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# Bowdoin

2014-2015 CATALOGUE



August 2014

Brunswick, Maine

[bowdoin.edu/catalogue](http://bowdoin.edu/catalogue)

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*The information in this publication was accurate at the time of publication. However, the College is a dynamic institution and must reserve the right to make changes in course offerings, degree requirements, regulations, procedures, and charges.*

*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](http://bowdoin.edu/Security/RightToKnow.shtml).*

# CONTENTS

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|  |     |
|--|-----|
| General Information .....                    | 5   |
| College Calendar .....                       | 6   |
| The Offer of the College .....               | 9   |
| Admissions and Financial Aid .....           | 10  |
| Admission to the College .....               | 10  |
| Financial Aid .....                          | 11  |
| Expenses .....                               | 12  |
| A Liberal Education at Bowdoin College ..... | 15  |
| The Curriculum .....                         | 16  |
| Academic Standards and Regulations .....     | 21  |
| Special Academic Programs .....              | 36  |
| Off-Campus Study .....                       | 38  |
| Courses of Instruction .....                 | 39  |
| Explanation of Symbols Used .....            | 39  |
| Africana Studies .....                       | 40  |
| Arabic .....                                 | 50  |
| Art .....                                    | 51  |
| Asian Studies .....                          | 60  |
| Biochemistry .....                           | 73  |
| Biology .....                                | 74  |
| Chemistry .....                              | 84  |
| Cinema Studies .....                         | 90  |
| Classics .....                               | 95  |
| Computer Science .....                       | 104 |
| Earth and Oceanographic Science .....        | 108 |
| Economics .....                              | 116 |
| Education .....                              | 128 |
| English .....                                | 133 |
| Environmental Studies .....                  | 143 |
| First-Year Seminars .....                    | 159 |
| Gay and Lesbian Studies .....                | 173 |
| Gender and Women's Studies .....             | 175 |



|   |     |
|---|-----|
| German .....  | 184 |
| Government and Legal Studies .....                            | 188 |
| History .....   | 201 |
| Interdisciplinary Majors .....                                | 220 |
| Interdisciplinary Studies .....                               | 225 |
| Latin American Studies .....                                  | 226 |
| Mathematics .....   | 234 |
| Music .....   | 243 |
| Neuroscience .....  | 254 |
| Philosophy .....  | 256 |
| Physics and Astronomy .....                                   | 260 |
| Psychology .....  | 266 |
| Religion .....  | 273 |
| Romance Languages .....                                       | 279 |
| Russian .....   | 291 |
| Sociology and Anthropology .....                              | 295 |
| Theater and Dance .....                                       | 305 |
| Educational Resources and Facilities .....                    | 315 |
| Bowdoin College Library .....                                 | 315 |
| Bowdoin College Museum of Art.....                            | 316 |
| Peary-MacMillan Arctic Museum .....                           | 317 |
| Arts Facilities .....   | 318 |
| Center for Learning and Teaching .....                        | 319 |
| Field Stations .....  | 320 |
| Student Fellowships and Research.....                         | 321 |
| Joseph McKeen Center for the Common Good .....                | 322 |
| Information Technology .....                                  | 323 |
| Student Affairs and the Academic Honor and Social Codes ..... | 324 |
| Officers of Instruction .....                                 | 325 |
| Officer of Instruction Emeriti .....                          | 338 |
| Instructional Staff .....                                     | 341 |
| Research Associates .....                                     | 343 |
| Index .....   | 344 |

# GENERAL INFORMATION

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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 1,792 students (50 percent male, 50 percent female; last two classes 50/50 and 51/49 percent); about 245 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 199 full-time faculty in residence, 98 percent with Ph.D. or equivalent; 23 head athletic coaches.

**Geographic Distribution of Students:** New England, 37.7 percent; Middle Atlantic states, 23.5 percent; Midwest, 8.6 percent; West, 12.8 percent; Southwest, 3.1 percent; South, 7.9 percent; international, 6.4 percent. Forty-seven states, the District of Columbia, Guam, Puerto Rico, and thirty-four countries are represented. Minority and international enrollment is 35 percent.

**Statistics:** As of June 2014, 38,416 students have matriculated at Bowdoin College, and 30,199 degrees in academic programs have been awarded. In addition, earned master's degrees have been awarded to 274 postgraduate students. Living alumni/ae include 19,580 graduates, 2,179 non-graduates, 125 honorary degree holders (34 alumni/ae, 91 non-alumni/ae), twenty-one recipients of the Certificate of Honor, and 224 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. The Controller's Office and the Human Resources Office are temporarily located on the second floor of the Brunswick Station visitor center at 16 Station Avenue and will be relocated to 216 Maine Street in December 2014. 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 twenty-four hours a day, seven days a week, by pressing "0." Further information about telephone numbers can be found at [bowdoin.edu/directory/](http://bowdoin.edu/directory/).

**Bowdoin College Website:** [bowdoin.edu](http://bowdoin.edu). The online Bowdoin College Catalogue can be found at [bowdoin.edu/catalogue/](http://bowdoin.edu/catalogue/).

# COLLEGE CALENDAR

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## 213th Academic Year

### 2014

|                                  |  |
|----------------------------------|--|
| August 26, Tuesday               | First-Year Arrival Day   |
| August 27-30, Wed.-Sat.          | Orientation Trips  |
| August 30-Sept. 3, Sat.-Wed.     | Orientation  |
| September 1, Monday              | Labor Day (College holiday, many offices closed)   |
| September 2, Tuesday             | College housing ready for occupancy for upperclass students, 8:00 a.m.                           |
| September 3, Wednesday           | Opening of the College—Convocation, 3:30 p.m.  |
| September 4, Thursday            | Fall semester classes begin, 8:00 a.m.   |
| Sept. 18-20, Thurs.-Sat.         | Alumni Council, Alumni Fund Directors, and BASIC National Advisory Board meetings                |
| September 20, Saturday           | Common Good Day  |
| September 24-26, Wed.-Fri.       | Rosh Hashanah, begins at sunset on Sept. 24 and concludes at sunset on Sept. 26                  |
| October 3-4, Fri.-Sat.           | Yom Kippur, begins at sunset on Oct. 3 and concludes at sunset on Oct. 4                         |
| October 10, Friday               | Fall vacation begins after last class; Note: Columbus Day is Monday, Oct. 13                     |
| October 15, Wednesday            | Fall vacation ends, 8:00 a.m.  |
| October 16-18, Thurs.-Sat.       | Meetings of the Board of Trustees  |
| October 17-19, Fri.-Sun.         | Homecoming Weekend   |
| October 31, Friday               | Sarah and James Bowdoin Day  |
| October 31-November 2, Fri.-Sun. | Family Weekend   |
| November 26, Wednesday           | Thanksgiving vacation begins, 8:00 a.m.* (November 26-28: College holidays, many offices closed) |
| December 1, Monday               | Thanksgiving vacation ends, 8:00 a.m.  |
| December 11, Thursday            | Last day of classes  |
| December 12-15, Fri.-Mon.        | Reading period   |
| December 16-21, Tues.-Sun.       | Fall semester examinations   |
| December 22, Monday              | College housing closes for winter break, noon  |
| December 24, Wednesday           | Christmas Eve Holiday observed (College holiday, many offices closed)                            |
| December 25, Thursday            | Christmas Holiday observed (College holiday, many offices closed)                                |
| December 31, Wednesday           | New Year's Eve Holiday observed (College holiday, many offices closed)                           |

**2015**

|                           |   |
|---------------------------|---|
| January 1, Thursday       | New Year's Day Holiday observed (College Holiday, many offices closed)            |
| January 17, Saturday      | College housing available for occupancy, 8:00 a.m.                                |
| January 19, Monday        | Martin Luther King Jr. Day (College holiday, some offices closed)                 |
| January 19, Monday        | Spring semester classes begin, 8:00 a.m.  |
| February 5-7, Thurs.-Sat. | Meetings of the Board of Trustees   |
| February 16, Monday       | Presidents' Day, classes in session (College holiday, some offices closed)        |
| March 6, Friday           | Spring vacation begins after last class   |
| March 7, Saturday         | College housing closes for spring vacation, noon                                  |
| March 21, Saturday        | College housing available for occupancy, 8:00 a.m.                                |
| March 23, Monday          | Spring vacation ends, 8:00 a.m.   |
| March 26-28, Thurs.-Sat.  | Alumni Council, Alumni Fund Directors, and BASIC National Advisory Board meetings |
| April 3, Friday           | Good Friday   |
| April 3-11, Fri.-Sat.     | Passover, begins at sunset on April 3 and concludes at sunset on April 11         |
| April 5, Sunday           | Easter  |
| May 6, Wednesday          | Last day of classes; Honors Day   |
| May 7-9, Thurs.-Sat.      | Meetings of the Board of Trustees   |
| May 7-10, Thurs.-Sun.     | Reading period  |
| May 11-16, Mon.-Sat.      | Spring semester examinations  |
| May 17, Sunday            | College housing closes for non-graduating students, noon                          |
| May 22, Friday            | Baccalaureate   |
| May 23, Saturday          | The 210th Commencement Exercises  |
| May 23, Saturday          | College housing closes for graduating students, 6:00 p.m.                         |
| May 25, Monday            | Memorial Day (College holiday, many offices closed)                               |
| May 28-31, Thurs.-Sun.    | Reunion Weekend   |
| July 3, Friday            | 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 26 classes will be rescheduled on a class-by-class basis by the course instructor.

# 2014

---

## August

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

## September

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

## October

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

## November

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

## December

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

# 2015

---

## January

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

## February

| SUN | MON | TUE | WED | THU | FRI | SAT |
|-----|-----|-----|-----|-----|-----|-----|
| 1   | 2   | 3   | 4   | 5   | 6   | 7   |
| 8   | 9   | 10  | 11  | 12  | 13  | 14  |
| 15  | 16  | 17  | 18  | 19  | 20  | 21  |
| 22  | 23  | 24  | 25  | 26  | 27  | 28  |

## March

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

## April

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

## May

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

## June

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

## THE OFFER OF THE COLLEGE

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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 FINANCIAL AID

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## 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, multit talented, 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 5, 2014.

All Early Decision and Regular Decision admissions decisions for US 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-US 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/](http://bowdoin.edu/admissions/).

## FINANCIAL AID

At Bowdoin, more than 45 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 grant money from federal, state, and institutional sources and a small work award. 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/](http://bowdoin.edu/studentaid/).



# EXPENSES

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## COLLEGE CHARGES

Fees for the 2014-2015 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*                | \$22,177    | \$46,354  |
| Housing                 | 2,982       | 5,964     |
| Board (19-meal plan)    | 3,398       | 6,796     |
| Student Activities Fee* | 227         | 454       |
| Class Dues*:            |             |           |
| Seniors                 | 30          | 60        |
| 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 2014-2015 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 |

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 \$1,986.

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](http://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 thirty 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

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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

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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, self-confidence 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.

## ACADEMIC 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;

Completed a first-year seminar; this should normally be completed by the end of the first semester and must be completed by the end of the second semester in college;

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 Difference.*** 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 40. Interdisciplinary majors are described beginning on page 220.

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 143-144.

## 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
- Art History and Visual Arts
- Chemical Physics
- Computer Science and Mathematics
- English and Theater



## THE CURRICULUM

Eurasian and East European Studies  
Mathematics and Economics  
Mathematics and Education

For complete descriptions of these interdisciplinary majors, see pages 220–224. 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  | Gay and Lesbian Studies*                           |
| Anthropology  | Gender and Women's Studies                         |
| Art (Art History or Visual Arts)  | German   |
| Asian Studies (Asian Studies, Chinese,<br>or Japanese)                  | Government and Legal Studies                       |
| Biology   | History  |
| Chemistry   | Latin American Studies                             |
| Cinema Studies*   | Mathematics  |
| Classics (Archaeology, Classical Studies,<br>Classics, Greek, or Latin) | Music  |
| Computer Science  | Philosophy   |
| Dance*  | Physics  |
| Earth and Oceanographic Science   | Psychology   |
| Economics (Economics or<br>Economics and Finance)                       | Religion   |
| Education* (Education Studies<br>or Teaching)                           | Romance Languages<br>(French, Italian, or Spanish) |
| English   | Russian  |
| Environmental Studies   | Sociology  |
|   | Theater*   |

\* *These departments and programs offer only a minor.*

# ACADEMIC STANDARDS AND REGULATIONS

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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 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

## ACADEMIC 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:

2014:

|                |                 |
|----------------|-----------------|
| Rosh Hashanah* | September 24-26 |
| Yom Kippur*    | October 3-4     |

2015:

|                            |            |
|----------------------------|------------|
| Martin Luther King Jr. Day | January 19 |
| First Day of Passover      | April 3    |
| Good Friday                | April 3    |
| Easter                     | April 5    |

*\* Holidays begin at sunset 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](http://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 two conditions have been met: (1) the student has the necessary qualifications, including but not limited to the course prerequisites; (2) the student and instructor have agreed on how missed class material and assignments will be managed. An instructor may choose to override the class enrollment limit and allow additional students to register. 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 college-level 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

## ACADEMIC STANDARDS AND REGULATIONS

in a fine arts, music, or creative writing project shall be numbered 4000–4028 {401–404}. If a student, in consultation with a department, intends to pursue honors, the student will register for an appropriate honors project course number, 4050–4079 {451–452}. If a department determines that a project does not meet the standards for honors, the course number(s) for one or two semesters of independent study will be changed to 4000–4028 {401–404}. 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 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. No more than 2 courses per semester can be taken Credit/D/Fail after the required 32 credits are earned. 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](http://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. Students must complete an honors project to be eligible for departmental or program honors. If a student, in consultation with a department, intends to pursue honors, the student will register for an appropriate honors project course number, 4050–4079 {451–452}. All written work accepted as fulfilling the requirements for departmental honors is to be deposited in the College Library. 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 and the course number will be changed to 4000–4028 {401–404}.

## 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.



## DEFICIENCY 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 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 s/he no longer requires a hospital setting but may still need more support than 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, s/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, 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 year-long 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, 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 credit-hours 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

## ACADEMIC STANDARDS AND REGULATIONS

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.



# SPECIAL ACADEMIC PROGRAMS

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## **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, political, and environmental issues involving Arctic lands, seas, 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 David B. Carlon, Associate Professor of Biology and Director of the Bowdoin College Coastal Studies Center, 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 College of Engineering (open only to Maine residents), the School of Engineering and Applied Science of Columbia University, the California Institute of Technology (Caltech), and the Thayer School of Engineering at Dartmouth College.

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 (three years at Bowdoin and two years at the other institution, called a 3-2 option). Columbia also offers a 4-2 option, which may be of interest to some students.

Caltech invites highly qualified students 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, both conferred 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.

Once a student decides to pursue a dual degree, the student must receive departmental permission and then meet with the Associate Registrar and submit a declaration of intent to pursue this program to the registrar's office when applying to the subsequent institution.

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. In addition, the student must meet with the Associate Registrar once departmental permission is received and submit a declaration of intent to pursue this program to the registrar's office when applying to Columbia University.

## Teaching

Students interested in teaching in schools or enrolling in graduate programs in education should discuss their plans with faculty in the Department of Education. Because the coursework leading to the teaching minor, along with a concentration in a core secondary school subject area (English, world language, life science, mathematics, physical science, or social studies), is necessary for certification, it is strongly recommended to begin planning early in order to reach your goals. (For information on the Bowdoin Teacher Scholars program, see pages 128–129.) Bowdoin Career Planning offers resources for students interested in education through career counseling and a small library that contains information on teaching; in-depth information about summer and academic year internships, volunteer opportunities with youth, and public and private school job openings can be found on the career planning website: [careerplanning.bowdoin.edu/education/](http://careerplanning.bowdoin.edu/education/).

## OFF-CAMPUS STUDY

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**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 registration of intent 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](http://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

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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 2014-2015; 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.

† 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 are now used. (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           | Advanced independent studies, advanced collaborative study, senior projects, and honors projects |
| {401–405, 451–452}  |  |

## AFRICANA STUDIES

Tess Chakkalalal, *Program Director*

Glynis Wears-Siegel, *Program Coordinator*

*Professor:* Olufemi Vaughan (History)

*Associate Professors:* Tess Chakkalalal (English), Brian Purnell\* (History)

*Assistant Professor:* Judith S. Casselberry

*Contributing Faculty:* Ericka A. Albaugh, Dana Byrd, Guy Mark Foster †, David Gordon †, David Hecht, Scott MacEachern, Tracy McMullen, Elizabeth Muther, H. Roy Partridge Jr., Patrick J. Rael, 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:

1. Introduction to Africana Studies (Africana Studies 1101 {101})
2. Intermediate Seminar in Africana Studies (2000-2999)
3. Senior Seminar in Africana Studies (3000-3999)
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 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} or 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:

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 159–172.

