fantastic Archaeology.]
[2114 \{214\} b. Politics and Power.]
$2170\{270\}$ b. Changing Cultures and Dynamic Environments. Spring 2014. Susan Kaplan.
Over the last 20,000 years, the Earth's environment has changed in both subtle and dramatic ways. Some changes are attributable to natural processes and variation, some have been triggered by human activities. Referring to anthropological and archaeological studies, and research on past and contemporary local, regional, and global environments, the course examines the complex and diverse relationship between cultures and the Earth's dynamic environment. A previous science course is recommended. (Same as Environmental Studies 2311 \{237\}.)

Prerequisite: Anthropology $1101\{101\}$ or $1150\{102\}$, or permission of the instructor.
2227 \{227\} c - ESD, VPA. Protest Music. Spring 2015. Judith Casselberry.
Focuses on the ways black people have experienced twentieth-century events. Examines social, economic, and political catalysts for processes of protest music production across genres including gospel, blues, folk, soul, funk, rock, reggae, and rap. Analysis of musical and extra-musical elements' style, form, production, lyrics, intent, reception, commodification, mass media, and the Internet. Explores ways in which people experience, identify, and propose solutions to poverty, segregation, oppressive working conditions, incarceration, sexual exploitation, violence, and war. (Same as Africana Studies 2228 \{228\} and Music 2292 \{227\}.)
$2230\{230\}$ b - ESD. Language, Identity, and Power. Spring 2014. Krista Van Vleet.
What place does language have in everyday life? How are identities produced and perceived in personal and social interactions? How is language used to reinforce, challenge, or reconfigure relationships of power? Approaches the study of language as a social and historical reality that emerges in the interactions of individuals. Using examples from a variety of social and cultural contexts, discusses the relationship between language, culture, and thought; structure and agency; language and social inequality; language acquisition and socialization; multilingualism and multiculturalism; verbal art and performance. Considers how aspects of an individual's identity such as gender, race, ethnicity, class, age, and sexual orientation articulate in social and linguistic interactions.

Prerequisite: Anthropology $1101\{101\}$ or Sociology $1101\{101\}$, or permission of the instructor.
$2245\{245\}$ b - ESD, IP. We Are Family: Anthropological Understandings of Kinship. Spring 2014. Kelly Fayard.

Anthropologists have long been fascinated with defining who is related to whom. Students read works by leading anthropologists to gain an understanding of the various ways kinship has been defined in anthropology and in a diversity of cultures. Elucidates various kinship systems throughout the world and explores how anthropologists have worked with the concept of relatedness. Examines contemporary issues and discusses current kinship studies of relatedness and how those apply to new reproductive technologies such as surrogate mothers, in vitro fertilization, the buying and selling of eggs and sperm, and the legal implications of these new ways of having children.

Prerequisite: Anthropology 1101 \{101\} or Sociology $1101\{101\}$, or permission of the instructor.

## [2254 \{254\} b. Understanding Crisis: Anthropological Perspectives on Emergency.]

## 2274 b. The Borderlands of United States Empire: Puerto Rican Identities and

Histories. Spring 2014. Melissa Rosario.
Using Puerto Rico as a case study from which to study borderlands theory, focuses on Puerto Rico's unique political status in history, describing how its relationship to the United States as "foreign in a domestic sense" has shaped Puerto Rican identity and community formation. Topical focus placed on questions of language and representation, migration patterns, and relationships between mainland and island-based populations, as well as the psychological effects of colonialism. Develops students' understanding that borders are both literal and metaphorical, but have real material effects on the unequal treatment of certain groups, even those purported to be part of the same nation-state. (Same as Latin American Studies 2774.)

Prerequisite: Anthropology 1101 \{101\} or Sociology 1101 \{101\}; or permission of the instructor.
[2350 \{235\} b - ESD. Not Just Cowboys and Indians: Examining Native Americans in Film and Media Beyond Hollywood. (Same as Film Studies 2350 \{235\}.)]
[2371 \{277\} b. Children and Youth in Global Perspective. (Same as Latin American Studies 2771 \{277\}.)]
$2449\{249\}$ b - IP. Alienation and Repression: The Figure of the Zombie in Haiti and the United States. Spring 2014. Greg Beckett.

What do monsters tell us about society? Liminal figures have the capacity to reveal underlying social fears and anxieties and to help us think critically about existing systems of oppression and inequality. Explores the deep history of the zombie in Haitian culture and the recent emergence of the figure of the zombie as a popular modern American monster. To contrast the meaning of the zombie in Haiti and the United States, students explore two critical concepts from social theory-Karl Marx's concept of alienation and Sigmund Freud's concept of repression. Students engage substantively with these theories as they explore the place of zombies in oral histories, folktales, travel writing, film, comics, and other imaginative narrative forms. Topics to be discussed include life, death, the body, free will, resistance, exploitation, knowledge, desire, race, gender, and violence.

Prerequisite: Anthropology 1101 \{101\} or $1150\{102\}$, or Sociology 1101 \{101\}; or permission of the instructor.
[2533 \{233\} b - ESD, IP. Peoples and Cultures of Africa. (Same as Africana Studies 2233 \{233\}.)]
[2601 \{232\} b - ESD, IP. Bollywood, Kollywood, and Beyond: Indian Cinema and Society. (Same as Asian Studies 2561 \{247\} and Film Studies 2232 \{232\}.)]
2647 \{248\} b. Activist Voices in India. Fall 2013. Sara Dickey.
Examines contemporary social and political activism in India. Focuses on film, essays, and fiction to investigate the ways that political messages are constructed through different media and for specific audiences. Case studies include activism concerning religious conflict, gender inequalities, gay and lesbian identities, and environmental issues. (Same as Asian Studies 2562 $\{248\}$, Film Studies 2248 \{248\}, and Gender and Women's Studies 2250 \{246\}.)

Prerequisite: Anthropology 1101 \{101\} or Sociology $1101\{101\}$, and one previous course on contemporary South Asian societies from the following: Anthropology 1138 \{138\} (same as Asian Studies 1625 \{138\}); Anthropology 2601 \{232\} (same as Asian Studies 2561 \{247\}); Anthropology 2643 \{243\} (same as Asian Studies 2560 \{232\}); Asian Studies 2501 \{289\} (same as Gender and Women's Studies 2289 \{289\} and Religion 2289 \{289\}); History 1038 $\{26\}$ (same as Asian Studies $1035\{26\}$ ); History 2341 \{282\} (same as Asian Studies 2580 $\{236\}$ ); History $2342\{261\}$ (same as Asian Studies 2581 \{256\}); History 2343 \{263\} (same as Asian Studies $2582\{258\}$ ); History $2344\{280\}$ (same as Asian Studies $2230\{230\}$ ); History 2801 \{259\} (same as Asian Studies $2583\{237\}$ and Gender and Women's Studies $2259\{259\}$ ); History $2809\{241\}$ (same as Asian Studies 2239 \{239\}); Religion 2219 \{219\} (same as Asian Studies $2550\{219\}$ ); Religion 2221 \{221\} (same as Asian Studies 2553 \{241\}); Religion 2222 \{222\} (same as Asian Studies 2554 \{242\}); Sociology 2227 \{227\} (same as Africana Studies $2227\{227\}$ and Asian Studies $2840\{263\}$ ); Sociology $2236\{236\}$ (same as Asian Studies $2570\{233\}$ ); or permission of the instructor.
[2711 \{271\} b. The Caribbean in the Atlantic World. (Same as Latin American Studies 2711 $\{271\}$. )]
[2723 \{224\} b - ESD. Religion and Social Transformation in South America. (Same as Latin American Studies 2724 \{223\}.)]
[2729 \{238\} b - IP. Culture and Power in the Andes. (Same as Latin American Studies 2738 \{238\}.)]
$2840\{240\}$ b - ESD. Contemporary Issues of Native North America. Fall 2013. Kelly Fayard.

Explores contemporary issues within Native American communities to gain a better understanding of legal issues between tribal governments and the Federal government, reservations, and urban Indian populations. Analyzes issues facing contemporary Native American nations, including Indian gaming and casinos, federal recognition and sovereignty, blood quantum and biological race, religious freedom and sacred sites, mascots, and repatriation of human remains and important artifacts. Efforts to reclaim traditional languages, hunting grounds, and arts discussed.

Prerequisite: Anthropology 1101 \{101\}.
2901 b. Archaeology of the Black Atlantic. Spring 2014. Scott MacEachern.
Uses archaeology to explore the experience of Africans and their descendants in the Atlantic World from the fifteenth century onward. Examines archaeological sites in Africa, the New World, and the Atlantic islands that are implicated in the trans-Atlantic slave trade and in
other forms of interaction between African and non-African communities. Particular topics to be explored will include comparisons between archaeological and historical documentation, archaeological evidence for domination and resistance, and the material traces of cultural contacts and hybridity.
Prerequisite: Anthropology $1101\{101\}$ or $1150\{102\}$, or permission of the instructor.
2970-2973 \{291-294\} b. Intermediate Independent Study in Anthropology. The Department.
2999 \{299\} b. Intermediate Collaborative Study in Anthropology. The Department.
$3010\{310\}$ b. Contemporary Issues in Anthropology. Spring 2014. Sara Dickey.
Close readings of recent ethnographies and other materials are used to examine current theoretical and methodological developments and concerns in anthropology.
Prerequisite: Anthropology $1101\{101\}, 1150\{102\}, 2010\{201\}$, and $2030\{203\}$; or permission of the instructor.
$3100\{313\}$ b - ESD, IP. Global Sexualities/Local Desires. Fall 2013. Krista Van Vleet.
Explores the variety of practices, performances, and ideologies of sexuality through a crosscultural perspective. Focusing on contemporary anthropological scholarship on sexuality and gender, asks how Western conceptions of "sexuality," "sex," and "gender" help (or hinder) our understanding of the lives and desires of people in other social and cultural contexts. Topics may include "third gendered" individuals; intersexuality and the naturalization of sex; language and the performance of sexuality; drag; global media and the construction of identity; lesbian and gay families; sex work; AIDS and HIV and health policy; migration, asylum and human rights issues; ethical issues and activism. Ethnographic examples are drawn from United States, Latin America (Brazil, Dominican Republic, Mexico, Argentina, Cuba); Asia (India, Japan, Indonesia) and Oceania (Papua New Guinea); and Africa (Nigeria, South Africa). Presents issues of contemporary significance along with key theoretical perspectives and methodological approaches used by anthropologists. Integrates perspectives on globalization and the intersection of multiple social differences (including class, race, and ethnicity) with discussion of sexuality and gender. Not open to students who have credit for Anthropology $2110\{210\}$ (same as Gay and Lesbian Studies $2110\{210\}$ and Gender and Women's Studies $2210\{210\}$ ). (Same as Gay and Lesbian Studies $3100\{313\}$, Gender and Women's Studies $3100\{313\}$, and Latin American Studies 3711 \{311\}.)

Prerequisite: Anthropology $1101\{101\}$ or Sociology $1101\{101\}$, or permission of the instructor.
[3210 \{321\} b. Animal Planet: Humans and Other Animals. (Same as Environmental Studies $3920\{320\}$. .)
4000-4003 \{401-404\} b. Advanced Independent Study in Anthropology. The Department.
$4029\{405\}$ b. Advanced Collaborative Study in Anthropology. The Department.
4050-4051 b. Honors Project in Anthropology. The Department.