**1010 {10} b. Racism.** Fall 2014. Roy Partridge. (Same as Sociology 1010 {10}.)

**1012 {12} c. Affirmative Action and United States Society.** Fall 2015. Brian Purnell.

**1015 c. Women and the Blues.** Fall 2014. Susan M. Taffe Reed. (Same as Gender and Women's Studies 1030 and Music 1015.)

**1019 c. Holy Songs in a Strange Land.** Spring 2015. Judith Casselberry. (Same as Music 1011.)

**1026 {16} c. Fictions of Freedom.** Fall 2014. Tess Chakkalalal. (Same as English 1026 {26}.)

**[1040 {13} c. From Montezuma to Bin Laden: Globalization and Its Critics.** (Same as History 1040 {16}.)]

### Introductory, Intermediate, and Advanced Courses

**1101 {101} c - ESD. Introduction to Africana Studies.** Every fall. Fall 2014. Judith Casselberry.

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}.)

**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 2015. David M. 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 2017. Tracy McMullen.

A socio-cultural, historical, and analytical introduction to jazz music from the turn of the twentieth century to around 1950. Includes some concert attendance. (Same as Music 1281 {121}.)

**1592 {159} c - ESD, VPA. History of Hip-Hop.** Spring 2015. Tracy McMullen.

Traces the history of hip-hop culture (with a focus on rap music) from its beginnings in the Caribbean through its transformation into a global phenomenon. Explores constructions of race, gender, class, and sexuality in hip-hop's production, promotion, and consumption, as well as the ways in which changing media technology and corporate consolidation influenced the music. Artists/bands investigated will include Grandmaster Flash, Public Enemy, MC Lyte, Lil' Kim, Snoop Dog, Eminem, Nicki Minaj, and DJ Spooky. (Same as Gender and Women's Studies 1592 {140} and Music 1292 {140}.)

**2051 b - ESD. Race, Citizenship, and Political Behavior.** Fall 2014. Cory Charles Gooding.

Analyzes the ability of race and ethnicity to restrict access to citizenship rights and produce dynamic forms of political behavior that range from micro- to macro-politics. The course considers the traditional forms of political behavior (e.g., voting) as well as those that function outside of the traditional institutions of governmental influence. Specific forms of political behavior discussed include “foot-dragging” (failure to act with the necessary promptness), sports, music, protests, and voting. (Same as Government 2051.)

**2052 b - ESD. Race, Ethnicity, and Politics.** Spring 2015. Cory Charles Gooding.

Examines the impact of race and ethnicity on American politics. Students study differences in political behavior (e.g., levels of activism and group consciousness) and political outcomes (e.g., in education and criminal justice) across racial and ethnic groups, including Native Americans, Black Americans, Latinos, Asian Americans, and White Americans. The focus on group identities is a major feature. How do racial and ethnic group identities form, and how are they sustained? Discusses this in both the historical and contemporary sense. These questions inform discussions about the impact of group identities on political outcomes. Is a strong racial or ethnic identification a key driver of political behavior? Why and to what effect? (Same as Government 2052.)

**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

2016. 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}.)

**2142 c. Reconstruction and Reunion.** Spring 2015. Tess Chakkalakal and Patrick Rael.

An interdisciplinary introduction from the perspectives of art history, literary history, and history to the political, economic, and social questions arising from American Reconstruction (1866-1877) and Reunion (1878-1900) following the Civil War between the North and South. Readings delve into a wide array of primary and secondary sources including photographs, novels, poetry, and government documents to understand the fierce political debates rooted in Reconstruction that continue to occupy conceptions of America. (Same as English 2900 and History 2142.)

**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



## COURSES OF INSTRUCTION

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, Meshell 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}.)

**[2210 {210} c - IP. Beyond Capoeira: History and Politics of Afro-Brazilian Culture.** (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 US 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. Uses David Simon's epic series *The Wire* as a critical source on postindustrial urban life, politics, conflict, and economics to cover 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.]**

**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.** Fall 2014. Scott MacEachern.

Introduction to the traditional patterns of livelihood and social institutions of African peoples. Following a brief overview of African geography, habitat, and cultural history, lectures and readings cover a representative range of types of economy, polity, and social organization, from the smallest hunting and gathering societies to the most complex states and empires. Emphasis upon understanding the nature of traditional social forms. Changes in African societies in the colonial and post-colonial periods are examined but are not the principal focus. (Same as Anthropology 2533 {233}.)

Prerequisite: One course in anthropology or Africana Studies 1101 {101}.

**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 Twentieth-Century Christianity.** (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.** Fall 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 US 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: Religion, Race, and Gender in America.** Spring 2015. Judith Casselberry.

Examines the ways religion, race, and gender shape people's lives from the nineteenth century into contemporary times in America, with particular focus on black communities. Explores issues of self-representation, memory, material culture, embodiment, and civic and political engagement through autobiographical, historical, literary, anthropological, cinematic, and musical texts. (Same as Gender and Women's Studies 2270 {270} and Religion 2271 {271}.)

**2281 c. History of Jazz II.** Fall 2014. Tracy McMullen.

Provides a socio-cultural, historical, and analytical introduction to jazz music from around 1950 to the present. Addresses the history of jazz in terms of changes in musical techniques and social values and approaches music as a site of celebration and struggle over relationships and ideals. Builds ability to hear differences among performances and styles. Enriches knowledge of US history as it affects and is affected by musical activities and studies the stakes and motives behind the controversies and debates that have often surrounded various styles of African American music. (Same as Music 2281.)

Prerequisite: Music 1281 {121} (same as Africana Studies 1581 {121}.)

**2364 {264} c - ESD, IP. Conquest, Colonialism, and Independence: Africa since 1880.** Spring 2015. Olufemi Vaughan.

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.** Spring 2016. David M. Gordon.

Examines the history of East Africa with special focus on the interactions between East Africans and the Indian Ocean world. Begins with African societies prior to Portuguese conquest through Omani colonialism and the spread of slavery across East Africa, Madagascar, and Mauritius. Addresses the onset of British, Italian, and German colonialism; rebellions against colonialism, including Mau Mau in Kenya; and post-colonial conflicts, including the Zanzibar revolution of 1964. Concludes with the rise of post-colonial Tanzania, Kenya, Mozambique, Madagascar, and Somalia, and challenges to their sovereignty by present-day Indian Ocean rebels, such as the Somali pirates. (Same as History 2365 {265}.)

**2380 {247} c - IP. Christianity and Islam in West Africa.** Fall 2014. 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 2014. 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. Increases cultural understanding prior to study abroad in French-speaking regions. (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 2015. 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.

**2502 c - ESD, VPA. Introduction to Black Performance Studies.** Fall 2014. Christina Knight.

What does it mean to say that we “perform” our identities? What role can performance play in the fight for racial and social justice? What role has performance played in shaping the history of black Americans, a people long denied access to literacy? Performance studies—an

interdisciplinary field devoted to the study of a range of aesthetic practices—offers insight into such questions. Investigates various performances, including contemporary plays, movies and television, dance, and social media. Examines the relationship between identities like race, gender, class, and performance as well as the connection between performance onstage and everyday life. (Same as Dance 2503 and Theater 2503.)

**2530 {222} b - IP. Politics and Societies in Africa.** Fall 2014. Ericka A. Albaugh.

Surveys societies and politics in sub-Saharan Africa, seeking to understand the sources of current conditions and the prospects for political stability and economic growth. Looks briefly at pre-colonial society and colonial influence on state-construction in Africa and concentrates on three broad phases in Africa's contemporary political development: independence and consolidation of authoritarian rule; economic decline and challenges to authoritarianism; democratization and civil conflict. Presumes no prior knowledge of the region. (Same as Government 2530 {222}.)

**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 Monthly*, *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}.)

**2600 {261} c. African American Poetry.** Fall 2014. Elizabeth Muther.

African American poetry as counter-memory—from Wheatley to the present—with a focus on oral traditions, activist literary discourses, trauma and healing, and productive communities. Special emphasis on the past century: dialect and masking; the Harlem Renaissance; Brown, Brooks, and Hayden at mid-century; the Black Arts Movement; black feminism; and contemporary voices. Note: Fulfills the literature of the Americas requirement for English majors. (Same as English 2600 {261}.)

**2604 c. African American Literature and Visual Culture.** Spring 2015. Elizabeth Muther.

Explores creative collaborations and cross currents in African American literary and visual arts over the past century. Considers the problems of minstrelsy, masking, and caricature—as well as instruments of militant image-making in both literary and visual forms. Topics of special interest include uplift and documentary photography; modernist resistance languages of the Harlem Renaissance; shadows, silhouettes, and invisibility; comic strips and graphic narratives; and contemporary images—prints, texts, and illustrations—that introduce alternative socio-political allegories. Taught in conjunction with a special exhibition at the Bowdoin College Museum of Art. (Same as English 2604.)

[2621 {238} c. **Reconstruction.** (Same as History 2621 {238}.)]

**2700 {244} c - ESD. Martin, Malcolm, and America.** Spring 2015. Brian Purnell.

Seminar. Examines the lives and thoughts of Martin Luther 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}.)

**2735 b - IP. Contemporary Haiti.** Spring 2015. Greg Beckett.

Examines contemporary Haitian culture and society in the context of a prolonged series of crises and international interventions. Focuses on the democratic transition of the late twentieth century and the recent humanitarian intervention in the wake of a series of natural disasters. Considers the historical roots of the Haitian crisis with a particular focus on Haiti's marginalization within the world system. Explores the relationship between Haiti and the international community, especially the role of nongovernmental organizations, humanitarian organizations, and international institutions in the everyday lives of Haitians. (Same as Anthropology 2735 and Latin American Studies 2735.)

Prerequisite: One of the following: Anthropology 1101 {101}, Sociology 1101 {101}, or Africana Studies 1101 {101}.

**2821 {269} c - ESD, IP. After Apartheid: South African History and Historiography.** Spring 2016. David M. Gordon.

Seminar. Investigates the diverse representations and uses of the past in South Africa. Begins with the difficulties in developing a critical and conciliatory version of the past in post-apartheid South Africa during and after the Truth and Reconciliation Commission. Turns to diverse historical episodes and sites of memory from the Great Trek to the inauguration of Nelson Mandela to explore issues of identity and memory from the perspectives of South Africa's various peoples. (Same as History 2821 {269}.)

**2822 {272} c - IP. Warlords and Child Soldiers in African History.** Fall 2015. David M. Gordon.

Seminar. Examines how gender, age, religion, and race have informed ideologies of violence by considering various historical incarnations of the African warrior across time, including the hunter, the military slave, the revolutionary, the mercenary, the soldier, the warlord, the holy warrior, and the child soldier. Focuses on how fighters, followers, African civilians, and the international community have imagined the "work of war" in Africa. Readings include scholarly analyses of warfare, warriors, and warrior ideals alongside memoirs and fictional representations. (Same as History 2822 {272}.)

**2840 {213} c. Transnational Africa and Globalization.** Fall 2014. 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.** (Same as History 2841 {216}.)]

**2862 c. The Haitian Revolution and its Legacy.** Fall 2014. Allen Wells.

Seminar. Examines one of the most neglected revolutions in history and arguably one of its most significant. The first half of the course treats the Revolution's causes and tracks its evolution between 1791-1804. The second part studies its aftermath and its impact on Haiti,

the Caribbean, Latin America, Europe, Africa, and the United States. (Same as History 2862 and Latin American Studies 2162.)

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

**[2901 b - IP. Archaeology of the Black Atlantic.** (Same as Anthropology 2901.)]

**2970–2973 {291–294}. Intermediate Independent Study in Africana Studies.** The Program.

**2999 {299}. Intermediate Collaborative Study in Africana Studies.** The Program.

**3004 {326} c. African American Literature and the Law.** Fall 2014. Tess Chakkalal.

Examines the intersections between literature and law through works of African American literature. Investigates the influence of landmark legal cases—Dred Scott, Plessy v. Fergusson, Brown v. Board of Education, Loving v. Virginia—on the production and dissemination of particular works of American and African American literature. Works by Charles Chesnut, Ralph Ellison, Pauline Hopkins, Harriet Beecher Stowe, and Frederick Douglass are among those considered. Note: Fulfills the literature of the Americas requirement for English majors. (Same as English 3004 {326}.)

Prerequisite: One course numbered 2000–2969 {200–289} in English or Africana studies.

**3140 {336} c. Research in Nineteenth-Century United States History.** Spring 2016. Patrick Rael.

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

Prerequisite: One course in history.

**[3211 c. Bringing the Female Maroon to Memory: Female Marronage and Douboutism in the Caribbean.]**

**[3306 c. The Common Good? A History of International Aid.** (Same as History 3360.)]

**3570 b. Advanced Seminar in African Politics.** Spring 2015. Ericka A. Albaugh.

The continent of Africa boasts some of the most rapidly growing economies in the world, but the proportion of people living in poverty remains higher than in any other region. Nearly all African states experimented with democratic reform in the last two decades, but many leaders have become adept at using political institutions to entrench their power. Most large-scale civil wars have ended, but violence remains. Explores the economic, political, and security challenges of this continent of contrasts. Topics include poverty and economic growth, the “resource curse,” democratic institutions, civil society, ethnic relations, state failure, foreign assistance, and intervention. (Same as Government 3570.)

Prerequisite: Government 2530 {222} (same as Africana Studies 2530 {222}) or History 2364 {264} (same as Africana Studies 2364 {264}); or permission of the instructor.

**[3600 c. Race and Visual Representation in American Art, 1619-1999.** (Same as Art History 3600.)]

**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 2014. 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 2015. 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 2014. 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 2015. 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

Pamela M. Fletcher, *Department Chair and Director, Art History Division*

James Mullen, *Director, Visual Arts Division*

Martha R. Janeway, *Coordinator, Art History Division*

Alicia Menard, *Coordinator, Visual Arts Division*

*Professors:* Pamela M. Fletcher, Mark C. Wethli\*\*

*Associate Professors:* Michael Kolster\*, James Mullen, Stephen Perkinson, Susan E. Wegner

*Assistant Professors:* Jacqueline Brown, Dana E. Byrd, Carrie Scanga, Peggy Wang (Asian Studies)

*Lecturer:* Natasha Goldman

*Sculptor in Residence:* John B. Bisbee

*Visiting Faculty:* Susan Bakewell, Michelle Oosterbaan, Accra Shepp

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 Archaeology 1101 {101}), 2100 {210} (same as Archaeology 1102 {102}), 2130 {213}, 2140 {214}, 2150 {215}, or 2260 {226};
3. One course from Art History 2220 {222}, 2230 {223}, 2240 {224}, or 2320 {232};
4. One course from Art History 2420 {242}, 2520 {252}, 2540 {254}, 2620 {262}, or 2640 {264};
5. One additional intermediate course (numbered 2000–2969 {200–289});
6. Two advanced seminars (numbered 3000–3999 {300–399}); and
7. 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 220.

### Requirements for the Minor in Art History

The minor consists of five courses, excluding first-year seminars. Required courses are Art History 1100 {100}; two intermediate courses (numbered 2000–2969 {200–289}); one advanced course (numbered 3000–3999 {300–399}); and one additional art history course



## COURSES OF INSTRUCTION

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 159–172.

**1010 {11} c. Visual Culture and the Holocaust.** Fall 2014. Natasha Goldman.

**1011 c. Why Architecture Matters.** (Same as Environmental Studies 1011.) Fall 2014. Jill Pearlman.

**1019 {19} c. Representing the Modern Artist in Word and Image.** Fall 2014. Susan B. Bakewell.

[1026 {26} c. **Art and the Public Sphere.**]

### Introductory, Intermediate, and Advanced Courses

**1100 {100} c. Introduction to Art History.** Fall 2014. Pamela Fletcher, Stephen Perkinson, and Peggy Wang.

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.

**1300 {130} c - IP. Introduction to the Arts of Ancient Mexico and Peru.** Spring 2015. 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 Latin American Studies 1300 {130}.)

**2090 {209} c. Greek Archaeology.** Fall 2015. 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. 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.]**

**2140 {214} c - VPA. The Gothic World.** Spring 2015. Stephen Perkinson.

Introduces students to art produced in Europe and the Mediterranean from the twelfth through the early fifteenth century. Following a general chronological sequence, investigates the key artistic monuments of this period in a variety of media, including architecture, painting, manuscript illumination, stained glass, sculpture, and the decorative arts. Explores a particular theme in each class meeting through the close analysis of a single monument or closely related set of monuments as well as those that students may encounter in their future studies.

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

**2200 {220} c - IP, VPA. Art and Revolution in Modern China.** Fall 2014. Peggy Wang.

Examines the multitude of visual expressions adopted, re-fashioned, and rejected, from China's last dynasty (1644-1911) through the Cultural Revolution (1966-1976). Major themes include the tension between identity and modernity, Westernization, the establishment of new institutions for art, and the relationship between cultural production and politics. Formats studied include ink painting, oil painting, woodcuts, advertisements, and propaganda. Compares other cultures to interrogate such questions as how art mobilizes revolution. (Same as Asian Studies 2200 {220}.)

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

**2210 c. From Mao to Now: Contemporary Chinese Art.** Spring 2015. Peggy Wang.

Examines the history of contemporary Chinese art and cultural production from Mao's Cultural Revolution (1966–1976) until today. Traces experiments in oil, ink, performance, installation, video, and photography and considers these media and formats as artistic responses to globalization, capitalist reform, urbanization, and commercialization. Tracks themes such as art and consumerism, national identity, global hierarchies, and political critique. Readings include primary sources such as artist's statements, manifestoes, art criticism, and curatorial essays. Not open to students who have credit for Art History 320 or Asian Studies 311. (Same as Asian Studies 2201.)

**2220 {222} c - VPA. Art of the Italian Renaissance.** Spring 2015. Susan Wegner.

A survey of the painting, sculpture, and architecture of Italy in the fourteenth, fifteenth, and sixteenth centuries, with emphasis on major masters: Giotto, Masaccio, Donatello, Brunelleschi, Alberti, Botticelli, Leonardo da Vinci, Raphael, Titian, and Michaelangelo.

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

**[2230 {223} c - VPA. The Arts of Venice.]**

[2240 {224} c - VPA. Mannerism.]

**2260 {226} c - VPA. Northern European Art of the Fifteenth and Sixteenth Centuries.**

Fall 2014. Stephen Perkinson.

Surveys the painting of the Netherlands, Germany, and France. Topics include the spread of the influential naturalistic style of Campin, van Eyck, and van der Weyden; the confrontation with the classical art of Italy in the work of Dürer and others; the continuance of a native tradition in the work of Bosch and Bruegel the Elder; the changing role of patronage; and the rise of specialties such as landscape and portrait painting.

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

**2320 {232} c. Art in the Age of Velázquez, Rembrandt, and Caravaggio.** Fall 2014. Susan Wegner.

The art of seventeenth-century Europe. Topics include the revolution in painting carried out by Caravaggio, Annibale Carracci, and their followers in Rome; the development of these trends in the works of Rubens, Bernini, Georges de la Tour, Poussin, and others; and the rise of an independent school of painting in Holland. Connections between art, religious ideas, and political conditions are stressed.

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

**2420 {242} c. Realism and Its Discontents: European Art 1839-1900.** Fall 2014. Pamela Fletcher.

A survey of European art from the advent of photography to the turn of the century. The nineteenth century witnessed an explosion of urban growth, increasing political and economic power for the middle and working classes, and revolutionary scientific and technological discoveries. How did the visual arts respond to and help shape the social forces that came to define Western modernity? Questions to be addressed include: What was the impact of photography and other technologies of vision on painting's relation to mimesis? How did new audiences and exhibition cultures change viewers' experiences and expectations of art? How did artists respond to the new daily realities of modern urban life, including the crowd, the commodity, railways, and electric light? Artists discussed include Courbet, Frith, Manet, Ford Madox Brown, Julia Margaret Cameron, Whistler, Ensor, Gauguin, and Cézanne.

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

**2430 {243} c - VPA. Modern Architecture: 1750 to 2000.** Spring 2015. Jill Pearlman.

Examines major buildings, architects, architectural theories, and debates during the modern period, with a strong emphasis on Europe through 1900 and both the United States and Europe in the twentieth century. Central issues of concern include architecture as an important carrier of historical, social, and political meaning; changing ideas of history and progress in built form; and the varied architectural responses to industrialization. Attempts to develop students' visual acuity and ability to interpret architectural form while exploring these and other issues. (Same as Environmental Studies 2431 {243}.)

**2440 {244} c. Shoot, Snap, Instagram: A History of Photography in America.** Spring 2015. Dana Byrd.

A survey of photography made and experienced in the United States from the age of daguerreotypes until the era of digital image processing. Addresses the key photographic movements, works, practitioners, and technological and aesthetic developments while also considering the social, political, cultural, and economic contexts for individual photographs. Photographers studied include Watkins, Bourke-White, Weegee, and Weems. Readings of primary sources by photographers and critics such as Stieglitz, Sontag, Abbott, and Benjamin bolster close readings of photographs. Builds skills of discussing, writing, and seeing American photography. Incorporates study of photography collections across the Bowdoin College campus.

Prerequisite: Art History 1100 {100} or permission of the instructor.

**[2620 {262} c. American Art I: Colonial Period to the Civil War.]**

**2640 {264} c. American Art from the Civil War to 1945.** Fall 2014. Dana Byrd.

A survey of American architecture, sculpture, painting, and photography from the Civil War to World War II. Emphasis on understanding art in its historical and cultural context. Issues to be addressed include the expatriation of American painters, the conflicted response to European modernism, the pioneering achievements of American architects and photographers, the increasing participation of women and minorities in the art world, and the ongoing tension between native and cosmopolitan forms of cultural expression. Works with original objects in the Bowdoin College Museum of Art.

**[2710 c - IP, VPA. Power and Politics in Pre-Modern Chinese Art.** (Same as Asian Studies 2020.)]

**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.

**3160 {316} c. Memory, Mourning, and the Macabre: Visualizing Death in Late Medieval and Early Modern Europe.** Spring 2015. Stephen Perkinson.

In pre-modern Europe, people lived in the shadow of death. This was true in literal terms—mortality rates were high—but also in terms of art: the imagery of the period was saturated with images of death, dying, and the afterlife. Examines how images helped people confront profound questions about death: What happens to the “self” at death? What is the relationship between the body and the soul? What responsibilities do the living have to the dead? Addresses these issues through study of tomb sculptures, monumental paintings of the Last Judgment, manuscripts containing accounts of journeys to the afterlife, prayer beads featuring macabre imagery, and other related items.

[3320 {332} c. **Painting and Society in Spain: El Greco to Goya.**]

**3330 {333} c. Studies in Seventeenth-Century Art: Caravaggio and Artemisia Gentileschi.** Fall 2014. Susan Wegner.

Contrasts two artists—one male, one female—whose powerful, naturalistic styles transformed European painting in the seventeenth century. Starting with a close examination of the artists' biographies (in translation), focuses on questions of the artists' education, artistic theory, style as a reflection of character, and myths and legends of the artists' lives. Also examines the meanings of seventeenth-century images of heroic women, such as Esther, Judith, and Lucretia, in light of social and cultural attitudes of the times.

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

[3550 {355} c. **Modernism and the Nude.** (Same as Gender and Women's Studies 3350 {355}.)]

[3600 c. **Race and Visual Representation in American Art, 1619-1999.**]

**3800 c. The Thing.** Fall 2014. Dana Byrd.

The study of "things," or material culture, has emerged as a multidisciplinary umbrella for the understanding of everyday life. Material culture encompasses everything we make or do—the clothes we wear, the houses we occupy, the art we hang on our walls, even the way we modify our bodies. Explores object-based approaches to American culture through hands-on study of things such as grave markers, great chairs, and girandoles in the Bowdoin College Museum of Art and the historic house museums of Brunswick. Readings include primary sources and scholarly analyses of objects and assignments hone descriptive, analytical, and interpretive writing skills.

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

**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}; two of three courses: 1201 (170), 1401 (180), and 1601 (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}, 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 2014. James Mullen and Michelle Oosterbaan. Spring 2015. James Mullen and The Department.

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 2014 and Spring 2015. 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 2014. Michelle Oosterbaan. Spring 2015. James Mullen.

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 2014. Accra Shepp. Spring 2015. Michael Kolster.

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 35mm format. Students must provide their own 35mm non-automatic camera.

**1601 {195} c - VPA. Sculpture I.** Fall 2014 and Spring 2015. Jackie Marie Brown.

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.** Spring 2015. The Department.

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}.

**2110 c - VPA. Seashore Digital Diaries.** Fall 2014. David Conover.

Exploration of techniques and principles of digital multimedia as tools of inquiry at the seashore. Through assigned and self-designed independent and group projects, studies the seashore as a zone of extremity and movement, in light of its historical and contemporary contexts within the visual arts and film. Techniques introduced include time-lapse sequences of seascape and aquaria, portraits of characters on the working waterfront, and motion graphic visualizations. Seminar discussions, biweekly field trips to the seashore, and class critiques. (Same as Environmental Studies 2461 and Film 2110.)

Prerequisite: one course in film studies, environmental studies or visual arts.

**2120 c - VPA. Science to Story, Digital, and Beyond.** Spring 2015. David Conover.

Examines the translation of science into stories and digital media that successfully engage public attention. What enables ordinary citizens to form an understanding consistent with the best available scientific evidence? What gets in the way of forming such an understanding? What communication strategies and formats successfully move science to civic society? Case studies include translation of the following areas of climate change science: synthetic biology and algae as biofuel, ocean acidification, rising sea levels, and super storms. Class reading and writing assignments and seminar discussions lead to development of group presentations and production of digital media. (Same as Environmental Studies 2463 and Cinema Studies 2120.)

Prerequisite: one course in cinema studies, environmental studies or visual arts.

**2201 {270} c. Printmaking II.** 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.**]

**2302 {272} c. Landscape Painting.** Fall 2014. James Mullen

A continuation of principles introduced in Visual Arts 1301 (160), with an emphasis on landscape painting. Studio projects investigate various relationships to nature through painting at a variety of sites and through the changing seasons of the coastal landscape. Painting activity is augmented with readings and presentations to offer a historical perspective on different languages, approaches, and philosophies in relation to the pictorial interpretation of landscape experience.

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

**2401 {280} c. Large Format Photography.** Fall 2014. Accra Shepp.

Reviews an expansion of concepts and techniques fundamental to black-and-white photography, with exploration of image-making potentials of different formats, such as 35mm and view cameras. Seminar discussions and field and laboratory work. Students must provide their own non-automatic 35mm camera.

Prerequisite: Visual Arts 1401 {180} or permission of the instructor.

**2402 {282} c - VPA. Photography and Color.** Spring 2015. Michael Kolster.

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 35mm to the 4x5, 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}.

**2601 {285} c. Sculpture II. Fall 2014.** John Bisbee. Spring 2015. Jackie Marie Brown.

A continuation of principles introduced in Visual Arts 1601 (195), with particular emphasis on independent projects.

Prerequisite: Visual Arts 1601 {195}.

**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.]

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

[3602 c. Make. Believe. Sculpture.]

[3800 {383} c. Art and Time.]

[3801 {310} c. Narrative Structures.]

**3804 {365} c. Public Art.** Fall 2014. John Bisbee.

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 {200–289} in visual arts.

**3902 {395} c. Senior Studio.** Every spring. Spring 2015. Carrie Scanga.

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 course numbered 3000–3999 {300–399} 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.



## ASIAN STUDIES

Vyjayanthi Ratnam Selinger, *Program Director*

Suzanne M. Astolfi, *Program Coordinator*

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*Visiting Faculty:* Tristan Grunow (History), Sara Y. T. Mak (Government), Carmen Wickramagama (Religion)

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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 SITTA 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 from two 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 be either an advanced language class, or a literature, film, or culture course in the area of language study, including a first-year seminar. The roster of qualified classes may change, so students should consult with their advisors. 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,

## COURSES OF INSTRUCTION

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 159–172.

**1006 c. China Encounters the West.** Fall 2014. Leah Zuo. (Same as History 1036.)

**1013 c. Japan in the World.** Fall 2014. Tristan Grunow. (Same as History 1033.)

**1043 {23} c. East Asian Genre Cinema: Action, Anime, and Martial Arts.** Fall 2014 and Fall 2016. Shu-chin Tsui. (Same as Film Studies 1043 {23}.)

**1046 {20} b. Global Media and Politics.** Fall 2014. Henry C. W. Laurence. (Same as Government 1026 {20}.)

### Introductory, Intermediate, and Advanced Courses

**1175 c - IP. China's Path to Modernity: 1800 to Present.** Spring 2015. 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 1420.)

**[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.** (Same as History 2780 {276}.)]

**[2005 {273} c - IP. Science, Technology, and Society in China.** (Same as History 2781 {260}.)]

**[2010 {275} c - IP. The Emergence of Chinese Civilization.** (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}.)

[2020 c - IP, VPA. **Power and Politics in Pre-Modern Chinese Art.** (Same as Art History 2710.)]

**2060 {227} b - IP. Contemporary Chinese Politics.** Spring 2015. Sarah Y. T. Mak.

Examines the history and politics of China in the context of a prolonged revolution. Begins by examining the end of imperial rule, the development of Modern China, socialist transformations, and the establishment of the PRC. 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. The adaptation by the Communist Party to these changes and the prospects of democratization are also examined. Topics include political participation and civil society, urban and rural China, gender in China, and the effects of post-Mao economic reform. (Same as Government 2440 {227}.)

**2071 {252} c - IP. From Imperial Palace to Bird's Nest: Visual Culture in Modern China.** Spring 2016 and Spring 2018. Shu-chin Tsui.

Explores cultural trends in contemporary China with post-socialist conditions 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. Topics in Chinese Cinema.** Fall 2015 and Fall 2017. 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 benefit most by bringing both an open mind toward non-Western cultural texts and a critical eye for visual art. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Cinema Studies 2254 {254}.)

**2073 {266} c - IP. Chinese Women in Fiction and Film.** Spring 2015 and Spring 2017. 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 social-political 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. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Cinema Studies 2266 {266} and Gender and Women's Studies 2266 {266}.)

**2075 c - IP, VPA. Ecocinema: China's Ecological and Environmental Crisis.** Spring 2015 and Spring 2017. Shu-chin Tsui.

Examines how China's economic development has caused massive destruction to the natural world and how environmental degradation affects the lives of ordinary people. An ecological and environmental catastrophe unfolds through the camera lens in feature films and documentaries. Central topics include the interactions between urbanization and migration,

humans and animals, eco-aesthetics and manufactured landscapes, local communities and globalization. Considers how cinema, as mass media and visual medium, provides ecocritical perspectives that influence ways of seeing the built environment. The connections between cinema and environmental studies will enable students to explore across disciplinary as well as national boundaries. *Note.* Fulfills the film theory requirement for cinema studies minors. (Same as Environmental Studies 2475 and Cinema Studies 2075.)

**2200 {220} c - IP, VPA. Art and Revolution in Modern China.** Fall 2014. Peggy Wang.

Examines the multitude of visual expressions adopted, re-fashioned, and rejected, from China's last dynasty (1644-1911) through the Cultural Revolution (1966-1976). Major themes include the tension between identity and modernity, Westernization, the establishment of new institutions for art, and the relationship between cultural production and politics. Formats studied include ink painting, oil painting, woodcuts, advertisements, and propaganda. Compares other cultures to interrogate such questions as how art mobilizes revolution. (Same as Art History 2200 {220}.)

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

**2201 c. From Mao to Now: Contemporary Chinese Art.** Spring 2015. Peggy Wang.

Examines the history of contemporary Chinese art and cultural production from Mao's Cultural Revolution (1966-1976) until today. Traces experiments in oil, ink, performance, installation, video, and photography and considers these mediums and formats as artistic responses to globalization, capitalist reform, urbanization, and commercialization. Tracks themes such as art and consumerism, national identity, global hierarchies, and political critique. Readings include primary sources such as artist's statements, manifestoes, art criticism, and curatorial essays. Not open to students who have credit for Art History 320 (same as Asian Studies 311). (Same as Art History 2210.)

**[2230 {230} c - ESD, IP. Imperialism, Nationalism, Human Rights.** (Same as History 2344 {280}.)]

**2270 {246} c - IP. The Fantastic and Demonic in Japanese Literature.** Spring 2016. Vjayanthi 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. (Same as Gender and Women's Studies 2236.)

**2271 c - IP. Samurai in History, Literature, and Film.** Spring 2015. Vjayanthi Selinger.

An examination of representations of samurai in historical, literary, and filmic texts from the twelfth to the twentieth century. Topics include the changing understanding of "the way of the warrior," the influence of warrior culture on the arts in medieval Japan and the modern

appropriation of the martial arts. Analyzes the romanticization of samurai ethos in wartime writings and the nostalgic longing for a heroic past in contemporary films. Focus on the reimagining of the samurai as a cultural icon throughout Japanese history and the relationship of these discourses to gender, class, and nationalism. Readings include the *Tale of the Heike*, *Legends of the Samurai*, *Hagakure and Bushido: The Soul of Japan*. Films may include *Genroku Chushingura*, Akira Kurosawa's *Seven Samurai*, and the animation series *Samurai 7*.