# Theater and Dange 

Paul Sarvis, Department Cbair<br>Noma Petroff, Department Coordinator<br>Professor: Davis R. Robinson<br>Assistant Professors: Charlotte M. Griffin $\dagger$, Abigail Killeen $\dagger$<br>Senior Lecturers: Gwyneth Jones, Paul Sarvis<br>Lecturers: Judy Gailen, Michael Schiff-Verre<br>Visiting Faculty: Nyama McCarthy-Brown, Kathryn Syssoyeva, Sally Wood<br>Laboratory Instructor: Deb Puhl

Students may minor in dance or theater. Although no major is offered in the Department of Theater and Dance, students with special interest may, with faculty advice, self-design a major in conjunction with another academic discipline. More information on student-designed majors may be found on page 20 .

## Interdisciplinary Major

The department participates in an interdisciplinary major in English and theater. See page 217.

## Dange

The dance curriculum provides a coherent course of study through classes in dance technique and repertory, choreography, and dance history, theory, and criticism. The department emphasizes dance's relation to the performing and fine arts and its fundamental connection to the broad liberal arts curriculum. The program's goal is dance literacy and the development of skills important to original work in all fields: keen perception, imaginative problem solving, discipline, and respect for craft.

The department offers technique and repertory classes in ballet and modern dance, the latter term designating a wide spectrum of styles that focus on an inventive, unrestricted approach to movement. Many of these are half-credit courses, offered only on a Credit/D/Fail basisand may be repeated up to four times for credit. Full credit is given to students enrolled in both a technique class and its corresponding repertory class. Attendance at all classes is required. See course descriptions for full details.

## Requirements for the Minor in Dance

The minor consists of five course credits as follows:

- Dance $1102\{101\}$ or 1501 \{140\}
- At least one course from Dance $1103\{103\}, 1211 / 1212\{111 / 112\}, 1221\{121\}$, 2211/2212 \{211/212\}, 2221/2222 \{221/222\}, 2231/2232 \{231/232\} or 3211/3212 $\{311 / 312\}$
- At least one course from Dance $1101\{102\}, 1203\{145\}$ (same as Theater $1203\{145\}$ ), $1302\{130\}$ (same as Theater $1302\{130\}$ ), $2401\{270\}$.
- Two additional courses at the intermediate level or higher (numbered $2000\{200\}$ or higher).

Students must earn a grade of CR (Credit) or C- or better in order to have a course count toward the minor in dance.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
$1010\{10\}$ c. Understanding Theater and Dance: Doing, Viewing, and Reviewing. Fall 2014. The Department. (Same as Theater 1010 \{10\}.)

## Introductory, Intermediate, and Advanced Courses

1101 \{102\} c - VPA. Making Dances. Every year. Fall 2013. Paul Sarvis.
Explores movement invention, organization, and meaning. Problem-solving exercises, improvisations, and studies focus mainly on solo, duet, and trio forms. A video component introduces students-regardless of previous experience in dance-to a wide range of compositional methods and purposes. Includes reading, writing, discussion, attendance at live performances, and-when possible-work with visiting professional artists.
$1102\{101\}$ c - ESD, VPA. Cultural Choreographies: An Introduction to Dance. Fall 2013. Nyama McCarthy-Brown.

Dancing is a fundamental human activity, a mode of communication, and a basic force in social life. Investigates dance and movement in the studio and classroom as aesthetic and cultural phenomena. Explores how dance and movement activities reveal information about cultural norms and values and affect perspectives in our own and other societies. Using ethnographic methods, focuses on how dancing maintains and creates conceptions of one's own body, gender relationships, and personal and community identities. Experiments with dance and movement forms from different cultures and epochs-for example, the hula, New England contradance, classical Indian dance, Balkan kolos, ballet, contact improvisation, and African American dance forms from swing to hip-hop-through readings, performances, workshops in the studio, and field work. (Same as Gender and Women's Studies 1102 \{102\}.)

## $1103\{103\}$ c - ESD, VPA. African American Diasporic Dance: From the Ring Shout to

 Hip-Hop. Spring 2014. Nyama McCarthy-Brown.Combines dance history, embodied research, and performance. Students engage in readings, class discussions, and movement studies that allow them to learn movement techniques from past eras. Students explore connections between cultural values and norms and movement aesthetics, and discover how African American vernacular dance and jazz music influenced jazz forms and American dance throughout the twentieth century (ragtime, swing, hot jazz, and hip-hop). Culminates with a performance in the December Dance Concert. Students meet once a week in a seminar setting to investigate one dance era, such as swing. The next two class meetings take place in a dance studio in order to embody the dance form discussed that week, and include rehearsals. (Same as Africana Studies 1103 \{103\}.)
$1203\{145\}$ c - VPA. Performance and Narrative. Spring 2015. Abigail Killeen.
For millennia, we have organized our fictions, our religions, our histories, and our own lives as narratives. However much the narrative form has been called into question in recent years, it seems we just cannot stop telling each other stories. Examines the particular nexus between narrative and performance: What is narrative? How does it work? What are its limits and its limitations? How do we communicate narrative in performance? Involves both critical inquiry and the creation of performance pieces based in text, dance, movement, and the visual image. (Same as Theater 1203 \{145\}.)

1211 \{111\} c - VPA. Modern I: Technique. Fall 2013. Gwyneth Jones. Spring 2014. The Department.

Classes in modern dance technique include basic exercises to develop dance skills such as balance and musicality. More challenging movement combinations and longer dance sequences build on these exercises. While focusing on the craft of dancing, students develop an appreciation of their own styles and an understanding of the role of craft in the creative process. During the semester, a historical overview of twentieth-century American dance on video is presented. Attendance at all classes is required. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.

1212 \{112\} c - VPA. Modern I: Repertory and Performance. Fall 2013. Gwyneth Jones. Spring 2014. The Department.

Repertory students are required to take Dance $1211\{111\}$ concurrently. Repertory classes provide the chance to learn faculty-choreographed works or reconstructions of historical dances. Class meetings are conducted as rehearsals for performances at the end of the semester: the December Dance Concert, the annual Spring Performance in Pickard Theater, or Museum Pieces at the Bowdoin College Museum of Art in May. Additional rehearsals are scheduled before performances. Attendance at all classes and rehearsals is required. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.
$1221\{121\}$ c - VPA. Ballet I: Technique. Every other year. Fall 2014. Charlotte Griffin.
Introduces the fundamental principles of classical ballet technique as a studio practice and performing art. Includes barre, center, and across-the-floor exercises with an emphasis on anatomical alignment, complex coordination, movement quality, and musicality. Combines dance training with assigned reading and writing, video viewing, performance attendance, and in-class discussion to increase appreciation for and participation in the art form. Ballet $I$ is a one-credit course with a required lab.
$1301\{104\}$ c. Stagecraft. Every year. Fall 2013. Michael Schiff-Verre.
Introduction to the language, theory, and practice of technical theater. Hands-on experience in lighting, scenic and property construction, costuming, and stage management. Considers the possibilities, demands, and limits inherent in different forms of performance and performance spaces, and explores the job roles integral to theater and dance production. Includes forty hours of laboratory work. Grading is Credit/D/Fail. (Same as Theater 1301 \{104\}.)
$1302\{130\}$ c - VPA. Principles of Design. Every year. Fall 2013. Judy Gailen.
An introduction to theatrical design that stimulates students to consider the world of a play, dance, or performance piece from a designer's perspective. Through projects, readings, discussion, and critiques, students explore the fundamental principles of visual design, as they apply to set, lighting, and costume design, as well as text analysis for the designer, and the process of collaboration. Strong emphasis on perceptual, analytical, and communication skills. (Same as Theater 1302 \{130\}.)

1501 \{140\} c - VPA. History of Twentieth-Century Dance. Fall 2014. Paul Sarvis.
Excavates histories of twentieth-century modern dance and ballet by asking aesthetic, philosophical, and social questions. Focuses on dance vocabularies and notions of representation-illusion and authenticity, intention and authorship, changing ideas of the performance space, the countercultural attitude of modernism, and the sociopolitical dimensions of dance performance. These inquiries are introduced by movement exercises in the studio, and elucidated by video viewing, reading, discussion, and writing.

2211 \{211\} c - VPA. Modern II: Technique. Spring 2014. The Department.
A continuation of the processes introduced in Dance 1211 \{111\}. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.

2212 \{212\} c - VPA. Modern II: Repertory and Performance. Spring 2014. The Department.
Intermediate repertory students are required to take Dance $2211\{211\}$ concurrently. A continuation of the principles and practices introduced in Dance $1212\{112\}$. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.
2221 \{221\} c - VPA. Ballet II: Technique. Fall 2013. Nyama McCarthy-Brown.
A continuation of the processes introduced in Dance 1221 \{121\}. Grading is Credit/D/Fail. One-half credit.

Prerequisite: Dance $1221\{121\}$ or permission of the instructor.
$2222\{222\}$ c - VPA. Ballet II: Repertory and Performance. Fall 2013. Nyama McCarthy-Brown.

Repertory students are required to take Dance $2221\{221\}$ concurrently. Repertory classes are an opportunity to learn and perform new choreography or historical reconstructions created by faculty or guests. Class meetings conducted as rehearsals. Additional rehearsals may be required. Attendance at all classes, studio and stage rehearsals, and performances required. Grading is Credit/D/Fail. One-half credit.
2231 \{231\} c - VPA. Jazz II: Technique. Spring 2016. The Department.
Extends students' technical proficiency by increasing practice in jazz dance styles and intricate combinations; students learn dance technique along with the appropriate historical and cultural contexts. Includes vocabulary, and variations of jazz, and focuses on its roots in social dance heavily influenced by African American traditions. Students have the opportunity to embody various jazz styles such as vintage jazz, Broadway jazz, lyrical jazz, and the jazz techniques of Bob Fosse and Luigi. A series of dance exercises and combinations teach jazz isolations, syncopation, musicality, and performance skills. Through this ongoing physical practice, students gain strength, flexibility, endurance, coordination, and style. Includes a performance requirement, and several readings. Attendance at all classes required. Grading is Credit/D/Fail. One-half credit. (Same as Africana Studies 2234 \{235\}.)

Prerequisite: Dance $1211\{111\}$ or $1221\{121\}$, or permission of the instructor.
2232 \{232\} c - VPA. Jazz II: Repertory and Performance. Spring 2016. The Department.
Intermediate repertory students are required to take Dance $2231\{231\}$ (same as Africana Studies $2234\{235\}$ ) concurrently. Attendance at all classes is required. Grading is Credit/D/ Fail. One-half credit. (Same as Africana Studies 2232 \{232\}.)

2401 \{270\} c - VPA. Choreography for Dancers: Invention, Method, and Purpose. Spring 2014. The Department.

Through a vigorous sequence of creative projects, fluent dancers excavate sources and explore methods for making dance. Detailed work on personal movement vocabulary, musicality, and the use of multidimensional space leads to a strong sense of choreographic architecture. Students explore the play between design and accident-communication and open-ended meaning-and irony and gravity. Studio work is supported by video viewing, and readings on dance, philosophy, and other arts.

Prerequisite: Dance 1101 \{102\} or $1102\{101\}$, and two of: Dance $1212\{112\}, 2212\{212\}$, or $3212\{312\}$.
$2402\{250\}$ c - VPA. Theater, Dance, and the Common Good. Spring 2014. The Department.

Theater and dance have a long history of political engagement, social intervention, and community building. Examines the historical precedents for today's "applied" theater and dance practice, including Piscator, Brecht, Boal, Cornerstone Theatre, Judson Dance Theatre, and Yvonne Rainer. Significant time also spent working with local agencies and institutions to create community-based performances addressing social issues such as homelessness, poverty, prejudice, and the environment, among others. (Same as Theater 2402 \{250\}.)
$2502\{240\}$ c - VPA. Performance in the Twenty-First Century: Avant- Garde/Neo AvantGarde. Fall 2013. Kathryn Syssoyeva.

Examines contemporary forms such as live art, neo-cabaret, dance theater, theater of images, new circus, solo performance, and site-specific theater. Hybrid by nature and rebellious in spirit, these practices reject the boundaries and conventions of traditional theater and dance. Yet for all its innovation, contemporary performance has roots deep in the twentieth-century avant-gardes. What, these days, is new about performance? Through readings, film screenings, and our own performance-making, considers the genealogical roots of performance, and investigates the ways twenty-first-century performance is exploring body, mind, technology, social justice, intercultural and transnational aesthetics, and globalism. Assignments include readings, research presentations, written responses, and short-form performance projects. (Same as Theater 2502 \{240\}.)

2970-2973 \{291-294\} c. Intermediate Independent Study in Dance. The Department.
2999 \{299\} c. Intermediate Collaborative Study in Dance. The Department.
3211 \{311\} c - VPA. Modern III: Technique. Fall 2013. Paul Sarvis.
A continuation of the processes introduced in Dance $2211\{211\}$. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.

3212 \{312\} c - VPA. Modern III: Repertory and Performance. Fall 2013. Paul Sarvis.
Intermediate/advanced repertory students are required to take Dance 3211 \{311\} concurrently. A continuation of the principles and practices introduced in Dance $2212\{212\}$. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.
$3301\{340\}$ c. Live Performance and Digital Media. Spring 2015. The Department.
Over the past two decades, digital media has infiltrated live performance to such an extent that it has become almost as indispensable as sets, lights, and costumes. Theater and dance artists have embraced these media as a way to enhance the expressivity and scale of their work, as well as a cultural phenomenon to be critically investigated. Introduces students to sound and video applications such as Garage Band, Final Cut Pro, Motion, and Isadora, and requires them to create performances incorporating these tools. Also contextualizes student projects with theoretical readings and examinations of contemporary performance practitioners. (Same as Theater 3301 \{340\}.)

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater or dance.

3401 \{322\} c. Ensemble Devising: The Art of Collaborative Creation. Fall 2013. Davis Robinson.

Experienced student actors, dancers, and musicians collaborate to devise an original performance event. Immerses students in the practice of devising, from conception and research to writing, staging, and ultimately performing a finished piece. Examines the history of collective creation and the various emphases different artists have brought to that process. In the Fall of 2013, the epic Mahabharata and the 1957 workers' rights musical The Pajama Game will provide source material for in-class projects and the fall theater production. (Same as Theater 3401 \{322\}.)

Prerequisite: One course numbered 1100-1799 \{100-199\} in theater or dance and one course numbered 2000-2799 \{200-289\} in theater or dance.

4000-4003 \{401-404\} c. Advanced Independent Study in Dance. The Department.
4029 \{405\} c. Advanced Collaborative Study in Dance. The Department.

## Theater

The theater program at Bowdoin offers students the opportunity to examine the ways theater can provoke the imagination, tell stories, create community, and challenge assumptions. Courses are offered in performance, theory, history, design, and stagecraft. Emphasis is placed on theater's fundamental connection to the liberal arts curriculum, as well as theater literacy, performance skills, respect for language, and an understanding of social/historical influences on drama. The aim is to develop imaginative theater practitioners who collaboratively solve problems of form and content with a passionate desire to express the human condition on stage.

## Requirements for the Minor in Theater

The minor consists of five courses as follows:

- Two courses from Theater $1101\{101\}, 1201\{120\}, 1202\{150\}$ (same as Dance 1202 $\{150\}$ ), $1203\{145\}$ (same as Dance $1203\{145\}$ ), $1301\{104\}$ (same as Dance 1301 $\{104\}$ ), $1302\{130\}$ (same as Dance $1302\{130\}$ )
- Two courses from Theater $2201\{220\}, 2202\{225\}, 2203\{270\}, 2401\{260\}$ (same as English $2850\{214\}$ ), $2402\{250\}$ (same as Dance $2402\{250\}$ ), $2501\{201\}, 2502\{240\}$ (same as Dance $2502\{240\}$ ), $3201\{320\}, 3202\{321\}, 3204\{323\}, 3301\{340\}$ (same as Dance 3301 \{340\}), 3401 \{322\}, $3402\{305\}$
- And one additional course in theater or dance.

Students must earn a grade of CR (Credit) or C- or better in order to have a course count toward the minor in theater.

## First-Year Seminars

For a full description of first-year seminars, see pages 157-168.
$1010\{10\}$ c. Understanding Theater and Dance: Doing, Viewing, and Reviewing. Fall 2014. The Department. (Same as Dance 1010 \{10\}.)

## Introductory, Intermediate, and Advanced Courses

1101 \{101\} c - VPA. Making Theater. Every year. Spring 2015. The Department.
An active introductory exploration of the nature of theater: how to think about it, how to look at it, how to make it. Students examine a range of theatrical ideas and conventions, see and reflect on live performance, and experience different approaches to making work. Designers, directors, performers, and scholars visit the class to broaden perspective and instigate experiments. Students work collaboratively throughout the semester to develop and perform original work.

1201 \{120\} c - VPA. Acting I. Every semester. Fall 2013. Sally Wood.
Introduces students to the intellectual, vocal, physical, and emotional challenge of the acting process. Students examine theatrical texts and practice the art of translating intellectual analysis into embodied performance. Fundamentals of text analysis are learned and practiced, preparing students for the more complex performance work required in all sections of Acting II.
$1202\{150\}$ c - VPA. Improvisation. Every other year. Spring 2015. Davis Robinson.
Improvisation is a fundamental tool used by dancers, musicians, actors, writers, and other artists to explore the language of a medium and to develop new work. An interdisciplinary introduction to some of the primary forms of improvisation used in dance and theater. Content includes theater games, narrative exercises, contact improvisation, and choreographic structures.
$1203\{145\}$ c - VPA. Performance and Narrative. Spring 2015. Abigail Killeen.
For millennia, we have organized our fictions, our religions, our histories, and our own lives as narratives. However much the narrative form has been called into question in recent years, it seems we just cannot stop telling each other stories. Examines the particular nexus between narrative and performance: What is narrative? How does it work? What are its limits and its limitations? How do we communicate narrative in performance? Involves both critical inquiry and the creation of performance pieces based in text, dance, movement, and the visual image. (Same as Dance 1203 \{145\}.)

1301 \{104\} c. Stagecraft. Every year. Fall 2013. Michael Schiff-Verre.
Introduction to the language, theory, and practice of technical theater. Hands-on experience in lighting, scenic and property construction, costuming, and stage management. Considers the possibilities, demands, and limits inherent in different forms of performance and performance spaces, and explores the job roles integral to theater and dance production. Includes forty hours of laboratory work. Grading is Credit/D/Fail. (Same as Dance 1301 \{104\}.)
$1302\{130\}$ c - VPA. Principles of Design. Every year. Fall 2013. Judy Gailen.
An introduction to theatrical design that stimulates students to consider the world of a play, dance, or performance piece from a designer's perspective. Through projects, readings, discussion, and critiques, students explore the fundamental principles of visual design, as they apply to set, lighting, and costume design, as well as text analysis for the designer, and the process of collaboration. Strong emphasis on perceptual, analytical, and communication skills. (Same as Dance 1302 \{130\}.)
$1700\{195\}$ c - VPA. Production and Performance. Every semester. The Department.
Engagement in the presentation of a full-length work for public performance with a faculty director or choreographer. Areas of concentration within the production may include design, including set, light, sound, or costume; rehearsal and performance of roles; service as assistant director or stage manager. In addition to fulfilling specific production responsibilities, students meet weekly to synthesize work. Students gain admission to Theater $1700\{195\}$ either through audition (performers) or through advance consultation (designers, stage managers, and assistant directors). Students register for Theater $1700\{195\}$ during the add/drop period at the beginning of each semester. Students are required to commit a minimum of six hours a week to rehearsal and production responsibilities over a period of seven to twelve weeks; specific time commitments depend upon the role the student is assuming in the production and the production schedule. Grading is Credit/D/Fail. One-half credit. May be repeated a maximum of four times for credit, earning a maximum of two credits.

Prerequisite: Permission of the instructor.
1806 \{106\} c. Introduction to Drama. Spring 2014. William Watterson.
Traces the development of dramatic form, character, and style from classical Greece through the Renaissance and Enlightenment to contemporary America and Africa. Explores the evolution of plot design, with special attention to the politics of playing, the shifting strategies of representing human agency, and contemporary relationships between the theater and a variety of forms of mass media. Authors may include Sophocles, Aristophanes, Marlowe, Shakespeare, Dryden, Ibsen, Wilde, Beckett, Mamet, and Churchill. (Same as English 1106 \{106\}.)

2201 \{220\} c - VPA. Acting II: Voice and Text. Every year. Fall 2013. Sally Wood.
An intermediate acting course focused on the physical discipline and intellectual challenge of pursuing theatrical objectives through language. Traditional and experimental vocal training techniques are introduced and practiced. Students are also challenged to investigate character development through vocal choices, to learn how to communicate heightened emotion safely and effectively, and to learn how to develop a rehearsal methodology for stage dialects. This course, along with Theater $2202\{225\}$, Acting II: Physical Theater, is part of a two-semester course series. Theater $2201\{220\}$ and $2202\{225\}$ may be taken individually or in any order.

Prerequisite: One course numbered 1100-1799 \{100-199\} in theater.
2202 \{225\} c - VPA. Acting II: Physical Theater. Every year. Spring 2014. Davis Robinson.
Extends the principles of Acting I through a full semester of rigorous physical acting work focused on presence, energy, relaxation, alignment, and emotional freedom. Develops and brings the entire body to the act of being on stage through highly structured individual exercises and ensemble-oriented improvisational work. Scene work is explored through the movement-based acting disciplines of Lecoq, Grotowski, Meyerhold, or Viewpoints. Contemporary physical theater makers Théâtre de Complicité, Mabou Mines, SITI company, and Frantic Assembly are discussed. This course, along with Theater 2201 \{220\}, Acting II: Voice and Text, is part of a two-semester course series. Theater $2201\{220\}$ and $2202\{225\}$ may be taken individually or in any order.
Prerequisite: One course numbered 1100-1799 \{100-199\} in theater.

2203 \{270\} c - VPA. Directing. Every year. Fall 2014. Davis Robinson.
Introduces students to the major principles of play direction, including conceiving a production, script analysis, staging, casting, and rehearsing with actors. Students actively engage directing theories and techniques through collaborative class projects, and complete the course by conceiving, casting, rehearsing, and presenting short plays of their choosing. A final research and rehearsal portfolio is required.