**2290 c. Japan: Past and Present.** Fall 2014. Tristan Grunow.

Surveys Japan's place in the world by exploring its historical evolution from the emergence of human civilization in the Japanese islands to today, emphasizing the fluid overseas contacts and interactions that have shaped Japanese culture. Topics include: the development of centralized government in the Heian Period; the rise and fall of warrior rule in Medieval Japan; the revolutionary political, and social changes accompanying the Meiji Restoration and Japan's integration into the global system; imperialism, militarism, and war in the early twentieth century; reconstruction and rejuvenation in the postwar; and Japan's recent re-emergence on the global stage. (Same as History 2290.)

**2300 {201} c - ESD, IP. Literature of World War II and the Atomic Bomb in Japan: History, Memory, and Empire.** Fall 2014. Vjayanthi 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 2017. Vjayanthi 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 2014 and Fall 2015. 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}.)

**2400 c. Japan's Pacific Wars.** Spring 2015. Tristan Grunow.

Seminar. Examines the history, presentation, and memory of Japan's twentieth-century wars in the Pacific in order to contemplate how Japan's past and present has been shaped by war. Discussions focus on themes of state-formation and empire-building, tensions between tradition and modernity, cosmopolitanism and militarism, expansion and the quest for economic independence, battlefield conduct, race and propaganda, life on the home front, defeat and occupation, postwar economic revival, and contemporary diplomatic issues and accusations of resurgent militarism. Students produce a term paper on a topic of their choosing. (Same as History 2744.)

**2401 c. Power and the Built Environment in Japanese History.** Spring 2015. Tristan Grunow.

Examines how the built environment was deployed as an instrument of power throughout Japanese history. Focuses on four important historical urban settlements—Makimuku, Nara, Osaka, and Tokyo—to chart how cities and architecture were used to project power. Major emphasis on how Japanese urbanism and architecture was shaped by interactions with outside influences. Assigned literary readings and films draw on the urban experience, considering the various facets of city life in Japan. (Same as History 2291.)

**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 2015. 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 Vyūha* ("Discourse on the 'Pure Land'"), the *Vajracchedika Sutra* (the "Diamond-Cutter"), the *Prajnaparamitra-hṛdaya 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.** (Same as Religion 2220 {220}.)]

**2553 {241} c - IP. Hindu Cultures.** Fall 2016. 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 2014. 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.]**



**2561 {247} b - ESD, IP. Bollywood and Beyond: Indian Cinemas and Society.** Fall 2014.

Sara Dickey.

Explores Indian films, film consumption, and film industries since 1947. Focuses on mainstream cinema in different regions of India, with some attention to the impact of popular film conventions on art cinema and documentary. Topics include the narrative and aesthetic conventions of Indian films, film magazines, fan clubs, cinema and electoral politics, stigmas on acting, filmmakers and filmmaking, rituals of film watching, and audience interpretations of movies. The production, consumption, and content of Indian cinema are examined in social, cultural, and political contexts, particularly with an eye to their relationships to class, gender, and nationalism. Attendance at weekly evening screenings is required. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Anthropology 2601 {232} and Film Studies 2232 {232}.)

Prerequisite: One of the following: Anthropology 1101 {101}, Sociology 1101 {101}, Cinema Studies 1101 {101} or 2202 {202}, one course in Asian studies; or permission of the instructor.

**[2562 {248} b. Activist Voices in India.** (Same as Anthropology 2647 {248}, Cinema Studies 2248 {248}, and Gender and Women's Studies 2250 {246}.)]

**2582 {258} c - ESD, IP. Politics and Popular Culture in Modern India.** Spring 2015. Rachel Sturman.

Examines the new forms of politics and of popular culture that have shaped modernity in India. Topics include the emergence of mass politics, urbanization, modern visual culture, new media technologies, and contemporary media and democracy. (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 social and political movements that have sought to redefine the relationship between religion and the state. Focusing on India and Pakistan, questions considered include: What is secularism? How have modern states sought to define their relationship with "religion?" Why and how have various political movements rejected the idea of secularism? What historical effects have these diverse movements had? Students write a research paper utilizing primary and secondary sources.

**2650 Nation, Religion, and Gender in Indian Epics.** Fall 2014. Sree Padma Holt.

Studies the Indian state-sponsored televised serials of two great Indian epics, the *Ramayana* and the *Mahabharata*, and examines their overwhelming popularity among the general public. Explores issues surrounding the concept of Indian nationhood and its interrelation with the Hindu religion and the position of women in Indian society. Readings include scholarly translations and retellings of the *Ramayana* and the *Mahabharata*; viewings of selected episodes of the televised epics are followed by engagement with the public debate through published online media and other sources. One-half credit. (Same as Gender and Women's Studies 2203 and Religion 2285.)

**2700 c - ESD, IP. Women in South Asia: Images and Experiences.** Spring 2015. Carmen Wickramagamage.

South Asia undoubtedly presents a paradox with regard to women's status with its veneration of Devi [Goddess] and 'Mother' and endorsement of strong political women, on the one



hand, and spectacular, headline-grabbing violence against women on the other. What are the factors that give rise to this seeming paradox? Drawing on a variety of sources, literary and non-literary (from literary and analytical pieces to field reports, documentaries, interviews, personal narratives and oral testimonies), the course introduces students to the forces—cultural and material—that shape women's life-experiences in South Asia. (Same as Gender and Women's Studies 2198 and Religion 2277.)

**2821 {234} b - IP. Politics in East Asia.** Spring 2016. Henry C. W. Laurence.

A broad survey of political systems across East Asia, including China, Japan, and North and South Korea. Central topics include twentieth-century political development, democratization, human rights, and the political roles of women. Also examines current international relations in the region. (Same as Government 2545 {234}.)

**2830 {231} b - IP. Topics on Asian Economies.** 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.** Spring 2016. Christopher Heurlin.

Examines 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}.)

**2870 b. Asian Cities and Globalization.** Spring 2015. Sarah Y. T. Mak.

Introduces the concept and phenomenon of globalization and its relationship to the global city. Examines how historical, social, cultural, and political change takes shape in Asian cities, along with their importance as spaces of global information and capital and technological linkages. Studies how cities are created and imagined in public and official discourse. Readings draw from political science, but also cover urban studies, global studies, anthropology, sociology, geography, and cultural studies. Topics include migration and immigration, development, gentrification, the environment, civil society and popular protests, and labor. (Same as Government 2441.)

**2970–2973 {291–294} c. Intermediate Independent Study in Asian Studies.** The Program.

**2999 {299} c. Intermediate Collaborative Study in Asian Studies.** The Program.

**3100 c. Revolutionary China.** Spring 2015. Leah Zuo.

China's twentieth-century destiny boils down to one word: revolution. Through analysis of historical and literary sources, provides insight into the turbulent course China has followed: from imperial monarchy to republic, from bureaucratic capitalism to command economy,

from Communism to Socialism with “Chinese characteristics.” Focal topics vary from year to year and each time include one or two of the following revolutions: the Revolution of 1911 (the overthrow of the last imperial dynasty), the intellectual awakening of May Fourth, the Communist Revolution in 1949, the Cultural Revolution under Mao, and the most recent capitalist reforms. Each student writes an original research paper. (Same as History 3320.)

**3300 {332} b. Advanced Seminar in Japanese Politics.** Spring 2016. 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}).

**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 2014. 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 2015. 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, or permission of the instructor.

**1103 {103} c. Advanced Elementary Chinese I.** Fall 2014. 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 2015. 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

## COURSES OF INSTRUCTION

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 2014. 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} or 1104 {104}, placement in Chinese 2203, or permission of the instructor.

**2204 {204} c. Intermediate Chinese II.** Spring 2015. 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 2014. 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' ability of 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, or permission of the instructor.

**2206 {206} c. Advanced-Intermediate Chinese II.** Spring 2015. 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 expository 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 2014 and Fall 2015. Shu-chin Tsui.

An advanced course in modern Chinese. Three hours of class per week. 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. Repeatable when content is different.

Prerequisite: Chinese 2206 {206}, placement in Chinese 3307, or permission of the instructor.

**3308 {308} c. Advanced Chinese II.** Spring 2015. Xiaoke Jia.

An advanced course in modern Chinese. Three hours of class per week. Study authentic materials, which may vary from semester to semester, depending on the instructor and students' interest and need. Prepare students to make a successful transition linguistically and culturally from "textbook Chinese" to the "real world," through independent reading, formal critique, and group discussion. Further enhances the accuracy, complexity, and fluency of students' expressions. Repeatable when content is different.

Prerequisite: Chinese 2206 {206} 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 2014. 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, as well as reading and listening comprehension. Context-oriented conversation drills are complemented by audio materials. Basic cultural information also presented. The two kana syllabaries and sixty commonly used kanji are introduced. No prerequisite. Followed by Japanese 1102 {102}.

**1102 {102} c. Elementary Japanese II.** Spring 2015. 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 ninety kanji.

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

**2203 {203} c. Intermediate Japanese I.** Fall 2014. 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, or permission of the instructor.

**2204 {204} c. Intermediate Japanese II.** Spring 2015. 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 2014. Hiroo Aridome.

Building on the fundamentals of Elementary and Intermediate Japanese, students increase proficiency in both the spoken and written language. A variety of written and audiovisual Japanese language materials (essays, movies, manga, etc.) are used to consolidate and expand mastery of more advanced grammatical structures and vocabulary. Students read or watch relevant materials, discuss in class, and then write and/or present on selected Japan-related topics.

Prerequisite: Japanese 2204 {204}, placement in Japanese 2205, or permission of the instructor.

**2206 {206} c. Advanced-Intermediate Japanese II.** Spring 2015. 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 2014. Hiroo Aridome.

An advanced course in modern Japanese designed to develop mastery of the spoken and written language. A variety of written and audiovisual Japanese language materials (essays, movies, manga, etc.) are used. This is a project-oriented class and students learn to express complex thoughts and feelings as well as how to properly conduct themselves in a formal Japanese job interview situation.

Prerequisite: Japanese 2206 {206}, placement in Japanese 3307, 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.

# BIOCHEMISTRY

Bruce D. Kohorn, *Program Director*

Penny Westfall, *Program Coordinator*

*Professor:* Bruce D. Kohorn (Biology)

*Associate Professor:* Danielle H. Dube (Chemistry), Anne E. McBride (Biology)

*Assistant Professor:* Benjamin C. Gorske (Chemistry)

*Laboratory Instructor:* Kate R. Farnham

*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}, 2135 {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

Nathaniel T. Wheelwright, *Department Chair*

Julie J. Santorella, *Department Coordinator*

*Professors:* Patsy S. Dickinson (Neuroscience), Amy S. Johnson, Bruce D. Kohorn (Biochemistry), John Lichter (Environmental Studies), Barry A. Logan, Nathaniel T. Wheelwright

*Associate Professors:* David Carlon, Hadley Wilson Horch (Neuroscience), Anne E. McBride (Biochemistry), Michael F. Palopoli\*

*Assistant Professors:* Jack R. Bateman, Vladimir Douhovnikoff\*\*, William R. Jackman

*Director of Bowdoin Scientific Station on Kent Island:* Damon P. Gannon

*Visiting Faculty:* Samuel H. Taylor

*Fellow:* Sarah Kingston

*Laboratory Instructors:* Pamela J. Bryer, Shana Stewart Deeds, Aimee M. Eldridge, 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 twelve 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; Marine Molecular Ecology and Evolution

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 73, 143, and 254.

## Requirements for the Minor in Biology

The minor consists of five courses within the department, exclusive of independent study and courses below the 1100 {100} level. Minors are required to complete Biology 1102 {102} or Biology 1109 {109} and 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 159–172.

**1023 {23} a. Personal Genomes.** Fall 2014. Jack Bateman.

**1026 {26} a. Adventures in Neuroscience: Aphasias, Auras, and Axons.** Fall 2015. Hadley Horch.

**Biology 1027 {27} a. Evolutionary Links.** Spring 2016. William Jackman.

## Introductory, Intermediate, and Advanced Courses

**1056 {56} a - INS. Ecology and Society.** Spring 2016. 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 2015. 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, as well as 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.

**[1090 {90} a - INS. Understanding Climate Change.** (Same as Environmental Studies 1090 {90}.)]

**1101 {101} a - MCSR, INS. Biological Principles I.** Fall 2014. 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



## COURSES OF INSTRUCTION

1101. Students continuing in biology will take Biology 1102 {102}, not Biology 1109 {109}, as their next biology course.

Prerequisite: Placement in Biology 1101.

**1102 {102} a - MCSR, INS. Biological Principles II.** Spring 2015. 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 2014.

Patsy Dickinson and Vladimir Douhovnikoff. Spring 2015. Bruce Kohorn 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 sciences 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.

Prerequisite: Placement in Biology 1109.

**1158 {158} a - MCSR, INS. Perspectives in Environmental Science.** Every spring. Phil Camill and Dharni Vasudevan.

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 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 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 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. 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 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 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 placement in biology at the 2000 level.

**2210 {210} a - MCSR, INS. Plant Physiology.** Fall 2014. 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 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 placement in biology at the 2000 level.

**2315 {215} a - MCSR, INS. Behavioral Ecology and Population Biology.** Every fall.

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 weekend field trip to Monhegan Island or the Bowdoin Scientific Station on Kent Island. (Same as Environmental Studies 2224 {215}.)

Prerequisite: Biology 1102 {102}, 1109 {109}, or placement in biology at the 2000 level.

**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 placement in biology at the 2000 level.

**2319 {219} a - MCSR, INS. Biology of Marine Organisms.** Every fall. 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 placement in biology at the 2000 level.

**2325 {225} a - MCSR, INS. Biodiversity and Conservation Science.** Fall 2015. 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: One of the following: Biology 1102 {102}, 1109 {109}, or Environmental Studies 2201 {201} (same as Biology 1158 {158} and Chemistry 1105 {105}).

**2330 a – MCSR. Marine Molecular Ecology and Evolution.** Fall 2014. Sarah Kingston.

Features the application of molecular data to ecological and evolutionary problems in the sea. Hands-on laboratory work introduces students to sampling, generation, and analysis of molecular data sets with Sanger-based technology and Next Generation Sequencing. Lectures, discussions, and computer-based simulations demonstrate the relevant theoretical principles of population genetics and phylogenetics. A class project begins a long-term sampling program using DNA barcoding to understand temporal and spatial change in the ocean. Taught at the Bowdoin Marine Laboratory. (Same as Environmental Studies 2233.)

Prerequisite: Biology 1102 {102} or 1109 {109}, and a course in mathematics; or permission of the instructor.

**2423 {223} a. Biochemistry of Cellular Processes.** Spring 2016. Bruce Kohorn.

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}. 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.

Prerequisite: Biology 1102 {102}, 1109 {109}, or 2210 {210} or higher; and Chemistry 1102 {102} or 1109 {109}.

**2551 a - MCSR, INS. Molecular Ecology.** Spring 2015. David Carlon.

Develops the theory and practical skills to apply genetic data to ecological questions. Topics include population connectivity and dispersal, mating systems, detecting natural selection in the wild, and the origin and maintenance of biodiversity. Lectures and discussions develop theoretical understanding through worked examples. The laboratory provides hands-on experience in generating genetic data from marine populations, including modules on sampling design, DNA/RNA extraction, Sanger and Next Generation Sequencing technology, and data analysis through modeling. (Same as Environmental Studies 2268.)

Prerequisite: Biology 1102 {102}, 1109 {109}, or placement in biology at the 2000 level.

**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 mechanisms 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} and Biology 2135 {213} or 2214 {214}, or Psychology 2050 {218}.

**2554 {254} a - MCSR, INS. Biomechanics.** Every spring. 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, problem sets, and individual research projects emphasize (1) the analysis of morphology, including analyses of the shape of individual organisms, different modes of locomotion and 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 2210 {210} or higher; or one course numbered 1100–3999 {100–399} 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, and discussion of the primary literature, students learn identification of birds, functional morphology, and research techniques such as experimental design, behavioral observation, and field methods. Optional weekend field trip to Monhegan Island or 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} or 1109 {109} 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 2015. 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.**3301 a. Dimensions of Marine Biodiversity.** Fall 2014. David Carlon.

Focused laboratory and fieldwork that integrates across the genetic, systematic, and functional aspects of marine biodiversity to understand the ecological and evolutionary significance of biodiversity. Illustrates this approach by featuring three to four different evolutionary clades that are the foundations of different marine communities (e.g. coastal zooplankton, rocky intertidal, soft-bottom benthos, tropical coral reefs, and marine mammals). Taught at the Bowdoin Marine Laboratory. (Same as Environmental Studies 2234.)

Prerequisite: Biology 1102 {102} or 1109 {109}, and a course in mathematics; or permission of the instructor.

**3304 {304} a. The RNA World.** Fall 2014. 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.

**3307 {307} a. Evolutionary Developmental Biology.** Every spring. 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.

**3314 {314} a. Advanced Genetics and Epigenetics.** Every fall. 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}.

**3317 {317} a. Molecular Evolution.** Fall 2015. 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 2015. 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.** Every spring. 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.** Spring 2017. 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}.