Prerequisite: One course numbered 1100-1799 \{100-199\} in theater or dance.
$2401\{260\}$ c - VPA. Playwriting. Fall 2015. The Department.
A writing workshop for contemporary performance that includes introductory exercises in writing dialogue, scenes, and solo performance texts, then moves to the writing (and rewriting) of a short play. Students read plays and performance scripts, considering how writers use image, action, speech, and silence; how they structure plays and performance pieces; and how they approach character and plot. (Same as English 2850 \{214\}.)

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater or dance, or permission of the instructor.
$2402\{250\}$ c - VPA. Theater, Dance, and the Common Good. Spring 2014. The Department.

Theater and dance have a long history of political engagement, social intervention, and community building. Examines the historical precedents for today's "applied" theater and dance practice, including Piscator, Brecht, Boal, Cornerstone Theatre, Judson Dance Theatre, and Yvonne Rainer. Significant time also spent working with local agencies and institutions to create community-based performances addressing social issues such as homelessness, poverty, prejudice, and the environment, among others. (Same as Dance 2402 \{250\}.)

2501 \{201\} c - VPA. Theater History and Theory: Theatrical Metamorphoses-Histories and Innovations. Every other year. Fall 2013. Kathryn Syssoyeva.
Explores "theater history" as both a living source and a language. Considers how innovative directors, performers, playwrights, choreographers, and designers of the modern and contemporary era have transformed the "old" to invent the "new." Taking five high points of the theatrical past as a starting point-the theaters of Ancient Greece, sixteenth-century Italian Commedia dell'Arte, Shakespeare in Elizabethan England, Molière in seventeenthcentury France, and of the Kabuki troupes of seventeenth-century Japan-students trace the metamorphoses of historic tales, texts, and forms of performance as they pass through the hands of theater and dance artists of successive eras. Assignments include readings, research presentations, written responses, and short-form performance projects. Students who previously took Theater 201 may also take this new version of the course for credit in Fall 2013.
$2502\{240\}$ c - VPA. Performance in the Twenty-First Century: Avant- Garde/Neo AvantGarde. Fall 2013. Kathryn Syssoyeva.
Examines contemporary forms such as live art, neo-cabaret, dance theater, theater of images, new circus, solo performance, and site-specific theater. Hybrid by nature and rebellious in spirit, these practices reject the boundaries and conventions of traditional theater and dance. Yet for all its innovation, contemporary performance has roots deep in the twentieth-century avant-gardes. What, these days, is new about performance? Through readings, film screenings, and our own performance-making, considers the genealogical roots of performance, and
investigates the ways twenty-first-century performance is exploring body, mind, technology, social justice, intercultural and transnational aesthetics, and globalism. Assignments include readings, research presentations, written responses, and short-form performance projects. (Same as Dance 2502 \{240\}.)
2810 \{210\} c. Shakespeare's Comedies and Romances. Fall 2013. William Watterson.
Examines A Midsummer Night's Dream, The Merchant of Venice, Twelfth Night, As You Like It, The Winter's Tale, and The Tempest in light of Renaissance genre theory. Note: This course fulfills the pre-1800 literature requirement for English majors. (Same as English 2150 \{210\}.)

Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2811 \{211\} c. Shakespeare’s Tragedies and Roman Plays. Spring 2014. William Watterson.
Examines Hamlet, Othello, Macbeth, King Lear, Julius Caesar, Antony and Cleopatra, and Coriolanus in light of recent critical thought. Special attention is given to psychoanalysis, new historicism, and genre theory. Note: This course fulfills the pre-1800 literature requirement for English majors. (Same as English 2151 \{211\}.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2823 \{223\} c - VPA. English Renaissance Drama. Fall 2013. Aaron Kitch.
Explores the explosion of popular drama in London following the construction of the first permanent theaters in the 1560 s. Pays special attention to the forms of drama that audiences liked best-those portraying revenge, marriage, middle-class ascendancy, and adultery. Topics include the cultural space of the theater, the structure of playing companies, and the cultivation of blank verse as a vehicle for theatrical expression. Students will master the styles of different playwrights, examine the topography of the Globe theater, and try out different staging techniques. Authors include Shakespeare, Thomas Kyd, Christopher Marlowe, Ben Jonson, and Thomas Middleton. Note: This course fulfills the pre-1800 literature requirement for English majors. (Same as English 2200 \{223\}.)
Prerequisite: One first-year seminar or course numbered 1100-1999 \{100-199\} in English.
2868 \{218\} c - IP, VPA. Smashing the Fourth Wall: Russian Theater Arts in the Twentieth and Twenty-First Centuries. Spring 2014. Kristina Toland.

Studies elements of the twentieth- and twenty-first-century Russian and Soviet theater by analyzing the works of canonical writers and important contemporary authors and by considering a range of theatrical ideas and conventions. Highlights various aspects of theater production in relation to the texts read in class in order to clarify the specific purposes of play-writing as a form of fiction presented in performance. Significant emphasis is placed on the study of visual culture as the essential contributing factor in the development of theater arts. Students read plays, watch performances, and examine visual artworks related to stage production. Authors to be read may include Anton Chekhov, Alexander Block, Vladimir Mayakovsky, Nikolai Erdman, Mikhail Bulgakov, Daniil Kharms, Alexandr Vampilov, Liudmila Petryshevskaya, Olga Mukhina, and others. Texts by Vsevolod Meyerhold, Konstantin Stanislavsky, Nikolai Evreinov, and other theater practitioners, theoreticians, and critics are read as well. (Same as Russian 2218 \{218\}.)

2970-2973 \{291-294\} c. Intermediate Independent Study in Theater. The Department.
2999 \{299\} c. Intermediate Collaborative Study in Theater. The Department.
$3201\{320\}$ c. Theater Styles. Every third year. Fall 2015. Davis Robinson.
An advanced acting class that explores issues of style. What is Tragedy? Farce? Melodrama? Commedia? Realism? The Absurd? Through research, analysis, and scene work in class, students become familiar with a range of theatrical idioms. Emphasis is placed on understanding the social/cultural needs that give rise to a particular style, and the way in which style is used in contemporary theater to support or subvert a text.

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater and one additional course in theater or dance, preferably at the $2000\{200\}$ level.
$3202\{321\}$ c. Comedy in Performance. Every third year. Fall 2014. Davis Robinson.
Looks at several facets of comedy on stage, from its origins in Greek and Roman theater to contemporary comic forms. Theory is combined with practical exercises in clowning, satire, physical comedy, wit, timing, phrasing, and partner work to develop a comic vocabulary for interpreting both scripted and original work. Students work in solos, duets, and groups to create final performance projects that are presented to the public at the end of the semester.

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater and one additional course in theater or dance, preferably at the $2000\{200\}$ level.

3204 \{323\} c. Acting Shakespeare. Spring 2014. Sally Wood.
An advanced-level acting course dedicated to the study of Shakespeare toward its original purpose: performance. Building on the skill sets learned in Acting I and both sections of Acting II, students combine advanced text and rhetorical analysis with rigorous physical and vocal work designed to bring the text off the page and into performance. May be repeated for credit.

Prerequisite: Theater $1201\{120\}$, and Theater $2201\{220\}$ or $2202\{225\}$, or permission of the instructor.
$3301\{340\}$ c. Live Performance and Digital Media. Spring 2015. The Department.
Over the past two decades, digital media has infiltrated live performance to such an extent that it has become almost as indispensable as sets, lights, and costumes. Theater and dance artists have embraced these media as a way to enhance the expressivity and scale of their work, as well as a cultural phenomenon to be critically investigated. Introduces students to sound and video applications such as Garage Band, Final Cut Pro, Motion, and Isadora, and requires them to create performances incorporating these tools. Also contextualizes student projects with theoretical readings and examinations of contemporary performance practitioners. (Same as Dance 3301 \{340\}.)

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater or dance.
3401 \{322\} c. Ensemble Devising: The Art of Collaborative Creation. Fall 2013. Davis Robinson.

Experienced student actors, dancers, and musicians collaborate to devise an original performance event. Immerses students in the practice of devising, from conception and research to writing, staging, and ultimately performing a finished piece. Examines the history of collective creation and the various emphases different artists have brought to that process. In the Fall of 2013, the epic Mahabharata and the 1957 workers' rights musical The Pajama Game will provide source material for in-class projects and the fall theater production. (Same as Dance 3401 \{322\}.)

## Courses of Instruation

Prerequisite: One course numbered 1100-1799 \{100-199\} in theater or dance and one course numbered 2000-2799 \{200-289\} in theater or dance.

3402 \{305\} c. Theater Studio. Every third year. Spring 2014. Davis Robinson.
A senior theater seminar focusing on independent work. Advanced students creating capstone projects in playwriting, directing, acting, and design meet weekly as a group to critique, discuss, and present their work. Final performances given at the end of the semester.

Prerequisite: One course numbered 1100-1999 \{100-199\} in theater and one additional course in theater or dance, preferably at the $2000\{200\}$ level.
4000-4003 \{401-404\} c. Advanced Independent Study in Theater. The Department. 4029 \{405\} c. Advanced Collaborative Study in Theater. The Department.

## Educational Resourges and Fagilities

## Bowdoin College Library

Bowdoin's library-the intellectual heart of the College-provides a gateway to the world of information and ideas, helps students succeed academically, and supports teaching and research. In addition to notable print and manuscript collections, historically recognized as among Bowdoin's hallmarks of excellence, the Library offers a wealth of electronic resources and offers instructional programs in their use.

The Library's website (library.bowdoin.edu) is the portal to the combined Colby, Bates, and Bowdoin library catalog (CBBcat), rich collections of electronic and print resources, and useful digital research and discovery tools. The Library's collections, developed over a period of 200 years, exceed one million volumes and include more than 40,000 print and electronic periodical and newspaper subscriptions, 360 online indexes and databases, as well as e-books, audiovisual items, maps, photographs, a growing repository of born-digital content, and over 5,300 linear feet of manuscripts and archival records.
Librarians and faculty partner to encourage the use of scholarly resources throughout the curriculum and to teach students to identify, select, and evaluate information for course work and independent scholarship. All students receive information literacy instruction in their firstyear seminars, and librarians provide personalized assistance in using library resources.
Interlibrary loan and document delivery services allow students and faculty to request materials not held at Bowdoin; most journal articles are delivered electronically, and books arrive daily from Colby and Bates colleges, other libraries in New England, and worldwide.

## Library Locations and Collections

The handsome Hawthorne-Longfellow Library, the main library building, houses humanities and social sciences materials, the George J. Mitchell Department of Special Collections \& Archives, and a depository of federal and Maine State documents. It features an array of popular student study spaces, ranging from quiet individual carrels to technologically equipped group learning spaces, as well as an electronic classroom for instruction, a multimedia lab, a student gallery, and meeting rooms for public events and student exhibits, presentations, and other activities.

The George J. Mitchell Department of Special Collections \& Archives includes rare books and manuscripts of unusual depth for a college library, plus images, recordings, and historical documents of the College, as well as the personal papers of notable alumni, including Senator George J. Mitchell (Class of 1954). These research materials afford an invaluable opportunity for undergraduates to experience conducting original research; using primary resources in Special Collections \& Archives is a distinguishing characteristic of a Bowdoin education.

The Government Documents Collection provides the Bowdoin community and the public access to print and digital government information reflecting over two centuries of federal and state history.

The Hatch Science Library offers research and instructional services and a variety of individual and group study facilities in support of its science-related print and digital resources.

## Educational Resources and Fagilities

The William Pierce Art Library and the Robert Beckwith Music Library, located adjacent to classrooms and offices for those departments, serve as centers for research and study. The Art Library offers a strong collection of art books and exhibition catalogs. The Music Library contains scores, sound recordings, videos, music books, and computer and listening stations.
The Language Media Center in Sills Hall provides multimedia facilities to support learning foreign languages and houses most Library audiovisual materials. The Center offers streamed digital radio, live international television, and foreign language newspapers and magazines from around the world, plus classroom and playback facilities for all international film standards.

## Bowdoin College Museum of Art

The Bowdoin College Museum of Art, the cornerstone of the arts and culture at Bowdoin, was recently renovated and expanded to better house and display its renowned collection. One of the earliest collegiate art collections in the nation, it came into being through the 1811 bequest of James Bowdoin III of 70 European paintings and a portfolio of 140 master drawings. Over the years, the collection has been expanded through the generosity of the Bowdoin family, alumni, and friends, and now numbers more than 20,000 objects, including paintings, sculpture, works on paper, decorative arts, and artifacts from prehistory to the present from civilizations around the world.

The Museum's landmark Walker Art Building was commissioned for the College by Harriet and Sophia Walker in honor of their uncle, a Boston businessman who had supported the creation of the first small art gallery at Bowdoin in the mid-nineteenth century. The Walker sisters, encyclopedic collectors and supporters of art education, stipulated that the building be used exclusively for art purposes. Designed by Charles Follen McKim of McKim, Mead, and White, the building was completed in 1894 and is on the National Register of Historic Places. Its brick, limestone, and granite façade is based on Renaissance prototypes, with a dramatically shadowed loggia flanked by large lion sculptures upon which generations of Brunswick children have been photographed.

The antiquities collections contain over 1,800 Assyrian, Egyptian, Greek, Roman, and Byzantine objects and constitute one of the most comprehensive compilations of ancient art in any small college museum. European art includes paintings, illustrated manuscripts, sculptures, and decorative arts. Among twelve European Renaissance and Baroque paintings given in 1961 by the Kress Foundation is a panel depicting nymphs pursued by a youth that recently has been attributed to the young Fra Angelico. The works on paper collections of prints, drawings, and photographs is large and varied, numbering more than 8,000 works and representing artists from Rembrandt and Rubens through Callot, Goya, and Manet to Picasso and Warhol.

The Museum's American collection includes an important grouping of colonial and Federal portraits, with, for example, seven major paintings by Gilbert Stuart, including the famous presidential portraits of Thomas Jefferson and James Madison, together with other works by Robert Feke, John Copley, Thomas Sully, and Joseph Blackburn. Among other notable works are the murals commissioned by McKim to decorate the Museum's rotunda by the four leading painters of the American Renaissance: Elihu Vedder, Kenyon Cox, Abbott Thayer, and John LaFarge. The collection also includes works by significant nineteenth- and twentiethcentury artists such as Mary Cassatt, Thomas Eakins, John Sloan, Rockwell Kent, Marsden

Hartley, and Andrew Wyeth, and an archive of memorabilia from Winslow Homer's Maine studio.

Non-western materials range from Japanese, Chinese, Korean, and Southeast Asian prints, ink paintings, sculpture, and decorative arts to modest but distinguished holdings of African, Pacific, Pre-Columbian, and Native American artifacts.
The recent renovation expanded galleries and a seminar room, and improved art storage facilities. The restored Museum retains the building's iconic architectural features and provides state-of-the-art climate control and mechanical systems. A new, dramatic glass and bronze entry pavilion houses a glass elevator and "floating" steel staircase, while a rear addition to the building features an expansive glass curtain wall behind which the Museum has installed its five celebrated ancient Assyrian relief sculptures.
The Museum, open to the public at no charge, is a teaching facility, with the core of its mission to keep its rich collections within immediate reach of Bowdoin students, faculty, scholars, and art lovers. Its active emphasis on the study of original objects as an integral part of the Bowdoin curriculum makes the Museum the ultimate cross-disciplinary and multicultural enterprise. Although online resources are no substitute for an actual visit, the collections can be searched and information on Museum programs and publications found on the website at bowdoin.edu/art-museum.

## Peary-MagMillan Argtic Museum and Argtic Studies Center

The Peary-MacMillan Arctic Museum was founded in honor of two famous Arctic explorers and Bowdoin alumni, Admirals Robert E. Peary (Class of 1877) and Donald B. MacMillan (Class of 1898). On April 6, 1909, after a lifetime of Arctic exploration, Peary became the first person to reach the North Pole. MacMillan was a crew member on that North Pole expedition. Between 1908 and 1954, MacMillan explored Labrador, Baffin Island, Ellesmere Island, and Greenland. Most of his expeditions were made on board the Bowdoin, a schooner he designed for work in ice-laden northern waters. MacMillan took college students on the expeditions and introduced them to the natural history and anthropology of the North. He was not the first to involve Bowdoin students in Arctic exploration, however. In 1860, Paul A. Chadbourne, a professor of chemistry and natural history, had sailed along the Labrador and West Greenland coasts with students from Williams and Bowdoin.

The museum's collections include equipment, paintings, and photographs relating to the history of Arctic exploration, natural history specimens, artifacts and drawings made by indigenous people of Arctic North America, contemporary Canadian Inuit sculptures and prints, and Alaskan Inupiat masks and baleen baskets. The museum has large collections of ethnographic photographs and films recording past lifeways of Native Americans taken on the expeditions of MacMillan and Robert Bartlett, an explorer and captain who sailed northern waters for nearly fifty years. Diaries, logs, and correspondence relating to the museum's collections are housed in the Special Collections section of the Hawthorne-Longfellow Library.

The museum, established in 1967, is located on the first floor of Hubbard Hall. The building was named for General Thomas Hubbard of the Class of 1857, a generous benefactor of the College and financial supporter of Peary's Arctic ventures. The museum's original galleries were designed by Ian M. White, former director of the Fine Arts Museum of San Francisco, who sailed with MacMillan in 1950. Generous donations from members of the Class of 1925,

## Educational Resources and Facilities

together with gifts from George B. Knox of the Class of 1929, a former trustee, and other interested alumni and friends, made the museum a reality. Continued support from friends of the College and the Kane Lodge Foundation and federal and state grants have allowed the museum to continue to grow.

The Arctic Studies Center was established in 1985 as a result of a generous matching grant from the Russell and Janet Doubleday Foundation to endow the directorship of the center, in recognition of the Doubledays' close relationship to MacMillan. The center links the resources of the museum and library with teaching and research efforts, and hosts lectures, workshops, and educational outreach projects. Through course offerings, field research programs, employment opportunities, and special events, the center promotes anthropological, archaeological, geological, and environmental investigations of the North.

## Arts Facilities

Bowdoin has a deep and historic commitment to the role of the arts in a liberal education which is supported by state-of-the-art facilities and numerous opportunities for participation in the vibrant student performance and art exhibition scene on campus. For students wishing to specialize in an artistic field, Bowdoin's programs offer exceptional flexibility and the opportunity for in-depth study with recognized faculty. Bowdoin also hosts an exciting array of performances and exhibitions, bringing renowned artists and scholars to campus from all parts of the world.

## Edwards Center for Art and Dance

The Robert H. and Blythe Bickel Edwards Center for Art and Dance, an ambitious renovation of a former landmark elementary school, offers a dynamic and communal center for the full range of activities in the visual arts and dance on campus, with modern studios, classrooms, spaces for student critiques and exhibitions, and a state-of-the-art digital media lab. This newest addition to the campus replaces a number of disparate arts spaces. The Edwards Center enables faculty and students engaged in dance, painting, drawing, photography, sculpture, architecture, printmaking, woodworking, and digital media and design to work together under a single roof, creating a cohesive arts community and numerous new opportunities for artistic synergy.

The Visual Arts Center houses the faculty in Art History, the Pierce Art Library (see page 310), Beam Classroom, and Kresge Auditorium. (See also Museums, pages 310-312.)

## Pickard and Wish Theaters

Memorial Hall includes performance, rehearsal, set, and instructional facilities. The centerpiece is Pickard Theater, a 600-seat theater with proscenium stage equipped with a full fly system and computer lighting. The 150 -seat Wish Theater addresses the needs of experimental, educational theater with a very flexible, relatively small space with high-tech lighting and sound. Memorial Hall also features a fully equipped design classroom, seminar rooms, and a dance studio.

## Gibson Hall

Gibson Hall houses the Department of Music and offers classrooms, rehearsal and practice rooms, teaching studios, the Beckwith Music Library, electronic music labs, faculty offices, a 68 -seat classroom/recital hall, and a more intimate seminar room. It is located on the main quadrangle between the Walker Art Building and the Hawthorne-Longfellow Library.

## Studzinski Recital Hall

The world-class Studzinski Recital Hall is a transformation of the Curtis Pool building into a 280-seat, state-of-the-art facility for small- and medium-sized musical performances. The hall includes a rehearsal room, nine practice rooms, and a number of Steinway pianos. Kanbar Auditorium features raked seating, exceptional acoustics, advanced technical capabilities, and a stage designed to accommodate different performance configurations and types of musical programs, including classical, jazz, electronic, and world music.

## Genter for Learning and Teaghing

Bowdoin College's Center for Learning and Teaching (CLT) houses a group of programs designed to support learning and teaching throughout the curriculum. The programs offer writing assistance, peer tutoring, academic mentoring, and study groups. The three programs and the English for Multilingual Students consultant are housed in Kanbar Hall, Room 102, and work cooperatively to enhance Bowdoin's curricular resources and to strengthen students' academic experience. The programs are described below.

## The Baldwin Program for Academic Development

The Baldwin Program for Academic Development opened in 1999-2000 with the mission of creating a space in which students, faculty, and staff members can address issues related to learning at Bowdoin College. Established through a gift to the College by Linda G. Baldwin ${ }^{\prime} 73$, the program offers resources to help students attain their academic goals and faculty to enhance student learning.

Based on an individualized and holistic approach to learning, the program offers activities and services such as study skills workshops and individual consultation with peer academic mentors. Mentors help fellow students assess their academic strengths and weaknesses and develop individually tailored time management, organizational, and study strategies. Mentors may be particularly useful to students encountering difficulty balancing the academic and social demands of college life; struggling to find more effective approaches to understanding, learning, and remembering new material; experiencing problems with procrastination; or simply achieving the self-structuring demanded by an independent course or honors project.

## Quantitative Reasoning Program

The Quantitative Reasoning (QR) Program was established in 1996 to assist with the integration of quantitative reasoning throughout the curriculum and to encourage students to develop competence and confidence in using quantitative information. The program was established in recognition of the increasing demand to understand and use quantitative information in college-level work, in employment situations, and for effective citizenship.

The QR Program assists students in a variety of ways. Entering students are tested to assess their proficiency with quantitative material. Utilizing the test results and other indicators, the director of Quantitative Reasoning and faculty advisors counsel students regarding appropriate courses to fulfill their Mathematical, Computational, or Statistical Reasoning (MCSR) distribution requirement, including placement in the Mathematics 1050 \{50\}: Quantitative Reasoning course. In addition, students are encouraged to take courses across the curriculum that enhance their quantitative skills. The QR Program supplements many of the quantitative courses by providing small study groups led by trained peer tutors. Upon the request of instructors, workshops on special topics are also provided by the QR Program. One-on-one tutoring is available on a limited basis.