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}).

**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

Dharni Vasudevan, *Department Chair*

Penny Westfall, *Department Coordinator*

*Professors:* Richard D. Broene, Jeffrey K. Nagle, Elizabeth A. Stemmler, Dharni Vasudevan (Environmental Studies)

*Associate Professor:* Danielle H. Dube (Biochemistry)

*Assistant Professors:* Soren N. Eustis, Benjamin C. Gorske (Biochemistry)

*Lecturer:* Michael P. Danahy

*Visiting Faculty:* Simbarashe Nkomo

*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 {401–405} 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 (same as Environmental Studies 3903), 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 2970–2979 {291–299}, 4000–4051 {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 research-based 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 (2970–2979 {291–299}) or advanced (4000–4051 {401–405}) level.

## Interdisciplinary Majors

The department participates in interdisciplinary programs in biochemistry, chemical physics, and environmental studies. See pages 73, 220, and 143.

## 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 159–172.

**Introductory, Intermediate, and Advanced Courses**

**1058 {58} a - INS. Drug Discovery.** Fall 2014. 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.]**

**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. 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. Phil Camill and Dharni Vasudevan.

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 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 2014. Soren N. Eustis and Simbarashe Nkomo. Spring 2015. 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.

**2050 {205} a - INS. Environmental Chemistry.** Spring 2015. Dharni Vasudevan.

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 1102 {102} or 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 Benjamin C. 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. 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 are also 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}, placement in chemistry at the 2000 level, or any course numbered 2000–2969 {200–289} in chemistry.

**2510 {251} a - MCSR, INS. Chemical Thermodynamics and Kinetics.** Every fall.

Simbarashe Nkomo.

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, or placement in Mathematics 1800 or 2000 level; 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, or placement in Mathematics 1800 or 2000 level; and Physics 1140 {104}; or permission of the instructor.

**2970–2979 {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 {200–289} required for the chemistry major.

**2999 {299} a. Intermediate Collaborative Study in Chemistry.** The Department.

**3060 {306} a. Transformation of Organic Chemicals in the Environment.** Fall 2014.

Dharni Vasudevan.

Human activities result in the intentional or inadvertent release of organic chemicals into the natural environment. Interconnected physical, chemical, and biological processes influence the environmental fate of chemicals and the extent of human and ecosystem exposure. Focuses on the thermodynamics and kinetics of chemical transformations in the natural environment via nucleophilic, redox, photolytic, and biological (microbial) reactions. (Same as Environmental Studies 3906 {306}.)

Prerequisite: Chemistry 2250 {225}.

**[3100 {310} a. Instrumental Analysis.]**

**[3200 {320} a. Advanced Organic Chemistry: Organometallic Chemistry]**

**3250 {325} a. Structure Determination in Organic Chemistry.** Spring 2015. Richard D. Broene.

The theory and application of spectroscopic techniques useful for the determination of the molecular structures of organic molecules are discussed. Mass spectrometry and infrared, ultraviolet-visible, and nuclear magnetic resonance (NMR) spectroscopies are applied to structure elucidation. Heavy emphasis is placed on applications of multiple-pulse, Fourier transform NMR spectroscopic techniques. Lectures and at least two hours of laboratory work per week.

Prerequisite: Chemistry 2260 {226}.

**[3270 {327} a. Biomimetic and Supramolecular Chemistry.]**

**[3310 {331} a. Chemical Biology.]**

**3400 {340} a. Advanced Inorganic Chemistry.** Spring 2015. Jeffrey K. Nagle.

Inorganic chemistry is incredibly diverse and wide-ranging in scope. Symmetry, spectroscopy, and quantum-based theories and computational methods are employed to gain insight into the molecular and electronic structures and reaction mechanisms of inorganic compounds. Examples from the current literature emphasized, including topics in inorganic photochemistry and biochemistry. Chemistry 2520 {252} is recommended.

Prerequisite: Chemistry 2400 {240} or permission of the instructor.

**3520 a. Methods in Computational Chemistry.** Fall 2014. Soren N. Eustis.

Modern computational tools have deepened our understanding of nearly all aspects of chemistry. Introduces a wide array of computational methods to solve problems ranging from atomic and molecular structure to experimental data analysis. Students work with commercial and open-source tools such as Matlab, R, GAMESS, Gaussian, and LabView.

Prerequisite: Chemistry 1102 {102} or 1109 {109} and Computer Science 1101 {101}.

**4000–4003 {401–404} a. Advanced Independent Study in Chemistry.** The Department.

Advanced version of Chemistry 2970–2979 {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.

## CINEMA STUDIES (FORMERLY: FILM STUDIES\*)

Aviva Briefel, *Program Director*

Laurie Holland, *Program Coordinator*

*Professors:* Aviva Briefel (English), Shu-chin Tsui (Asian Studies), Tricia Welsch

*Visiting Faculty:* Sarah Childress, David Conover

Film has emerged as one of the most important art forms of the modern era. Cinema 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 cinema studies.

*\*Note: the Program's name change, from Film Studies to Cinema Studies, becomes official Spring 2015. Because of that, fall courses remain designated "Film Studies."*

### Requirements for the Minor in Cinema Studies

Students minoring in cinema studies are required to complete a total of five courses. These must include Cinema Studies 1101, Cinema Studies 2201 or 2202 (History of Film I or II), a 3000-level seminar that must be taken at Bowdoin, a cinema studies course that incorporates theory, and a course in non-US cinema. Students can count one class for more than one requirement (i.e., a 3000-level course with a theory component). First-year seminars in cinema studies may count toward the minor, but no more than two courses below the 2000 level will count toward the minor.

### Required Courses:

Cinema Studies 1101 {101}

Cinema Studies 2201 {201} or Cinema Studies 2202 {202}. (Both 2201 and 2202 {201 and 202} may be counted toward the minor.)

Beginning with the Spring 2015 semester: all courses formerly listed as *Film Studies* will be labeled as *Cinema Studies*.

### First-Year Seminars

For a full description of first-year seminars, see pages 159–172.

**1004 c. Film Noir.** Fall 2014. Ann Kibbie. (Same as English 1004 {11}.)

**1043 {23} c. East Asian Genre Cinema: Action, Anime, and Martial Arts.** Fall 2014. Shu-chin Tsui. (Same as Asian Studies 1043 {23}.)

## Introductory Courses

**1101 {101} c - VPA. Film Narrative.** Fall 2014. Allison Cooper.

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 cinema studies is required. Attendance at weekly evening screenings is required.

**1104 {104} c. From Page to Screen: Film Adaptation and Narrative.** Spring 2015. Aviva Briefel.

Explores the topic of “adaptation,” specifically, the ways in which cinematic texts transform literary narratives into visual forms. Begins with the premise that every adaptation is an interpretation, a rewriting/rethinking of an original text that offers an analysis of that text. Central to class discussions is close attention to the differences and similarities in the ways in which written and visual texts approach narratives, the means through which each medium constructs and positions its audience, and the types of critical discourses that emerge around literature and film. May include works by Philip K. Dick, Charles Dickens, Howard Hawks, Alfred Hitchcock, Stanley Kubrick, David Lean, Anita Loos, Vladimir Nabokov, and Ridley Scott. (Same as English 1104 {104})

**[1151 {151} c – ESD. The Literary Imagination and the Holocaust.** (Same as German 1151 {151}.)

**[1152 {152} c - IP, VPA. Berlin: Sin City, Divided City, City of the Future.** (Same as German 1152 {152}.)]

**2075 c - IP, VPA. Ecocinema: China’s Ecological and Environmental Crisis.** Spring 2015 and Spring 2017. Shu-chin Tsui.

Examines how China’s economic development has caused massive destruction to the natural world and how environmental degradation affects the lives of ordinary people. An ecological and environmental catastrophe unfolds through the camera lens in feature films and documentaries. Central topics include the interactions between urbanization and migration, humans and animals, eco-aesthetics and manufactured landscapes, local communities and globalization. Considers how cinema, as mass media and visual medium, provides ecocritical perspectives that influence ways of seeing the built environment. The connections between cinema and environmental studies will enable students to explore across disciplinary as well as national boundaries. *Note:* Fulfills the film theory and the non-US cinema requirements for cinema studies minors. (Same as Asian Studies 2075 and Environmental Studies 2475.)

**2110 c - VPA. Seashore Digital Diaries.** Fall 2014. David Conover.

Exploration of techniques and principles of digital multimedia as tools of inquiry at the seashore. Through assigned and self-designed independent and group projects, studies the seashore as a zone of extremity and movement, in light of its historical and contemporary contexts within the visual arts and film. Techniques introduced include time-lapse sequences of seascape and aquaria, portraits of characters on the working waterfront, and motion graphic visualizations. Seminar discussions, biweekly field trips to the seashore, and class critiques. (Same as Environmental Studies 2461 and Visual Arts 2110.)

Prerequisite: one course in cinema studies, environmental studies, or visual arts.



**2114 c. Fighting Fascism: The Spanish Civil War and Film.** Spring 2015. Elena Cueto Asin.

Takes the Spanish Civil War as a case to study the way in which war in its many facets has been represented in cinema from the 1930s to present. Examines how the subject of war is taken up by different genres: newsreel, documentary, adventure, drama, horror, fantasy, and romantic comedy. Analyzes films from Spain alongside examples from the US, Britain, France, and Mexico paying special attention to how the political dimensions of the Spanish war, in the international context of the fight against Fascism, are subject to different interpretations of the conflict's significance for history. Taught in English. *Note:* Fulfills the non-US cinema requirement for cinema studies minors.

Prerequisite: Cinema Studies 1101.

**2120 c - VPA. Science to Story, Digital, and Beyond.** Spring 2015. David Conover.

Examines the translation of science into stories and digital media that successfully engage public attention. What enables ordinary citizens to form an understanding consistent with the best available scientific evidence? What gets in the way of forming such an understanding? What communication strategies and formats successfully move science to civic society? Case studies include translation of the following areas of climate change science: synthetic biology and algae as biofuel, ocean acidification, rising sea levels, and super storms. Class reading and writing assignments and seminar discussions lead to development of group presentations and production of digital media. (Same as Environmental Studies 2463 and Visual Arts 2120.)

Prerequisite: one course in cinema studies, environmental studies or visual arts.

**2201 {201} c - VPA. History of Film I, 1895 to 1935.** Spring 2015. 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.

**2218 {218} c - VPA. Film as a Subversive Art: Avant-Garde Cinema.** Spring 2015.

Sarah Childress.

In the arts, scholars use the term “avant-garde” to describe works that break new ground or express a different way of seeing the world and living in it. Avant-garde cinema provokes us to examine how films make meaning and challenges us to examine our understanding of the world. Explores avant-garde cinema from the 1920s through the 1970s, with an emphasis on the work of US filmmakers. Examines the aesthetic, social, and cultural challenges presented by avant-garde filmmakers and how they use formal techniques to comment upon significant social and aesthetic experiences. Attendance at weekly evening screenings is required. *Note:* Fulfills the film theory requirement for cinema studies minors.

**2221 {220} c - IP, VPA. Soviet Worker Bees, Revolution, and Red Love in Russian Film.**

Fall 2014. Kristina Toland.

An interdisciplinary examination of Russian culture surveying the development of literary and visual arts from the 1900s through 2010s. Focuses on the themes of the individual vis-à-vis society and on gender politics, using literary and cinematic texts. Topics include “the woman question” in Russia, scientific utopias, eternal revolution, individual freedom versus collectivism, conflict between the intelligentsia and the common man, the “new Soviet woman,” nationalism, the thaw, stagnation of the 1970s, sexual liberation, and the search

for post-Soviet identity. Explores the evolution of literary genres (short story and novella) and film techniques in relation to socio-political and cultural developments, paying particular attention to questions of the interrelationship between arts, audience and critic, and the politics of form. Weekly film viewings. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Gender and Women's Studies 2510 {220} and Russian 2221 {221}.)

**2232 {232} b - ESD, IP. Bollywood and Beyond: Indian Cinemas and Society.** Fall 2014. Sara Dickey.

Explores Indian films, film consumption, and film industries since 1947. Focuses on mainstream cinema in different regions of India, with some attention to the impact of popular film conventions on art cinema and documentary. Topics include the narrative and aesthetic conventions of Indian films, film magazines, fan clubs, cinema and electoral politics, stigmas on acting, filmmakers and filmmaking, rituals of film watching, and audience interpretations of movies. The production, consumption, and content of Indian cinema are examined in social, cultural, and political contexts, particularly with an eye to their relationships to class, gender, and nationalism. Attendance at weekly evening screenings is required. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Anthropology 2601 {232} and Asian Studies 2561 {247}.)

Prerequisite: One of the following: Anthropology 1101 {101}, Sociology 1101 {101}, Cinema Studies 1101 {101} or 2202 {202}, one course in Asian studies; or permission of the instructor.

**[2248 {248} b. Activist Voices in India.** (Same as Anthropology 2647 {248}, Asian Studies 2562 {248}, and Gender and Women's Studies 2250 {246}.)]

**2252 {252} c - VPA. British Film.** Fall 2014. Tricia Welsch.

Surveys the first hundred years of British cinema from the silent period to contemporary films. Topics covered: invention of cinema and patterns of movie-going in the United Kingdom; work of important directors and producers (Alfred Hitchcock, Carol Reed, Alexander Korda); changes brought by World War II; the Angry Young Men of the '50s and '60s; and recent developments ("heritage" films, postcolonial perspectives, Scottish film). Attendance at weekly evening screenings is required. *Note:* Fulfills the non-US cinema requirement for cinema studies minors

**2254 {254} c - IP, VPA. Topics in Chinese Cinema.** Fall 2015 and Spring 2017. 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 benefit most by bringing both an open mind toward non-Western cultural texts and a critical eye for visual art. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Asian Studies 2072 {254}.)

**2262 c - VPA. Reel Places: Framing Interactions between Humans and their Environments.** Fall 2014. Sarah Childress.

Considers place as a way to examine how humans experience and engage the world. Of particular interest are how filmmakers create plausible worlds, how place transcends setting to become a character or collaborator in film narratives from around the world, how film texts are tied to the contexts of their making, and how the social spaces of film viewing

## COURSES OF INSTRUCTION

shape reception. Attendance at weekly evening screenings is required, as is a willingness to participate in off-campus commercial theater and film festival screenings. (Same as Environmental Studies 2462.)

**2266 {266} c - IP. Chinese Women in Fiction and Film.** Spring 2015 and Fall 2017. 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 social-political 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. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (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}.)]

**2428 c - VPA. Introduction to Film Theory.** Spring 2015. Ann Kibbie.

A survey of some of the major currents in film theory from the early days of motion pictures to the present, including formalism, genre theory, auteur theory, psychoanalytic theory, feminist theory, and queer theory. Includes mandatory evening film screenings; a choice of two screening times will be available for each film. *Note:* Fulfills the film theory requirement for cinema studies minors. (Same as English 2428.)

**[2553 c. Italy's Cinema of Social Engagement.** (Same as Italian 2553.)]

**2970–2973 {291–294} c. Intermediate Independent Study in Cinema Studies.** The Program.

**2999 {299} c. Intermediate Collaborative Study in Cinema Studies.** The Program.

**3200 c. The Ethics of Image.** Spring 2015. Birgit Tautz.

Explores the representation of a range of ethical questions in film as well as the ethics of film, including the formal and stylistic, historical, and political decisions made in constructing cinematic images. Arranged in the form of case studies, compares and contrasts examples of international film with a focus on theoretical questions and approaches. May consider the ways in which films represent traumatic events in history (e.g., the Holocaust), environmental disasters, sexual and gender identity, to name a few. Addresses questions of cinematic genre as well as spectatorship (e.g., identification and repulsion, taste, appropriateness, humor, shock, activism as response). *Note:* Fulfills the film theory and the non-US cinema requirements for cinema studies minors.

Prerequisite: One course in cinema studies or permission of the instructor.

**3322 {322}. Film and Biography.** Spring 2015. Tricia Welsch.

Explores how filmmakers have constructed public history through films professing to tell the life stories of important individuals. Examines the biopic as a significant and long-lived genre, looks at issues of generic change and stability, and considers the narrative process in relation to historic events and individuals. Attendance at weekly evening screenings is required.

**3333 {333} c. The Films of John Ford.** Fall 2014. Tricia Welsch.

Examines the films of John Ford, from the silent period to the 1960s. Considers his

working methods and visual composition, as well as consistent themes and characterizations. Investigates Ford's reputation in light of shifting American cultural values. Attendance at weekly evening screenings is required.

Prerequisite: One of the following: Cinema Studies 1101 {101}, 2201 {201}, or 2202 {202}  
**3395 {395} c - IP. Myths, Modernity, Media.** Fall 2014. Birgit Tautz.