## Educational Resources and Facilities

## The Writing Project

The Writing Project is based on the premise that students are uniquely qualified to serve as intelligent, empathetic, and helpful readers of one another's writing. As collaborators rather than authorities, peer writing assistants facilitate the writing process for fellow students by providing helpful feedback while encouraging writers to retain an active and authoritative role in writing and revising their work. Each semester, the Writing Project assigns specially selected and trained writing assistants to a variety of courses by request of the instructor. The assistants read and comment on early drafts of papers and meet with the writers individually to help them expand and refine their ideas, clarify connections, and improve sentence structure. After revisions have been completed, each student submits a final paper to the instructor along with the draft and the assistant's comments. Students in any course on campus may also reserve conferences with a writing assistant in the Writing Workshop open each week from Sunday through Thursday.

Students interested in becoming writing assistants apply before spring break. Those accepted enroll in a fall semester course on the theory and practice of teaching writing, offered through the Department of Education. Successful completion of the course qualifies students to serve as tutors in later semesters, when they receive a stipend for their work. A list of courses participating in the Project will be available during the first week of each semester. For further information, contact Kathleen O'Connor, director of the Writing Project, or visit the Writing Project website, bowdoin.edu/writing-project/.

## English for Multilingual Students

Students who are multilingual or who have non-native English speaking parents may work individually with the English for Multilingual Students consultant. Students may seek help with understanding assignments and readings and attend to grammar, outlining, revising, and scholarly writing conventions. Specific attention to pronunciation and oral presentation skills is also offered. Any student wishing to make an appointment with the English for Multilingual Students consultant is welcome.

## Field Stations

## The Bowdoin Pines

Adjacent to the campus on either side of the Bath Road is a 33-acre site known as the Bowdoin Pines. Cathedral white pines, some of them 135 years old, tower over the site, which is a rare example of one of Maine's few remaining old-growth forests. For biology students, the Pines provides an easily accessible outdoor laboratory. For other students, the site offers a place for a walk between classes, an inspirational setting for creating art, or simply a bit of solitude. A system of trails within the Pines makes the site accessible to students and community members.

## Bowdoin Scientific Station

The College maintains a scientific field station on Kent Island, off Grand Manan Island, in the Bay of Fundy, New Brunswick, Canada, where qualified students can conduct research in ecology, animal behavior, marine biology, botany, geology, and meteorology. The 200-acre island was presented to the College in 1935 by John Sterling Rockefeller. Since then, the field station has built an international reputation, with more than 160 publications based on research at Kent Island, many of them co-authored by Bowdoin students.

Kent Island is a major seabird breeding ground. Its location makes it a concentration point for migrating birds in spring and fall. The famous Fundy tides create excellent opportunities for the study of marine biology. The island also features a variety of terrestrial habitats. In 2005, the College acquired neighboring Hay and Sheep Islands to help preserve the unique environment offered by the Scientific Station.

Although formal courses are not offered at the station, students from Bowdoin and other institutions select problems for investigation on Kent Island during the summer and conduct independent field work with the advice and assistance of a faculty director. Students have the opportunity to collaborate with faculty members and graduate students from numerous universities and colleges. Three-day field trips to Kent Island are a feature of Bowdoin's courses in ecology and ornithology.

## Coastal Studies Center

The Coastal Studies Center occupies a 118-acre coastal site that is twelve miles from the campus on Orr's Island and known as Thalheimer Farm. The Center is devoted to interdisciplinary teaching and research in archaeology, marine biology, terrestrial ecology, ornithology, and geology.
The Center's facilities include a marine biological laboratory with flowing seawater for laboratory observation, a pier facility located on Harpswell Sound, and a terrestrial ecology laboratory. These facilities play an active role in Bowdoin's programs in biology, earth and oceanographic science, and environmental studies, and the site has been widely used for studio art courses. In addition, the centrally located farmhouse provides seminar and kitchen facilities where classes from all disciplines can gather in a retreat-like atmosphere that encourages sustained, informal interaction among students and faculty members.

The Coastal Studies Center site is surrounded on three sides by the ocean and encompasses open fields, orchards, and old-growth spruce-fir forest. A 4.5-mile interpretive trail runs through the site, offering students and the local community a glimpse into the cultural and natural history of the property and surrounding coastal waters.

## Student Fellowships and Researgh

The Office of Student Fellowships and Research was launched in Fall 2007 with the aim of connecting Bowdoin students to merit-based academic experiences. Often, the application forms for these merit-based scholarships and fellowships require applicants to concisely articulate their past experiences, interests, and future aspirations. While sometimes challenging, this requirement encourages students to undergo a process of self-assessment and selfdevelopment. The Office of Student Fellowships and Research is committed to making the application process a worthwhile learning experience for all students, regardless of whether a fellowship is awarded.

The Office of Student Fellowships and Research works with students and alumni to identify and to apply for relevant nationally competitive fellowships and scholarships such as Fulbright, Marshall, Rhodes, and Watson. Numerous Bowdoin students receive these prestigious awards each year, enabling them to engage in a variety of activities including spending time overseas, conducting independent research, receiving support toward their undergraduate tuition, and attending graduate school.

The Office of Student Fellowships and Research also strives to inform all Bowdoin students about undergraduate research opportunities, primarily at Bowdoin, but also at institutions

## Educational Resources and Facilities

across the country. Each year the College awards Bowdoin research fellowships to more than 160 Bowdoin students to carry out faculty-mentored research across all disciplines. A Bowdoin research fellowship allows a student to delve deeply into a research question and can lead to an enhanced independent study or honors project, co-authoring a paper with a faculty mentor, or presenting findings at a professional meeting. These research experiences enrich students' undergraduate experience, make students more competitive for entrance to graduate school, and prepare students to successfully undertake graduate study.

## Joseph McKeen Center for the Common Good

At the opening of Bowdoin College in 1802, President Joseph McKeen declared that:
...literary institutions are founded and endowed for the common good, and not for the private advantage of those who resort to them for education. It is not that they may be enabled to pass through life in an easy or reputable manner, but that their mental powers may be cultivated and improved for the benefit of society. If it be true, that no man should live to himself, we may safely assert, that every man who has been aided by a public institution to acquire an education, and to qualify himself for usefulness, is under peculiar obligations to exert his talents for the public good.

Encouraging students to live up to McKeen's vision is a central mission of the College as a whole, and the Joseph McKeen Center for the Common Good provides opportunities for students to discover the ways in which their unique talents, passions, and academic pursuits can be used for the "benefit of society" through public engagement.

Although housed in Banister Hall, the McKeen Center supports work that takes place across the campus, in local communities, and at selected locations around the world. The Center assists student-led volunteer organizations that provide service to the local community through activities such as mentoring, tutoring, visiting with senior citizens, serving meals at the local homeless shelter, and working with immigrant populations in nearby Portland. Fostering student initiative and leadership, the Center provides opportunities for students to propose and lead alternative spring break trips that connect their peers with community organizations to address public issues in places ranging from New York City to rural Mississippi, and from northern Maine to Guatemala. The McKeen Center also encourages students to reflect upon their public engagement and connect these experiences to curricular and vocational interests.

In coordination with other departments, the Center administers summer fellowships for students interested in non-profit internships and provides grants for international service. It assists students in finding community partners with whom to engage in community-connected independent research and honors projects and helps identify courses at the College that provide context for the issues students address through their community work. The McKeen Center supports faculty in developing and teaching community-based courses that take students out of the classroom to conduct interviews, record oral histories, develop curriculum for schools, and collect scientific data in conjunction with community partners.

The Center also encourages and helps sponsor campus-wide events that challenge students, faculty, and staff to examine the varied meanings of public service and the "common good." These events include the Seeking the Common Good Series of lectures and symposia, and Common Good Day, a traditional day of service that introduces the Bowdoin community to the local community each fall.

## Information and Teghnology

Bowdoin embeds technology within the fabric of the academic and social experience. Upon arrival, students, faculty, and staff have access to the latest software, informed consultants, and targeted training to take full advantage of Bowdoin's technical resources.

The Chief Information Officer leads the Information and Technology (IT) Division that consults with faculty and students on their needs, and works in partnership with departments to provide innovative technological solutions. From classrooms to campus residences to the Coastal Studies Center in Harpswell, access to technology is everywhere. Bowdoin is one of the most wired campuses in the nation; next generation wireless covers the entire campus. The College licenses over two dozen software titles, many discipline-specific, providing students and faculty with the latest tools to assist with their studies, analysis, and research. A full-time, professionally staffed Help Desk supports Macintosh, Windows, and Linux computers and these software applications. A student-run Help Desk answers student questions and resolves issues throughout the day as well as providing help during evenings and on weekends. The student Help Desk employs many students during their tenure at Bowdoin, giving them opportunities to earn money while gaining technical skills.

The campus has twenty academic computer labs, a 24 -hour public lab, and over thirty public printers. Additional resources available to students include Bowdoin e-mail accounts, network storage, video conferencing capability, satellite television, VoIP telephone systems, and voice mail. The College provides a free equipment loaner pool that provides video, sound, projection, laptops, recording devices, and digital cameras, along with newer technology for testing and evaluation. Other services that IT provides include technical, design, and project consulting. IT is constantly exploring technology trends while also adopting the best solutions in business and higher education to deliver easily accessible, secure, stable technology services.

If you have an idea or solution that uses technology to enhance the student experience at Bowdoin, share it with the Student Information Technology Advisory Council (I.T.A.C.), a student-run organization-it just might get funded.

## Student Affairs

A residential college adds significantly to the education of students when it provides the opportunity for a distinctive and dynamic learning community to develop. In such a community, Bowdoin students are encouraged, both directly and indirectly, to engage actively in a quest for knowledge both inside and outside the classroom, and to take responsibility for themselves, for others, and for their community. They are challenged to grow personally by constant contact with new experiences and different ways of viewing the world. Simultaneously, they are supported and encouraged by friends, faculty, staff, and other community members and find opportunities for spontaneous as well as structured activities. Such a community promotes the intellectual and personal growth of individuals and encourages mutual understanding and respect in the context of diversity.

The programs and services provided by the Division of Student Affairs exist to support students and the College in developing and maintaining the learning community. Staff throughout the Division of Student Affairs assist students with their studies, their leadership and social growth, their well-being, and their future. The Bowdoin College Student Handbook online provides comprehensive information about student life and the programs and services of the Division of Student Affairs. Additional information is available at bowdoin.edu.

## The Agademic Honor and Sogial Codes

The success of the Academic Honor Code and Social Code requires the active commitment of the College community. Since 1964, with revisions in 1977 and 1993, the community pledge of personal academic integrity has formed the basis for academic and social conduct at Bowdoin. The institution assumes that all Bowdoin students possess the attributes implied in the codes. Bowdoin College expects its students to be responsible for their behavior on and off the campus and to assure the same behavior of their guests.

The Academic Honor Code plays a central role in the intellectual life at Bowdoin College. Students and faculty are obligated to ensure its success. Uncompromised intellectual inquiry lies at the heart of a liberal education. Integrity is essential in creating an academic environment dedicated to the development of independent modes of learning, analysis, judgment, and expression. Academic dishonesty is antithetical to the College's institutional values and constitutes a violation of the Honor Code.

The Social Code describes certain rights and responsibilities of Bowdoin College students. While it imposes no specific morality on students, the College requires certain standards of behavior to secure the safety of the College community and ensure that the campus remains a center of intellectual engagement.

Individuals who suspect violations of the Academic Honor Code and/or Social Code should not attempt to resolve the issues independently, but are encouraged to refer their concerns to the Office of the Dean of Student Affairs. The College reserves the right to impose sanctions on students who violate these codes on or off campus. A thorough description of the Academic Honor Code, the Social Code, and the disciplinary process is included in the Bowdoin College Student Handbook online.

## Officers of Instruction

Barry Mills, A.B. (Bowdoin), Ph.D. (Syracuse), J.D. (Columbia), President of the College. (2001) $\dagger$

Ericka A. Albaugh, B.A. (Pepperdine), M.A. (Tufts-Fletcher School), Ph.D. (Duke), Assistant Professor of Government. (2008)
Anthony F. Antolini, A.B. (Bowdoin), M.A., M.A., Ph.D. (Stanford), Senior Lecturer in Music. (1992)

Hiroo Aridome, B.A. (Waseda University-Japan), M.A. (Minnesota), Senior Lecturer in Japanese. (2013)

Jason B. Archbell, B.A. (Hampden-Sydney), Coach in the Department of Athletics. (2012)
María Báez Marco, B.A. equiv., M.A. equiv. (Universidad Complutense de Madrid), Visiting Lecturer in Spanish. (2009)
Susan Benforado Bakewell, B.A. (Wisconsin-Madison), M.A. (Toronto), Ph.D. (New Mexico), Adjunct Lecturer in Art History. (Fall semester.)
William Barker, A.B. (Harpur College), Ph.D. (Massachusetts Institute of Technology), Isaac Henry Wing Professor of Mathematics. (1975)

Jack R. Bateman, B.Sc. (Dalhousie), Ph.D. (Harvard), Assistant Professor of Biology. (2008)
Mark O. Battle, B.S. (Tufts), B.M. (New England Conservatory), M.A., Ph.D. (Rochester), Associate Professor of Physics. (1999)
Thomas Baumgarte, Diplom. Ph.D. (Ludwig-Maximilians-Universität Munich), Professor of Physics. (2001)

Rachel J. Beane, B.A. (Williams), Ph.D. (Stanford), Professor of Earth and Oceanographic Science. (1998)

Greg Beckett, B.A., M.A. (Western Ontario), M.A., Ph.D. (Chicago), Assistant Professor of Anthropology. (2012)
Susan E. Bell, A.B. (Haverford), A.M., Ph.D. (Brandeis), A. Myrick Freeman Professor of Social Sciences. (1983)

Michael Birenbaum Quintero, A.A. (Simon's Rock College of Bard), B.A. (Eugene Lang), M.A., Ph.D. (New York University), Assistant Professor of Music. (On leave of absence for the academic year.) (2010)

Gil Birney, B.A. (Williams), M.Div. (Virginia), Coach in the Department of Athletics. (2000)
John B. Bisbee, B.F.A. (Alfred), Sculptor in Residence. (1996)
Barbara Weiden Boyd, A.B. (Manhattanville), A.M., Ph.D. (Michigan), Winkley Professor of Latin and Greek. (1980)
$\dagger$ Date of first appointment to the faculty

* Indicates candidate for doctoral degree at time of appointment


## Officers of Instruction

Margaret Boyle, B.A. (Reed), M.A., Ph.D. (Emory), Assistant Professor of Romance Languages. (2012)

Sarah Braunstein, B.A. (Mt. Holyoke), M.S.W. (Smith), M.F.A. (Iowa), Coastal Studies Scholar. (2013)

Aviva Briefel, B.A. (Brown), M.A., Ph.D. (Harvard), Associate Professor of English and Film Studies. (2000)

Richard D. Broene, B.S. (Hope), Ph.D. (California-Los Angeles), Professor of Chemistry. (1993)

Shilo Brooks, B.A. (St. John's College), M.A., Ph.D. (Boston College), Visiting Assistant Professor of Government. (2013)

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Dana E. Byrd, B.A. (Yale), M.A. (Delaware), Ph.D. (Yale), CFD Postdoctoral Fellow in Art History. (2012)

Kathryn Byrnes, B.A. (Davidson), M.E. (Wake Forest), Ph.D. (Colorado-Boulder), Visiting Assistant Professor of Education. (2009)

Philip Camill III, B.A. (Tennessee), Ph.D. (Duke), Rusack Associate Professor of Environmental Studies and Earth and Oceanographic Science. (2008)

David C. Caputi, B.A. (Middlebury), M.Ed. (North Adams State), Coach in the Department of Athletics. (2000)

David Carlon, B.A. (Boston University), M.S. (Massachusetts-Boston), Ph.D. (New Hampshire), Associate Professor of Biology and Director of the Bowdoin College Marine Laboratory. (2013)

Judith S. Casselberry, B.Mus. (Berklee), M.A. (Wesleyan), M.Phil., M.A., Ph.D. (Yale), Assistant Professor of Africana Studies. (On leave of absence for the fall semester.) (2009)

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Bing Chen, B.E. (Shandong University), M.E. (Tsinghua University), M.A. (Duke), M.A., M.A., M.B.A., Ph.D. (Michigan), Postdoctoral Fellow in Economics. (2013)

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Eric L. Chown, B.A., M.S. (Northwestern), Ph.D. (Michigan), Professor of Computer Science. (1998)

Brock Clarke, B.A. (Dickinson), M.A., Ph.D. (Rochester), Professor of English. (2010)
Jaed Coffin, B.A. (Middlebury), M.F.A. (Southern Maine), Adjunct Lecturer in English. (Fall semester.)

David Collings, A.B. (Pacific Union), A.M., Ph.D. (California-Riverside), Professor of English. (1987)

Sarah O'Brien Conly, A.B. (Princeton), M.A., Ph.D. (Cornell), Associate Professor of Philosophy. (On leave of absence for the academic year.) (2005)

Rachel Ex Connelly, A.B. (Brandeis), A.M., Ph.D. (Michigan), Bion R. Cram Professor of Economics. (1985)

Michael Connolly, B.A. (Brandeis), Coach in the Department of Athletics. (1999)
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Denis J. Corish, B.Ph., B.A., L.Ph. (Maynooth College, Ireland), A.M. (University College, Dublin), Ph.D. (Boston University), Professor of Philosophy Emeritus. (1973)

Peter Coviello, B.A. (Northwestern), M.A., Ph.D. (Cornell), Professor of English. (1998)
Elena Cueto Asín, B.A. (Universidad Complutense de Madrid), M.A., Ph.D. (Purdue), Associate Professor of Romance Languages. (2000)

Songren Cui, B.A. (Zhongshan), M.A., Ph.D. (California-Los Angeles), Associate Professor of Asian Studies. (1999)
Erin Curren, B.A. (Colby), M.A.-equiv. (Université Paris 7), M.A., Ph.D. (Columbia), Adjunct Lecturer in French. (Fall semester.)

Michael Danahy, B.S. (Bates), M.A., Ph.D. (Princeton), Lecturer in Chemistry. (2009)
Charlotte Daniels, B.A./B.S. (Delaware), M.A., Ph.D. (Pennsylvania), Associate Professor of Romance Languages. (1999)

Katherine L. Dauge-Roth, A.B. (Colby), D.E.U.G. (Université de Caen), M.A., Ph.D. (Michigan), Associate Professor of Romance Languages. (1999)
Dan Davies, B.S. (Keene State), M.Ed., M.S.P.T. (Hartford), Head Athletic Trainer. (2003)
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Patsy S. Dickinson, A.B. (Pomona), M.S., Ph.D. (Washington), Josiah Little Professor of Natural Sciences. (1983)
Charles Dorn, B.A. (George Washington), M.A., (Stanford), Ph.D. (California-Berkeley), Associate Professor of Education. (On leave of absence for the fall semester.) (2003)

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## Officers of Instruction

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Soren N. Eustis, B.A. (Grinnell), M.A., Ph.D. (Johns Hopkins), Assistant Professor of Chemistry. (2012)

Susan Faludi, B.A. (Harvard), Tallman Scholar in Gender and Women's Studies. (2013)
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Kelly N. Fayard, B.A. (Duke), M.A., Ph.D. (Michigan), Assistant Professor of Anthropology. (2011)

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Tomas Fortson, Coach in the Department of Athletics. (2000)
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Michael M. Franz, B.A. (Fairfield), M.A., Ph.D. (Wisconsin-Madison), Associate Professor of Government. (2005)

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## Officers of Instruction

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Yi Jin Kim Gorske, B.A. (California-Berkeley), Ph.D. (Wisconsin-Madison), Visiting Assistant Professor of Chemistry. (2011)
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James A. Higginbotham, B.S., A.M., Ph.D. (Michigan), Associate Professor of Classics on the Henry Johnson Professorship Fund and Associate Curator for the Ancient Collection. (1994)

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Russell J. Hopley, B.A. (Northwestern), M.A. (Stanford), M.A. (Loyola), Ph.D. (Princeton), Lecturer in Arabic. (2008)

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Nancy E. Jennings, B.A. (Macalester), M.S. (Illinois-Urbana-Champaign), Ph.D. (Michigan State), Associate Professor of Education and Senior Faculty Fellow in the Joseph McKeen Center for the Common Good. (1994)

Xiaoke Jia, B.A. (Henan University), M.A. (Beijing Normal University), Lecturer in Chinese Language. (2013)

DeWitt John, B.A. (Harvard), M.A., Ph.D. (Chicago), Thomas F. Shannon Distinguished Lecturer in Environmental Studies. (2000)

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Eileen Sylvan Johnson, B.S. (Cornell), M.A. (Massachusetts-Amherst), Adjunct Lecturer in Environmental Studies (fall semester) and Program Manager/GIS Analyst. (2007)

Gwyneth Jones, Senior Lecturer in Dance Performance. (1987)
Cristle Collins Judd, B.M., M.M. (Rice), M.Mus., Ph.D. (London), Professor of Music and Dean for Academic Affairs. (2006)

Susan A. Kaplan, A.B. (Lake Forest), A.M., Ph.D. (Bryn Mawr), Associate Professor of Anthropology and Director of the Peary-MacMillan Arctic Museum and Arctic Studies Center. (1985)

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B. Zorina Khan, B.Sc. (University of Surrey), M.A. (McMaster University), Ph.D. (CaliforniaLos Angeles), Professor of Economics. (1996)

Ann L. Kibbie, B.A. (Boston), Ph.D. (California-Berkeley), Associate Professor of English. (1989)

Abigail Killeen, B.F.A. (New York University-Tisch School), M.F.A. (Brandeis), Assistant Professor of Theater. (On leave of absence for the academic year.) (2008)
Yun Kim, B.A. (Baltimore), M.A., Ph.D. (American), Postdoctoral Fellow in Economics. (2013)

Michael King, B.A. (Yale), M.S., Ph.D. (Brown), Lecturer in Mathematics. (2009)
Aaron W. Kitch, B.A. (Yale), M.A. (Colorado-Boulder), Ph.D. (Chicago), Associate Professor of English. (2002)

Michael Klimov, B.A., M.A.-equiv. (Kyiv State Pedagogical Institute of Foreign LanguagesUkraine), Adjunct Lecturer in Russian.