Explores the important role that myths have played in German cultural history. While founding myths of Germanic culture (e.g., Nibelungen) are considered, focuses especially on myth in relation to fairy tales, legends (including urban legends of the twentieth century), and borderline genres and motifs (e.g., vampires, witches, automatons), as well as on questions of mythmaking. Examines why modern culture of the twentieth and twenty-first centuries, which seemingly neglects or overcomes myths, heavily engages in mythicization of ideas (e.g., gender roles, the unnatural) and popularizes myths through modern media (film, television, the Internet), locations (e.g., cities) and transnational exchange (Disney; the myth of "the Orient"). Aside from short analytical or interpretive papers aimed at developing critical language skills, students may pursue a creative project (performance of a mythical character, design of a scholarly web page, writing of a modern fairy tale). All materials and coursework in German. *Note:* Fulfills the film theory and non-US cinema requirements for cinema studies minors. (Same as German 3395 {395}.)

Prerequisite: German 2204 {204} or placement.

**4000–4003 {401–404} c. Advanced Independent Study in Cinema Studies.** The Program.

**4029 {405} c. Advanced Collaborative Study in Cinema Studies.** The Program.

## CLASSICS

Jennifer Clarke Kosak, *Department Chair*

Tammis L. Donovan, *Department Coordinator*

*Professor:* Barbara Weiden Boyd†

*Associate Professors:* James A. Higginbotham, Jennifer Clarke Kosak, Robert B. Sobak

*Lecturer:* Michael Nerdahl

*Visiting Faculty:* Ryan McConnell, Cynthia Shelmerdine

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

## COURSES OF INSTRUCTION

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 {102} (same as Art History 2100 {210});
- either Classics 1101 {101} or 1102 {102};
- either Classics 1111 (same as History 1111) or 1112 (same as History 1112);
- 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 multi-disciplinary 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 one of Classics 1111 (same as History 1111) or 1112 (same as History 1112);
- at least one of Classics 1101 {101}, 1102 {102}, Archaeology 1101 {101}, or Archaeology 1102 {102};
- at least three courses selected from 2200 level offerings in Classics or 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 220.

### 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 1101 {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 1111 (same as History 1111); 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.

## COURSES OF INSTRUCTION

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 1112 (same as History 1112); 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. Greek Archaeology.** Fall 2015. 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. 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 A.D. 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.**]

[2207 {207} c - IP. **Who Owns the Past? The Roles of Museums in Preserving and Presenting Culture.** (Same as Anthropology 2105 {205}.)]

**2211 c - ESD, IP. Minoans and Mycenaeans.** Spring 2015. Cynthia Shelmerdine.

Explores the two important cultures of the Bronze Age Aegean: the Minoans of Crete, and more extensively, the Mycenaeans of the Greek mainland. Both societies left a rich material record of towns and palaces, burials, frescoes, and minor arts. They interacted with each other and with the Egyptians and other great powers of the time. For the Mycenaean Greeks, we also have readable documents, which reveal details about their economy, society, and religion. We discuss the archaeological techniques used to unearth and investigate this material and compare the Bronze Age realities with the stories preserved in Greek mythology.

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:

**3302 {302} c. Ancient Numismatics.** Spring 2015. James A. Higginbotham.

Surveys Greek and Roman coinage by examining a series of problems ranging chronologically from the origins of coinage in the seventh century B.C. to the late Roman Empire. How do uses of coinage in Greek and Roman society differ from those of the modern era? How does numismatic evidence inform us about ancient political and social, as well as economic, history? One class each week is held in the Bowdoin College Museum of Art and course assignments are based on coins in the collection.

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

[3311 c. **Portraits from Antiquity.**]

## CLASSICS

### First-Year Seminars

For a full description of first-year seminars, see pages 159–172.

[1011 {11} c. **Shame, Honor, and Responsibility.**]

**1017 {17} c. The Heroic Age: Ancient Supermen and Wonder Women.** Fall 2014. Michael Nerdahl.

### Introductory, Intermediate, and Advanced Courses

Classics 1101 {101} and 1102 {102} are offered in alternate years.

**1101 {101} c - ESD, IP. Classical Mythology.** Spring 2016. The Department.

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. Ryan McConnell.

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.

**1111 c - ESD, IP. History of Ancient Greece: From Homer to Alexander the Great.** Fall 2015. Robert B. Sobak.

Surveys the history of Greek-speaking peoples from the Bronze Age to the death of Alexander the Great. 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. Special attention is given to the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). Note: This course fulfills the pre-modern requirement for history majors. (Same as History 1111.)

**1112 c - ESD, IP. History of Ancient Rome: From Romulus to Justinian.** Fall 2014. Robert B. Sobak.

Surveys the history of Rome from its beginnings to the fourth century A.D. 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 1112.)

**2214 {214} c - IP. The Republic of Rome and the Evolution of Executive Power.** Spring 2015. Michael Nerdahl.

Examines in depth the approaches to leadership within the governmental system that enabled a small, Italian city-state to take eventual control of the Mediterranean world and how this state was affected by its unprecedented military, economic, and territorial growth. Investigates and re-imagines the political maneuverings of the most famous pre-Imperial Romans, such as Scipio Africanus, the Gracchi, and Cicero, and how political institutions such as the Roman Senate and assemblies reacted to and dealt with military, economic, and revolutionary crises. Looks at the relationship of the Roman state to class warfare, the nature of electoral politics, and the power of precedent and tradition. While examining whether the ultimate fall precipitated by Caesar's ambition and vision was inevitable, also reveals what lessons, if any, modern politicians can learn about statesmanship from the transformation of the hyper-competitive atmosphere of the Republic into the monarchical principate of Augustus. All sources, such as Livy's history of Rome, Plutarch's *Lives*, letters and speeches of Cicero, and Caesar's *Civil War*, are in English, and no prior knowledge of Roman antiquity is required.

*Note:* This course fulfills the pre-modern requirement for history majors. (Same as History 2008 {267}.)

**2229 {229} c - ESD. Gender and Sexuality in Classical Antiquity.** Fall 2014. Jennifer Clarke Kosak.

Explores male and female sexuality and gender roles in the ancient Greek and Roman world. What did it mean to be male or female? To what extent were gender roles negotiable? How did gender—and expectations based on gender—shape behavior? How did sexuality influence public life and culture? Using literary, documentary, and artistic evidence, examines the biological, social, religious, legal, and political principles that shaped the construction of male and female identities and considers the extent to which gender served as a fundamental organizational principle of ancient society. Also considers how Greek and Roman concepts of sexuality and gender have influenced our own contemporary views of male and female roles. All readings are done in translation. (Same as Gender and Women's Studies 2220 {229}.)  
*Note:* Offered as part of the curriculum in Gay and Lesbian Studies.

[2232 {232} c - ESD, VPA. **Ancient Greek Theater.**]

[2241 {241} c. **The Transformations of Ovid.**]

**3305 {305} c. Leisure, Class, and Liberal Arts in Ancient Greece.** Fall 2014. Robert B. Sobak.

Just as the English words “school” and “scholar” derive from the Greek word for “leisure,” so too do many of our own ideas about what constitute a “liberal arts” education derive from a particular place and moment in time: ancient Greece. Examines not only a wide variety of idealistic prescriptions for educational practice by writers such as Plato, Xenophon, and Aristotle, but also the historical context within which such ideals were born. Confronts, among other things, questions of time, socio-economic status, political ideology, and intellectualism—issues that have as much importance today as they did 2,500 years ago.

Prerequisite: One course in classics numbered 1100-1999 {100-199} or 2000-2969 {200-289}, or permission of the instructor.

[3310 {310} c - ESD. **Imagining Rome.**]

## GREEK

**1101 {101} c. Elementary Greek I.** Spring 2015. 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.

**1102 {102} c. Elementary Greek II.** Fall 2014. 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 2015. 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.

## COURSES OF INSTRUCTION

### **2204 {204} c - IP. Homer.** Fall 2014. Ryan McConnell.

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.]**

### **[3303 {303} c. The Historians.]**

### **3305 {305} c. Tragedy.** Spring 2015. Jennifer Clarke Kosak.

Introduces the genre of tragedy through the reading of Sophocles' play *Philoctetes*. Considers the nature of tragedy, the particular style and interests of Sophocles, the place of the play within Sophocles' works, his relationship to other tragedians and the role of theater in classical Athens. Several other tragedies will be read in translation. The final portion of the course will be devoted to a production of a section of the play in Greek.

## LATIN

### **1101 {101} c. Elementary Latin I.** Every fall. Fall 2014. 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 2015. 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 2014. Ryan McConnell.

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 2015. Robert B. Sobak.

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:

**[3304 {304} c. Cicero.]**

**[3305 {305} c - IP. Virgil. The *Aeneid*.]**

**3306 {306} c. The Roman Novel.** Spring 2015. Ryan McConnell.

All that remains of the Roman novel comes from two texts. Petronius' fragmentary, funny, and often bizarre *Satyrical* (probably late first century C.E.) follows a same-sex love triangle slumming its way around ancient Italy. Apuleius' *Metamorphoses* or *The Golden Ass* (late second century C.E.) tells the story of a young man who dabbles in magic and accidentally transforms himself into an ass. The ass' quest for salvation is the frame for several sub-narratives illuminating the larger story's themes. In this course we focus on selections from one or both novels in Latin and complement these with the remainder in translation. The focus of the course is on a precise understanding of the Latin text and an appreciation of the author's style, but we will also examine what the novels tell us about the social, historical, economic, religious, linguistic, and literary contexts in which they were produced. Research seminar.

**3308 c. Roman Elegy.** Fall 2014. Michael Nerdahl.

Near the end of the first century B.C., a general-poet named Gallus established the conventions of a new poetic form, Roman elegy, perhaps the most Roman of all poetic genres. It employs Greek meter and draws heavily from Greek models, and yet has no true analogue from the Hellenic world. The elegists—charming, playful, and downright funny—were part of a unique literary circle and offer a rare opportunity to see how poets engaged in literary rivalry and one-upmanship. Readings include works of the Augustan elegists, Tibullus, Propertius, and Ovid. Discusses the origins of elegy as well as its relationship to other genres, especially epic and oratory, conceptions of gender in the Augustan age, and Latin elegy's role in challenging Roman cultural and political expectations, as the dalliances portrayed by the elegists are strikingly at odds with the social agenda of the first Roman emperor, Augustus. Research seminar.

Prerequisite: Latin 2204 {204} or a course in Latin numbered 3000-3999 {300-399}; or placement into advanced Latin.

**[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 SCIENCE

Laura Toma, *Department Chair*

Suzanne M. Theberge, *Senior Department Coordinator*

*Professor:* Eric L. Chown†

*Associate Professors:* Stephen M. Majercik, Laura I. Toma

*Visiting Faculty:* Sean Barker, Mohammad T. Irfan, Richard Wilkins

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 Internet-related 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 at the intermediate or advanced level (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 2101 {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 220.

### 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}.

For courses at the 2000 level or above, a grade of C- or better must be earned in the course for it to serve as a prerequisite for another computer science 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. Sean Barker and Mohammad Irfan.

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 programming. 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. Final examination grade must be C or better to serve as a prerequisite for Computer Science 2101.

**2101 {210} a - MCSR. Data Structures.** Every semester. Stephen Majercik.

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 with a grade of C or better before class starts.

Prerequisite: Computer Science 1101 {101} with a grade of C or better on the final examination; placement above Computer Science 1101 {101}; or permission of the instructor.

**2200 {231} a - MCSR. Algorithms.** Fall 2014 and Spring 2015. 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-and-conquer, dynamic programming, and greedy algorithms.

Prerequisite: Computer Science 2101 {210} or permission of the instructor.

[2210 {289} a - MCSR. Theory of Computation.]

[2300 {220} a. Computer Organization.]

**2310 {240} a - MCSR. Operating Systems.** Fall 2014. Sean Barker.

An introduction to operating systems concepts, design, and implementation. Operating systems (OS) are essential to any computer system and, although we have witnessed rapid changes in applications and in the use of computers, the fundamental concepts that underlie an OS remain the same. Students get hands-on experience experimenting with Linux—a real, widely used, open source OS. Concepts studied are applicable to most operating systems: Windows, OS X, FreeBSD, Solaris. Compares differences in design choices among these other systems. Topics include process management (scheduling, threads, interprocess synchronization, and deadlocks), main memory and virtual memory, file and I/O subsystems, and the basics of OS protection and security.

Prerequisite: Computer Science 2101 {210}, or permission of the instructor.

**2325 {250} a - MCSR. Principles of Programming Languages.** Fall 2014. Mohammad T. Irfan.

Focuses on different paradigms for solving problems and their representation in programming languages. These paradigms correspond to distinct ways of thinking about problems. For example, “functional” languages (such as Haskell) focus attention on the behavioral aspects of the real-world phenomena being modeled; “logic programming” languages (such as Prolog) focus attention on the declarative aspects of problem-solving. Covers principles of language design and implementation including syntax, semantics, type systems, control structures, and compilers.

Prerequisite: Computer Science 2101 {210} or permission of the instructor.

**2400 {270} a - MCSR. Artificial Intelligence.** Fall 2014. 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.]

**2970–2973 {291–294} a. Intermediate Independent Study in Computer Science.** The Department.

**2999 {299} a. Intermediate Collaborative Study in Computer Science.** The Department.

**3225 {350} a. GIS Algorithms and Data Structures.** Fall 2014. 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 deals with large datasets, making it important to process data efficiently, it provides 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.

**3250 a. Computational Geometry.** Spring 2016.

Computational geometry studies algorithms for collections of geometric objects such as points, lines, polygons, and planes. Geometric algorithms arise in areas such as computer graphics, robotics, or image processing. Covers the basic geometric problems and techniques: polygon triangulations, convex hulls, Delaunay triangulations and Voronoi diagrams, visibility, geometric searching, and motion planning.

Prerequisite: Computer Science 2101 {210} and 2200 {231}, or permission of the instructor.

**3350 a. Social and Economic Networks.** Spring 2015. Mohammad Irfan.

Examines the social and economic aspects of today's connected world from a multitude of perspectives: network science, sociology, economics, and computer science. Addresses these fundamental questions: What is a network? What does a real-world network look like? What are its effects on various social and behavioral phenomena, such as smoking, obesity, or even videos going viral? Studies the network structure of the Internet, how companies like Google search it, and how they make money doing so. Also addresses further economic implications of networks, including networked economies and markets.

**[3355 {315} a. Open Source Software Development.]****[3400 {355} a. Cognitive Architecture.]****3425 {375} a. Optimization and Uncertainty.** Spring 2016.

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



## COURSES OF INSTRUCTION

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 OCEANOGRAPHIC SCIENCE

Collin S. Roesler, *Department Chair*

Marjorie L. Parker, *Department Coordinator*

*Professors:* Rachel J. Beaney, Philip Camill (Environmental Studies)

*Associate Professors:* Peter D. Lea, Collin S. Roesler

*Assistant Professors:* Emily M. Peterman, Michèle G. LaVigne

*Visiting Faculty:* Christian Schrader

*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 a laboratory (course numbers ending in 5) from each of the following three areas:

1. *Solid Earth:* EOS 2125 {241}, 2115, 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:* EOS 2525 {252}, 2535, 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}], 3140 {343}, or 3520 {352}). The remaining two 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 2014. 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. Students complete a research project on Maine geology.

**1305 {104} a - MCSR, INS. Environmental Geology and Hydrology.** Every spring. Spring 2015. 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/or landslides. Weekly labs and fieldwork examine local environmental problems affecting Maine's rivers, lakes, and coast. Students complete a community-based research project. (Same as Environmental Studies 1104 {104}.)

**1505 {102} a - INS. Oceanography.** Every spring. Spring 2015. Collin Roesler.

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 field-based research project on coastal oceanography. (Same as Environmental Studies 1102 {102}.)

**2005 {200} a. Biogeochemistry: An Analysis of Global Change.** Every fall. Fall 2014. 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.]**

**[2110 {211} a - INS. Volcanoes.]**

**2115 a - INS. Volcanology.** Fall 2014. Christian Schrader.

Volcanism is responsible for the crusts and atmospheres of all the rocky planets (and some of the icy ones as well), affects human civilization, serves as a probe into planetary interiors, and allows comparison across the solar system. Surveys volcanic rocks and landforms and the impacts of volcanism on human and Earth history and climate. Weekly laboratory sessions

study volcanic rocks in hand-sample and thin-section volcanic deposits in the field and in maps and photos and investigate the links between magma eruptive style and composition. Not open to students who have credit for Earth and Oceanographic Science 2110 {211}.

Prerequisite: One of: Earth and Oceanographic Science 1105 {101}, 1305 {104} (same as Environmental Studies 1104 {104}), 1505 {102} (same as Environmental Studies 1102 {102}), 1515 {105} (same as Environmental Studies 1515 {105}), or 2005 {200} (same as Environmental Studies 2221 {200}).