Matthew W. Klingle, B.A. (California-Berkeley), M.A., Ph.D. (Washington), Associate Professor of History and Environmental Studies. (2001)
Bruce D. Kohorn, B.A. (Vermont), M.S., Ph.D. (Yale), Linnean Professor of Biology and Biochemistry. (2001)

Michael Kolster, B.A. (Williams), M.F.A. (Massachusetts College of Art), Associate Professor of Art. (On leave of absence for the spring semester.) (2000)
Belinda Kong, B.A. (William and Mary), M.A., Ph.D. (Michigan), Associate Professor of Asian Studies and English. (2005)

Jennifer Clarke Kosak, A.B. (Harvard-Radcliffe), Ph.D. (Michigan), Associate Professor of Classics. (1999)

Henry C. W. Laurence, B.A. (Oxford), Ph.D. (Harvard), Associate Professor of Government and Asian Studies. (1997)
Michèle LaVigne, B.A. (Hampshire), Ph.D. (Rutgers), Assistant Professor of Earth and Oceanographic Science. (2012)

Peter D. Lea, A.B. (Dartmouth), M.S. (Washington), Ph.D. (Colorado-Boulder), Associate Professor of Earth and Oceanographic Science. (1988)
Adam B. Levy, B.A. (Williams), Ph.D. (Washington), Professor of Mathematics. (1994)
John Lichter, B.S. (Northern Illinois), Ph.D. (Minnesota), Professor of Biology and Environmental Studies. (2000)

Stephen F. Loebs, A.B. (Brown), M.H.A., M.A., Ph.D. (Michigan), Distinguished Lecturer. (Fall semester.)

Barry A. Logan, B.A. (Cornell), Ph.D. (Colorado), Professor of Biology, Associate Dean for Academic Affairs, and Associate Affirmative Action Officer. (1998)
Miriam Logan, B.S., M.S. (University College-Dublin), Visiting Instructor in Mathematics.* (2013)

George Lopez, B.Mus. (Hartt School of Music), M.Mus. (Sweelinck ConservatoriumAmsterdam), Beckwith Artist in Residence. (2010)

Marcos F. Lopez, B.A., B.A., M.A., Ph.D. (California-Santa Cruz), Assistant Professor of Sociology. (2013)

Suzanne B. Lovett, A.B. (Bowdoin), Ph.D. (Stanford), Associate Professor of Psychology and Faculty Liaison for Advising. (1990)

Scott MacEachern, B.A. (Prince Edward Island), M.A., Ph.D. (Calgary), Professor of Anthropology. (1995)
Stephen M. Majercik, A.B. (Harvard), M.F.A., M.B.A (Yale), M.S. (Southern Maine), Ph.D. (Duke), Associate Professor of Computer Science. (2000)

Justin Marks, B.S. (Westmont), M.S., Ph.D. (Colorado State), Postdoctoral Fellow in Mathematics. (2013)
Janet M. Martin, A.B. (Marquette), M.A., Ph.D. (Ohio State), Professor of Government. (1986)

## Officers of Instruction

Frank Mauceri, B.A., B.M. (Oberlin), M.M., D.M.A. (Illinois-Urbana-Champaign), Lecturer in Music. (2003)

Anne E. McBride, B.S. (Yale), M.Phil. (Cambridge), Ph.D. (Colorado-Boulder), Associate Professor of Biology and Biochemistry. (2001)

Nyama McCarthy-Brown, B.A. (Spelman), M.F.A. (Michigan), Ph.D. (Temple), Visiting Assistant Professor of Dance. (2011)

Sarah F. McMahon, A.B. (Wellesley), Ph.D. (Brandeis), Associate Professor of History. (1982)
Tracy McMullen, B.A. (Stanford), M.M., M.A. (North Texas), Ph.D. (California-San Diego), Assistant Professor of Music. (2012)

Terry Meagher, A.B. (Boston), M.S. (Illinois State), Associate Director of Athletics and Sidney J. Watson Coach of Men's Ice Hockey. (1983)

Stephen J. Meardon, B.A. (Bowdoin), M.A., Ph.D. (Duke), Assistant Professor of Economics. (2008)

Casey Meehan, B.S. (Wisconsin-Madison), M.Ed. (Minnesota-Twin Cities), Ph.D. (Wisconsin-Madison), Andrew W. Mellon Postdoctoral Fellow in Education. (2012)

Raymond H. Miller, A.B. (Indiana), A.M., Ph.D. (Harvard), Associate Professor of Russian. (1983)

Richard E. Morgan, A.B. (Bowdoin), A.M., Ph.D. (Columbia), William Nelson Cromwell Professor of Constitutional and International Law and Government. (On leave of absence for the fall semester.) (1969)

John Morneau, B.M. (New Hampshire), Director of the Bowdoin Concert Band. (Adjunct.) (1988)

April Morris, B.A. (Hood), M.A. (Southern Methodist), Ph.D. (Texas-Austin), Andrew W. Mellon Postdoctoral Fellow in Art History. (2013)

Robert G. Morrison, A.B., A.M. (Harvard), Ph.D. (Columbia), Associate Professor of Religion. (2008)

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James Mullen, B.F.A. (New Hampshire), M.F.A. (Indiana), Associate Professor of Art. (1999)
Elizabeth Muther, B.A. (Wellesley), Ph.D. (California-Berkeley), Associate Professor of English. (1993)

Stephen G. Naculich, B.S. (Case Western Reserve), M.A., Ph.D. (Princeton), Professor of Physics. (1993)

Jeffrey K. Nagle, A.B. (Earlham), Ph.D. (North Carolina), Charles Weston Pickard Professor of Chemistry. (On leave of absence for the spring semester.) (1980)

Erik Nelson, B.A. (Boston College), M.A., Ph.D. (Minnesota), Assistant Professor of Economics. (On leave of absence for the academic year.) (2010)

Ingrid A. Nelson, B.A. (Wellesley), M.A., Ph.D. (Stanford), Assistant Professor of Sociology. (2010)

Michael Nerdahl, B.S., M.A., Ph.D. (Wisconsin-Madison), Lecturer in Classics. (2008)

Erika M. Nyhus, B.A. (California-Berkeley), M.A., Ph.D. (Colorado-Boulder), Assistant Professor of Neuroscience and Psychology. (2013)

John D. O’Brien, B.A. (Pomona), Ph.D. (California-Los Angeles), Assistant Professor of Mathematics. (2012)

Kathleen A. O’Connor, A.B. (Dartmouth), A.M., Ph.D. (Virginia), Director of the Writing Project and Lecturer in Education. (1987)

Katherine D. O'Doherty, B.A. (Notre Dame), M.S. (Vanderbilt), Postdoctoral Fellow in Psychology.* (2013)
Francis O’Leary, B.A. (Thomas Edison State College), Coach in the Department of Athletics. (2005)

Daniela A. S. de Oliveira, B.S., M.S. (Federal University of Minas Gerais-Brazil), Ph.D. (California-Davis), Assistant Professor of Computer Science. (On leave of absence for the academic year.) (2010)

Marissa O'Neil, A.B. (Bowdoin), M.S. (Massachusetts-Amherst), Coach in the Department of Athletics. (2010)
Michael F. Palopoli, B.S., M.S. (Michigan), Ph.D. (Chicago), Associate Professor of Biology. (1998)
H. Roy Partridge Jr., B.A. (Oberlin), M.S.W., M.A., Ph.D. (Michigan), M.Div. (Harvard), Visiting Assistant Professor of Sociology and Special Assistant to the President for Multicultural Affairs. (1994)
Jill E. Pearlman, B.A. (Beloit), M.A. (California), Ph.D. (Chicago), Senior Lecturer in Environmental Studies. (On leave of absence for the academic year.) (1994)
Nicola C. Pearson, B.S. (St. Mary's College, London), Associate Athletic Director and Coach in the Department of Athletics. (1996)

Stephen G. Perkinson, B.A. (Colgate), M.A., Ph.D. (Northwestern), Associate Professor of Art History. (On leave of absence for the academic year.) (2002)

Emily M. Peterman, B.A. (Middlebury), Ph.D. (California-Santa Barbara), Assistant Professor of Earth and Oceanographic Science. (2012)

Carey R. Phillips, B.S. (Oregon State), M.S. (California-Santa Barbara), Ph.D. (WisconsinMadison), Research Professor of Biology. (1985)

Thomas Pietraho, B.A., M.S. (Chicago), Ph.D. (Massachusetts Institute of Technology), Associate Professor of Mathematics. (2001)
Julia Anne Poitras Santos, B.S. (Tufts), M.F.A. (Colorado-Boulder), Adjunct Lecturer in Art. (Fall semester.)

Christian P. Potholm II, A.B. (Bowdoin), M.A., M.A.L.D., Ph.D. (Tufts), DeAlva Stanwood Alexander Professor of Government. (1970)
Laura J. Premack, B.A. (Wesleyan), Ed.M. (Harvard), M.A., Ph.D. (North Carolina-Chapel Hill), Andrew W. Mellon Postdoctoral Fellow in Africana Studies and Latin American Studies. (2012)

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## Officers of Instruction

Brian Purnell, B.A. (Fordham), M.A., Ph.D. (New York University), Assistant Professor of Africana Studies and History. (On leave of absence for the spring semester.) (2010)

Samuel P. Putnam, B.S. (Iowa), M.S., Ph.D. (Pennsylvania State), Associate Professor of Psychology. (2001)

Julie Quimby, B.A. (Ithaca), M.A., Ph.D. (Maryland), Adjunct Lecturer in Psychology. (Spring semester.)

Patrick J. Rael, B.A. (Maryland-College Park), M.A., Ph.D. (California-Berkeley), Associate Professor of History. (1995)

Amanda Redlich, B.A. (Chicago), Ph.D. (MIT), Assistant Professor of Mathematics. (2013)
Anna Rein, M.A. equiv. (University of Pisa), Senior Lecturer in Italian. (2000)
Marilyn Reizbaum, A.B. (Queens College), M.Litt. (Edinburgh), Ph.D. (Wisconsin-Madison), Harrison King McCann Professor of English. (1984)

Manuel L. Reyes, B.S. (Westmont), Ph.D. (Berkeley), Assistant Professor of Mathematics. (2011)

Nancy E. Riley, B.A. (Pennsylvania), M.P.H., M.A. (Hawai i), Ph.D. (Johns Hopkins), Professor of Sociology. (1992)

Meghan K. Roberts, B.A. (William and Mary), Ph.D. (Northwestern), Assistant Professor of History. (2011)

Davis R. Robinson, B.A. (Hampshire), M.F.A. (Boston University), Professor of Theater. (1999)

Collin Roesler, B.S. (Brown), M.S. (Oregon State), Ph.D. (Washington), Associate Professor of Earth and Oceanographic Science. (2009)

Maren Rojas, B.A. (William and Mary), M.Ed. (Syracuse), Coach in the Department of Athletics. (2007)

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Nathan J. Rothschild, B.A. (Yale), M. Litt. (St. Andrews), Ph.D. (Chicago), Postdoctoral Fellow in Philosophy. (2013)

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Timothy M. Ryan, A.B. (Bowdoin), M.S. (Drexel), Ashmead White Director of Athletics. (2005)

Russell Rymer, Visiting Writer.
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[^0]:    * These departments and programs offer only a minor.