**2125 {241} a - MCSR, INS. Field Studies in Structural Geology.** Fall 2015. 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.]**

**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 changes in pressure, temperature, and chemistry (e.g., mountain building). Interactions between 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 hand sample 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 2015. Dharni Vasudevan.

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.** Every other fall. Fall 2015. 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.** Every other fall. Fall 2014. 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: Earth and Oceanographic Science 2005 {200} (same as Environmental Studies 2221 {200}).

[2355 {272} a. **Glaciers and Ice Ages.**]

**2525 {252} a. Marine Biogeochemistry.** Spring 2015. 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.**]

**2540 a - INS. Equatorial Oceanography.** Spring 2015. 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 (CO<sub>2</sub>) to the atmosphere. Explores how circulation, upwelling, biological activity, biogeochemistry, and CO<sub>2</sub> 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}).

**2550 a - INS. Remote Sensing of the Ocean: A View from the Top.** Every other fall. Fall 2014. Collin Roesler.

In the 1980s, NASA's satellite program turned some of its space-viewing sensors towards the Earth to better understand Earth's processes. Since that time NASA's Earth Observatory mission has yielded a fleet of satellites bearing an array of sensors that provide a global view of the Earth each day. Examines global ocean processes using lenses that target specific parts of the energy spectrum arising from the oceans, from ultraviolet light through microwaves, revealing such properties as ocean bathymetry, temperature, salinity, waves, currents, primary productivity, sea ice distribution, and sea level, among others. Now that satellite data records are exceeding thirty years in length, they can be used to interpret climate-scale responses of the ocean from space.

Prerequisite: One of: Earth and Oceanographic Science 1105 {101}, 1305 {104} (same as Environmental Studies 1104 {104}), 1505 {102} (same as Environmental Studies 1102 {102}), or 2005 {200} (same as Environmental Studies 2221 {200}); and Mathematics 1600 {161}.

**2585 {282} a - MCSR, INS. Ocean and Climate.** Every other fall. Fall 2014. 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}.

**2610 a. Planetary Geology.** Fall 2014. Christian Schrader.

A survey of planetary bodies with an emphasis on the crusts of the rocky planets and moons. Solar system condensation and early differentiation, planet formation, comparative histories of the rocky planets, meteorites, and surface processes use new data and resources from spacecraft in orbit and on the surface of planetary bodies, augmenting text with historic and recent articles on meteorite studies and planetary modeling.

Prerequisite: One of: Earth and Oceanographic Science 1105 {101}, 1305 {104} (same as Environmental Studies 1104 {104}), 1505 {102} (same as Environmental Studies 1102 {102}), 1515 {105} (same as Environmental Studies 1515 {105}), or 2005 {200} (same as Environmental Studies 2221 {200}).

**2810 {257} a. Atmosphere and Ocean Dynamics.** Every other fall. Fall 2015. 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 2015. 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 CO<sub>2</sub>, and disturbance to examine several issues: long-term carbon cycling and climate, major extinction events, the rise of C<sub>4</sub> 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 2015. Christian Schrader.

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}).



**3140 {343} a. Tectonics and Climate.** Spring 2015. Emily Peterman.

Exploration of the complex interactions between tectonics and climate. Discussion of current research is emphasized by reading primary literature, through class discussions and presentations, and by writing scientific essays. The emphasis on current research means topics may vary, but include: the rise of continents, the evolution of plate tectonics on Earth over the last 4.5 billion years, ancient mountain belts, supercontinents, the record of earth system processes preserved in the geologic record, predictions of how the modern earth system will be recorded in the future rock record, the topographic growth of mountain belts, and Cenozoic climate change. (Same as Environmental Studies 3943 {343}.)

Prerequisite: Earth and Oceanographic Science 2005 {200} (same as Environmental Studies 2221 {200}), or permission of the instructor.

**3515 {351} a. Research in Oceanography: Topics in Paleoceanography.** Fall 2014. 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

Guillermo Herrera, *Department Chair*

Elizabeth Weston, *Department Coordinator*

*Professors:* Rachel Ex Connelly, Deborah S. DeGraff, John M. Fitzgerald, Jonathan P. Goldstein†, B. Zorina Khan†

*Associate Professors:* Gregory P. DeCoster, Guillermo Herrera

*Assistant Professors:* Stephen J. Meardon, Stephen D. Morris, Erik Nelson, Daniel F. Stone, Yao Tang

*Instructors:* Matthew J. Botsch, Gonca Senel

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 3000s {300s}, 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 223.

## 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}, or 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 159–172.

**[1018 {18} b. The Art of the Deal: Commerce and Culture.]**

**1027 b. The Quiet Revolution: Women, Work, and Family in the Twentieth Century.** Fall 2014. Rachel Connelly.

## Introductory, Intermediate, and Advanced Courses

**1050 b - MCSR. Introductory Microeconomics and Quantitative Reasoning.** Fall 2014. Rachel Connelly.

A quantitative-reasoning-supported introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. Covers the same content as Economics 1101 with added instruction in the quantitative skills used in modern microeconomics, providing a firm foundation for further coursework in economics. Students desiring a comprehensive introduction to economic reasoning should take both this course (or Economics 1101) and 1102 (102). To ensure proper placement, students must fill out economics department placement form and must be recommended for placement in Economics 1050. Not open to students who have taken Economics 1101.

**1100 {100} b. Introduction to the Economy.** Spring 2015 or 2016. Gregory DeCoster.

A non-technical introduction to the operation of modern capitalist economies, with a focus on the United States. Emphasizes use of a small number of fundamental concepts

## COURSES OF INSTRUCTION

to clarify how economics function and to provide a foundation for informed evaluation of contemporary economic debates. Topics include incentives, decision-making, markets as a means of allocating resources, characteristics of market allocation, measures and history of US economic performance, structure and function of the financial system, sources of economic growth, and business cycles. Periodic discussions of the role of government in the economy. Seeks to provide a level of economic literacy adequate to understanding debates as conducted in the popular press. Intended for students not planning to major in economics. Not open to students who have credit for Economics 1050, 1101 or 1102. Does not satisfy the prerequisite for any other course in economics.

**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}. For proper placement, students should fill out the economics placement request form and must be recommended for placement in Economics 1101. Not open to students who have taken Economics 1050.

**1102 {102} 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}, 1050, or earned 1101 through placement.

**2210 {210} b. Economics of the Public Sector.** Fall 2014. John M. Fitzgerald.

Theoretical and applied evaluation of government activities and the role of government in the economy. Topics include public goods, public choice, income redistribution, benefit-cost analysis, health care, social security, and incidence and behavioral effects of taxation. Not open to students who have credit for Economics 3510 {310}.

Prerequisite: Economics 1101 {101}, 1050, or earned 1101 through placement.

**2211 {211} b - MCSR. Poverty, Inequality, and Public Policy.** Fall 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}, 1050, or earned 1101 through placement.

**2212 {212} b - MCSR. Labor and Human Resource Economics.** 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}, 1050, or earned 1101 through placement.

**2213 {213} b. History of Economic Thought.** Fall 2015 or Spring 2016. 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}, 1050, or earned 1101 through placement, and Economics 1102 {102} or earned 1102 through placement, or permission of the instructor.

**2221 {221} b - MCSR, ESD. Marxian Political Economy.** Fall 2015. 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: one of the following: Economics 1100 {100} 1101 {101}, 1050, or earned 1101 through placement, or permission of the instructor.

**2226 {226} b - IP. Political Economy of Pan-Americanism.** Fall 2014. 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 Pan-Americanism 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}, 1050, or earned 1101 through placement.

**2227 {227} b - MCSR, IP. Human Resources and Economic Development.** Fall 2014.

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}, 1050, or earned 1101 through placement.

**2228 {228} b - MCSR. Natural Resource Economics and Policy.** Spring 2015. 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}, 1050, or earned 1101 through placement.

**2239 {239} b - IP. Topics on Asian Economies.** 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}, 1050, or earned 1101 through placement, and Economics 1102 {102}, or earned 1102 through placement.

**1050 b - MCSR. Introductory Microeconomics and Quantitative Reasoning.** Fall 2014. Rachel Connelly.

A quantitative-reasoning-supported introduction to economic analysis and institutions, with special emphasis on the allocation of resources through markets. Covers the same content as Economics 1101 with added instruction in the quantitative skills used in modern microeconomics, providing a firm foundation for further coursework in economics. Students desiring a comprehensive introduction to economic reasoning should take both this course (or Economics 1101) and 1102 (102). To ensure proper placement, students must fill out economics department placement form and must be recommended for placement in Economics 1050.

**1100 {100} b. Introduction to the Economy.** Spring 2015 or 2016. Gregory DeCoster.

A non-technical introduction to the operation of modern capitalist economies, with a focus on the United States. Emphasizes use of a small number of fundamental concepts to clarify how economies function and to provide a foundation for informed evaluation of contemporary economic debates. Topics include incentives, decision-making, markets as a means of allocating resources, characteristics of market allocation, measures and history of US economic performance, structure and function of the financial system, sources of economic growth, and business cycles. Periodic discussions of the role of government in the economy. Seeks to provide a level of economic literacy adequate to understanding debates as conducted in the popular press. Intended for students not planning to major in economics. Not open to students who have credit for Economics 1050, 1101 or 1102. Does not satisfy the prerequisite for any other course in economics.

**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}. For proper placement, students should fill out the economics placement request form and must be recommended for placement in Economics 1101. Not open to students who have taken Economics 1050.

**1102 {102} 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}, 1050, or earned 1101 through placement.

**2210 {210} b. Economics of the Public Sector.** Fall 2014. John M. Fitzgerald.

Theoretical and applied evaluation of government activities and the role of government in the economy. Topics include public goods, public choice, income redistribution, benefit-cost analysis, health care, social security, and incidence and behavioral effects of taxation. Not open to students who have credit for Economics 3510 {310}.

Prerequisite: Economics 1101 {101}, 1050, or earned 1101 through placement.

**2211 {211} b - MCSR. Poverty, Inequality, and Public Policy.** Fall 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}, 1050, or earned 1101 through placement.

**2212 {212} b - MCSR. Labor and Human Resource Economics.** 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}, 1050, or earned 1101 through placement.

**2213 {213} b. History of Economic Thought.** Fall 2015 or Spring 2016. 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}, 1050, or earned 1101 through placement, and Economics 1102 {102} or earned 1102 through placement, or permission of the instructor.

**2221 {221} b - MCSR, ESD. Marxian Political Economy.** Fall 2015. 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: one of the following: Economics 1100 {100}, 1101 {101}, 1050, or earned 1101 through placement, or permission of the instructor.

**2226 {226} b - IP. Political Economy of Pan-Americanism.** Fall 2014. 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 Pan-Americanism 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}, 1050, or earned 1101 through placement.

**2227 {227} b - MCSR, IP. Human Resources and Economic Development.** Fall 2014. 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}, 1050, or earned 1101 through placement.

**2228 {228} b - MCSR. Natural Resource Economics and Policy.** Spring 2015. 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}, 1050, or earned 1101 through placement.

**2239 {239} b - IP. Topics on Asian Economies.** 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}, 1050, or earned 1101 through placement, and Economics 1102 {102}, or earned 1102 through placement.

**2301 {260} b - MCSR. Financial Economics.** Fall 2014. Matthew Botsch.

Provides an overview of issues in the economics of finance. Explores how financial markets are used to manage risk and allocate scarce resources over time and space. Topics covered may include: bond pricing, time and risk preferences, the capital asset pricing model, the efficient markets hypothesis, anomalies and proposed explanations in asset pricing, the Modigliani-Miller theorem, and agency issues within firms. Presentation of material is grounded in economic theory. Mathematics 1600 {161} is recommended.

Prerequisite: Economics 1101 {101}, 1050, or earned 1101 through placement, and Economics 1102 {102}, or earned 1102 through placement.

**2303 b. Financial Crises.** Spring 2015. Matthew Botsch.

Presents a historical and theoretical overview of financial crises. Covers models of exchange-rate crises, sovereign debt crises, and banking crises. A particular focus on the financial crisis of 2007-09, with close readings of contemporary accounts on the origins and propagation mechanisms linking this crisis to the "Great Recession."

Prerequisite: Economics 1101 {101}, 1050, or earned 1101 through placement, and Economics 1102 {102}, or earned 1102 through placement.

**[2323 b - MCSR. The Economics of Information.]**

**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}, 1050, or earned 1101 through placement, and Economics 1102 {102} or earned 1102 through placement; and Mathematics 1600 {161} or higher, or placement in Mathematics 1700, 1750, 1800, or 2000 level.

**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 indicating 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



## COURSES OF INSTRUCTION

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}, 1050, or earned 1101 through placement, and Economics 1102 {102} or earned 1102 through placement; and Mathematics 1600 {161} or higher, or placement in Mathematics 1700, 1750, 1800, or 2000 level.

**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}.

**3302 {360} b. Topics in Finance.** Spring 2015. Gonca Senel.

Provides hands-on practice of financial theory using financial modeling. Addresses real-life financial problems using Excel and VBA. Topics include arbitrage pricing theory, capital asset pricing model, portfolio selection, fixed income securities, and option pricing. Builds on materials covered in Economics 2301 {260}.

Prerequisite: Economics 2301 {260} and 2555 {255}.

**3305 {355} b. Game Theory and Strategic Behavior.** 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 are 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.** 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}.

**3508 b. International Trade.** Fall 2014. Yao Tang.

Seminar. Offers a theoretical and empirical analysis of international trade. Addresses the globalization debate and the relation between trade, growth, and productivity. Particular attention is given to the standard models of trade: the Ricardian model, the Heckscher-Ohlin model, the specific factors model, the monopolistic competition model, and the model of heterogeneous firms and trade. Uses data analysis in order to evaluate the success or shortcomings of the theoretical models. Not open to students who have credit for Economics 3208 {308}.

Prerequisite: Economics 2555 {255} and Economics 2557 {257}.

**3509 {309} b. International Finance.** Fall 2015. Yao Tang.

Seminar. Surveys a number of topics in international finance and international macroeconomics, including balance of payments, exchange rate determination, the Mundell-Fleming 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.** Spring 2016. 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.

**3511 b. Economic Evaluation of Public Programs.** Spring 2015. John M. Fitzgerald.

Seminar. Studies approaches to evaluating the effectiveness of public policy programs. Covers the basics of cost-benefit analysis and emphasizes the empirical methods used to measure and evaluate program impacts. Examines the strengths and limitations of social experiments, quasi-experiments, and non-experimental observational designs with applications to education, health, public assistance, and labor market policies.

Prerequisite: Economics 2557 {257} or Mathematics 2606 {265}, or permission of the instructor.

**3516 {316} b. Econometrics.** Fall 2014. John M. Fitzgerald.

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 placement in Mathematics 1700, 1750, 1800 or 2000 level; 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 2015. 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.

**3525 b. Economic Growth.** Spring 2016. Yao Tang.

Seminar. Vast differences in nations' long-run growth experience significantly affect the degree of inequality and overall welfare of the global population. Offers both theoretical and empirical analyses of macro determinants of economic growth. Explores the role of such key factors as the accumulation of physical capital and human capital, productivity and technology, natural resources, openness to trade and capital flow, institutions, culture, and geography.

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

**3526 {326} b. Trade Doctrines and Trade Deals.** Fall 2015 or Spring 2016. 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 2015. 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.** Fall 2015 or Spring 2016. 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 multiplier-accelerator 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 2015. 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 2016. 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.

**3557 b. Unconventional Monetary Policy.** Spring 2015. Stephen D. Morris.

Seminar. Considers traditional and unconventional monetary policies to stabilize the economy. First analyzes traditional issues in monetary economics, with particular attention to the effects of inflation and taxation on saving, investment, and output. Then examines the role of unconventional policies, such as the expansion of the Federal Reserve's balance sheet during the "Great Recession." The results of such recent monetary policies are put in the context of three other "Great" data points: The Great Depression, Great Inflation, and the Great Moderation.

Prerequisite: Economics 2556 {256}.

**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

Charles Dorn, *Department Chair*

Lynn A. Brettler, *Department Coordinator*

*Associate Professors:* Charles Dorn, Nancy Jennings, Doris A. Santoro

*Instructor:* Alison Miller

*Lecturer:* Kathleen O'Connor

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 traditions of education—to its history and philosophy, 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 courses are required for the Education Studies minor: Education 1101 {101}; three from among Education 2206 {206} (same as Sociology 2206 {206}, 2211 {211}, 2212 {212}) (same as Gay and Lesbian Studies 2120 {212} and Gender and Women's Studies 2282 {282}), 2221 {221}, 2222 {222} (same as Psychology 2012 {222}, 2250 {250}) (same as Government 2940 {219}), 2265 {265}, 2285, and 3325 {325}. 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 initial teacher certification, with highly qualified status.
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-US) 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.

*Physical 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 percent.

### **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.

### **Interdisciplinary Major**

The department participates in an interdisciplinary joint major entitled mathematics and education. See the section on Interdisciplinary Majors.

### **First-Year Seminars**

For a full description of first-year seminars, see pages 159–172.

#### **[1015 {15} c. Urban Education.]**

**1020 {20} c. The Educational Crusade.** Fall 2015. Charles Dorn.

### **Introductory, Intermediate, and Advanced Courses**

**1101 {101} c - ESD. Contemporary American Education.** Fall 2014. Alison Miller. Spring 2015. 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 recent reform movements. 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 2014. Doris Santoro. Spring 2015. The Department.

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.** (Same as Sociology 2206 {206}.)]

**2211 {211} c. Education and the Human Condition.** Spring 2015. 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.

**2221 {221} c. Democracy's Citadel: Education and Citizenship in America.** Spring 2015. 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 2014. Katherine D. O'Doherty.

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. Concepts 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 are 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.** Fall 2014. George S. Isaacson.

A study of the impact of the American legal system on the functioning of schools in the United States through an examination of Supreme Court decisions and federal legislation. Analyzes the public policy considerations that underlie court decisions in the field of education and considers how those judicial interests may differ from the concerns of school boards, administrators, and teachers. Issues to be discussed include constitutional and statutory developments affecting schools in such areas as free speech, sex discrimination, religious objections to compulsory education, race relations, teachers' rights, school financing, and education of the handicapped. (Same as Government 2940 {219}.)

**2251 {251} c. Teaching Writing: Theory and Practice.** Fall 2014. 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 320).

**Education 2272 c. Urban Education.** Fall 2014. Doris Santoro.

Explores the roles of urban public schools in their communities, the historic, sociocultural, and economic contexts for urban schools and examines what we know about excellent teaching and learning in urban schools as well as reform and activism efforts in urban schools and their communities. Films and readings interrogate representations of urban students, their teachers, and their schools. Analyzes the purposes, challenges, and possibilities of urban education, considers schools' relationships to the cities in which they are located, and interrogates the politics of urban teaching. The course perspective views urban schools as sites of promise and innovation as well as sites for social and political struggle. Not open to students who have credit for Education 1015 {15}.

**2285 c. The Ivory Tower: Higher Education in American History.** Fall 2014. Charles Dorn.

What role do colleges and universities play in the United States today? What role have they played over time? Examines the social, political, and economic tensions that transformed American higher education from a collection of small, narrowly defined, post-secondary institutions in the eighteenth century into a vast, multipurpose educational enterprise in contemporary society.

Prerequisite: Education 1020 {020}, 1101 {101}, or one course in history.



**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 2014. Charles Dorn and Nancy Jennings.

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 2014. Charles Dorn and Nancy Jennings.

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 2015. 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 2015. 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.

**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:* Aviva Briefel (Cinema Studies), Brock Clarke†, David Collings, Celeste Goodridge, Marilyn Reizbaum, William C. Watterson\*

*Associate Professors:* Tess Chakkalal (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:* Sarah Braunstein, Morten Hansen, 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. Also, each student must take at least one intermediate seminar (English courses numbered 2000–2049) and 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

## COURSES OF INSTRUCTION

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 cinema 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.

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 221.

### **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 159–172.

**1001 c. Gods and Monsters: Medieval Mythology.** Fall 2014. Emma Maggie Solberg.

**1002 c. Provocative Art.** Fall 2014. Morten Hansen.

**1004 {11} c. Film Noir.** Fall 2014. Ann Louise Kibbie. (Same as Film Studies 1004.)

**1026 {26} c. Fictions of Freedom.** Fall 2014. Tess Chakkalakal. (Same as Africana Studies 1026 {16}.)

**1048 {25} c. Contemporary Short Fiction in English.** Fall 2014. Celeste Goodridge.

**1049 c. The Literature of Adolescent Sexuality.** Fall 2014. Sarah Braunstein. (Same as Gay and Lesbian Studies 1049 and Gender and Women's Studies 1012.)

## 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.** Spring 2015. Aviva Briefel.

Explores the topic of “adaptation,” specifically, the ways in which cinematic texts transform literary narratives into visual forms. Begins with the premise that every adaptation is an interpretation, a rewriting/rethinking of an original text that offers an analysis of that text. Central to class discussions is close attention to the differences and similarities in the ways in which written and visual texts approach narratives, the means through which each medium constructs and positions its audience, and the types of critical discourses that emerge around literature and film. May include works by Philip K. Dick, Charles Dickens, Howard Hawks, Alfred Hitchcock, Stanley Kubrick, David Lean, Anita Loos, Vladimir Nabokov, and Ridley Scott. (Same as Cinema Studies 1104 {104}.)

**1105 {105} c. Introduction to Poetry.** Fall 2014. Marilyn Reizbaum.

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.

**1110 {110} c. English Literature and Social Power.** Fall 2014. David Collings.

Considers whether or not works of literature encode modes of social power, articulate styles of cultural entitlement, revise norms of behavior from the perspective of leisured domesticity, create satisfying narrative solutions to urban conflict, and absorb the difficulties of social life into the workings of individual consciousness. Do literary works reinforce fictions of social power, contest them, or both? Examines the relationship between ideology and literary form, placing both in the context of transformations in English culture from the early eighteenth through the early twentieth century. Discusses writings by Defoe, Pope, Wordsworth, Austen, Dickens, and Woolf alongside critical and interpretive essays.

## Courses in Composition

**1060 {60} c. English Composition.** Fall 2014. Aaron Kitch. Spring 2015. Elizabeth Muther.

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.

**1070 c. The History of the English Language: Writing-Intensive Workshop.** Spring 2015. Emma Maggie Solberg.

Intended for confident writers who want to ensure that they leave college speaking and writing not just proficiently, but also magnificently and irresistibly. Covers the science and history of the English language, beginning with its earliest tribal roots and following through to the innovations of today: the new words we say (like Google) and the new ways we say them (using the vocal fry register, for example). Learn the challenging art of rhetoric from the best: authors include Chaucer, Shakespeare, Jonathan Swift, Mark Twain, and Zora Neale Hurston. Writing intensive.

## **Introductory Courses in Creative Writing**

**1225 {125} c. Introduction to Poetry Writing Workshop.** Fall 2014. Anthony Walton.

Intensive study of the writing of poetry through the workshop method. Students expected to write in free verse and in form and to read deeply from an assigned list of poets.

Prerequisite: Permission of the instructor.

**1228 {128} c. Introductory Fiction Workshop.** Fall 2014. Sarah Braunstein.

Introduces the beginning fiction writer to the craft of fiction writing, with an emphasis on the literary short story. Studies a wide range of published stories as well as examines student work. Critical writings on craft introduce students to technical aspects of the form: character, dialogue, setting, point of view, scene, summary, etc. Exercises and short assignment lead to longer works. Expected to read, comment on, and discuss in depth each story that passes through the workshop, as well as to complete a major revision.

Prerequisite: Permission of the instructor.

## **Advanced Courses in Creative Writing**

**2853 {217} c. Advanced Fiction Workshop: The World in Prose.** Spring 2014. Sarah Braunstein.

An intensive writing workshop designed for students with experience, dedication, and a willingness to take risks with form, style, and content. Assigned readings include published fiction and critical writing on craft, but the central focus of conversation is on student work: producing it, understanding its parts, and learning to revise in the most radical sense, to re-see.

Prerequisite: Permission of the instructor.

**2856 c. Writing Creative Nonfiction through Photography.** Fall 2014 and Spring 2015. Russ Rymer.

A nonfiction writing course using photography as a guide and tool. Students take photos (with any camera: digital, film, disposable, or smart phone) and do a lot of writing: blog posts, profiles, and full-length reported articles. Grapples with structure, metaphor, tone, voice, and pacing, letting photography interrogate the writing. What can such pictorial concerns as focus, composition, width and depth of field, and artist's point of view tell us? Explores how music, movies, and poetry can also guide an approach to writing accomplished nonfiction. Admission is by acceptance. Submit for consideration an original piece or pieces adding up to 1000 words.

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. These seminars are not open to first semester first-year students.

**2003 {219} c. Trolls, Frogs, and Princesses: Fairy Tales and Retellings.** Fall 2014. 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.

**2009 c. Shakespeare in Theory.** Fall 2014. Aaron Kitch.

Seminar. What are the risks and rewards of reading Shakespeare through the lens of literary and cultural theory? Is theory always already alien to Shakespearean texts, or might those texts uncannily anticipate and even make possible contemporary theoretical ideas? How do we understand, for example, Slavoj Žižek's claim that "Shakespeare without doubt has read Lacan"? Places representative plays and poems in conversation with psychoanalysis, postcolonial studies, queer theory, and cultural materialism and considers *Hamlet*, *Henry V*, *Twelfth Night*, and *The Tempest* in dialogue with secondary readings by Marx, Freud, Lacan, Foucault, Derrida, and Sedgwick, among others. *Note:* Fulfills the pre-1800 requirement for English majors.

**2010 c. The Rise of the Novel.** Spring 2015. Ann Louise Kibbie.

Seminar. While prose fiction pre-dates the eighteenth century, it is during this century that both writers and readers begin to construct the idea of "the novel" as we know it. Uses a variety of eighteenth-century novels to explore the evolution of what we call the novel and also explores various critical and theoretical approaches to the genre. Readings include Daniel Defoe's *Robinson Crusoe* and *Roxana*, Samuel Richardson's *Pamela*, Ann Radcliffe's *The Romance of the Forest*, Mary Wollstonecraft's *The Wrongs of Woman*, and Jane Austen's *Sense and Sensibility*, as well as a wide range of critical and theoretical essays.

**Advanced Courses in English and American Literature****2104 c. King Arthur and the Knights of the Round Table.** Fall 2014. Emma Maggie Solberg.

Explores the legends of King Arthur, Merlin, Queen Guinevere, and the Knights of the Round Table, progressing from the stories' origins in medieval myth and romance through to their many Renaissance, Victorian, and modern revivals. Texts include: *Geoffrey of Monmouth*, *History of the Kings of Britain*, *Sir Gawain and the Green Knight*, *Thomas Malory*, *The Death of Arthur*, *Tennyson*, *Idylls of the King*, *Monty Python and the Holy Grail*. *Note:* Fulfills the pre-1800 requirement for English majors.

**2202 {226} c. Renaissance Sexualities.** Spring 2015. Aaron Kitch.

How do Renaissance authors represent sexual desires and dilemmas? What strategies do authors use to represent, for instance, drives that have not been codified and labeled according to modern epistemologies? Topics include the inarticulacy of homoeroticism and other forms of attachment as they shape Shakespearean comedy, minor epic, and tragicomic romance, with special attention to the poetics of same-sex desire, and the erotics of theatrical performance by boy actors on the London stage. Authors include Shakespeare, Thomas Middleton, John Ford, Thomas Crashaw, and Margaret Cavendish, with secondary readings by Eve Sedgwick, Jonathan Goldberg, and Laurie Shannon, among others. *Note:* Fulfills the pre-1800 requirement for English majors.

**2305 c. Imagining London in Eighteenth-Century Literature.** Fall 2014. Ann Louise Kibbie.

Focuses on journals, plays, poems, and novels in which London itself plays a vital role, including James Boswell's *London Journal*, Daniel Defoe's *Moll Flanders*, John Gay's *Trivia*; or *the Art of Walking the Streets of London*, and Frances Burney's *Evelina*. In addition to engaging in critical analysis of these literary texts, students learn how to use digital mapping, spatial analysis, and image markup to imagine eighteenth-century London and work collaboratively to

create maps charting the movements of real people (such as Boswell) and fictional characters (such as Moll Flanders) within the city. Explores theaters, coffeeshouses, shops, prisons, hospitals, parks, and other public spaces in order to contextualize, enrich, and question the literature. *Note:* Fulfills the pre-1800 requirement for English majors.

**2352 {238} c. Natural Supernaturalism.** Spring 2015. David Collings.

Examines the Romantic attempt to blend aspects of the transcendental—such as the sublime, immortality, and divinity—with ordinary life, the forms of nature, and the resources of human consciousness. Discusses theories of the sublime, poetry of the English landscape, mountaintop experiences, tales of transfiguration, and evocations of intimacy with nature. Explores the difficulties of representing the transcendental in secular poetry and the consequences of natural supernaturalism for our own understanding of nature. Authors include Burke, Wordsworth, Coleridge, Kant, and Shelley. (Same as Environmental Studies 2438 {238}.)

**2402 {242} c. Victorian Race and Empire.** Fall 2014. Aviva Briefel.

Examines Victorian constructions of racial difference and imperial relationships in literary texts ranging from the 1830s to the *fin de siècle*. Focuses on issues of representation and racialized identity; fantasies about nationhood and colonialism; narratives of “adventure” at home and abroad; and images of gender and sexuality. Literary criticism central to discussions. Authors may include C. Brontë, Conrad, Doyle, Du Maurier, Haggard, Kipling, Marsh, and F. A. Steel. (Same as Gay and Lesbian Studies 2402 {241} and Gender and Women’s Studies 2402 {241}.)

**2428 c - VPA. Introduction to Film Theory.** Spring 2015. Ann Louise Kibbie.

A survey of some of the major currents in film theory from the early days of motion pictures to the present, including formalism, genre theory, auteur theory, psychoanalytic theory, feminist theory, and queer theory. Includes mandatory evening film screenings; a choice of two screening times will be available for each film. *Note:* Fulfills the film theory requirement for Cinema Studies minors. (Same as Cinema Studies 2428.)

**2452 {246} c. Modern Drama and Performance.** Spring 2015. Marilyn Reizbaum.

Examines dramatic trends of the modern period, beginning with a triumvirate of modern dramatists—Henrik Ibsen, Bertolt Brecht, and Samuel Beckett—and draws lines from their work in drama of ideas, epic theatre, and absurdism to developments in the dramatic arts through the modern period into the twenty-first century. Includes plays by Lorraine Hansberry, Caryl Churchill, and Martin McDonagh. Readings staged. (Same as Gender and Women’s Studies 2262 {262} and Theater 2846 {246}.)

**2456 c. The Modern Poem.** Spring 2015. Marilyn Reizbaum.

Examines the modern poem’s turns in and out of traditional verse forms and free verse. Considers movements such as Imagism, Modernism, Beat poetry, prose poem, slam, and poets associated with them. Includes prose poetics such as those by Ezra Pound, T. S. Eliot, Joseph Brodsky, Eavan Boland, Gwendolen Brooks, Robert Pinsky, Mark Strand, and the study of the mechanics of the poetry, including prosody.

**2540 c. Literature of the American South.** Spring 2015. Celeste Goodridge.

In *The Mind of the South*, Cash begins with the premise that “the south is another land, sharply differentiated from the rest of the American nation,” and he quotes Allen Tate’s description of the south as “Uncle Sam’s other province.” How does this view of the south as a world



elsewhere color our readings of the literature? Does it create bias toward the people and the region? Faulkner repeatedly implied that being from the south was both a curse and a blessing (to question and unpack this binary). Examines Gothic elements in this work as well as representations of transgression, eccentricity, and otherness. Authors include: Capote, Eudora Welty, Carson McCullers, and Flannery O'Connor.

**2544 c. The Great American Novel in the Twentieth Century.** Fall 2014. Morten Hansen.

Examines the tradition of the great American novel across the twentieth century. Why are certain American novels considered “great,” and why does the genre of the novel invite aspirations to greatness? What makes the idea of the great American novel so resilient despite the many upheavals of the twentieth century, from the world wars through the revolutions of the 1960s to the invention of the Internet? How does the inclusion of ethnic-American literature into the American canon change how the great American novel is viewed? Novels include Willa Cather’s *My Ántonia*, F. Scott Fitzgerald’s *The Great Gatsby*, Ralph Ellison’s *The Invisible Man*, Thomas Pynchon’s *The Crying of Lot 49*, Leslie Marmon Silko’s *Ceremony*, and Toni Morrison’s *Beloved*, as well as theoretical texts on the novel and the nation by Mikhail Bakhtin, Benedict Anderson, and Lawrence Buell.

**[2570 {250} c - ESD. The Making of a Race: Latino Fictions.** (Same as Latin American Studies 2005 {250} and Spanish 2505 {250}.)]

**[2571 {221} c - ESD. The Making of a Race: Latino Fictions.** (Same as Latin American Studies 3005 {305} and Spanish 3005 {305}.)]

**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 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 Africana Studies 2583 {283}.)

**2600 {261} c. African American Poetry.** Fall 2014. Elizabeth Muther.

African American poetry as counter-memory—from Wheatley to the present—with a focus on oral traditions, activist literary discourses, trauma and healing, and productive communities. Special emphasis on the past century: dialect and masking; the Harlem Renaissance; Brown, Brooks, and Hayden at mid-century; the Black Arts Movement; black feminism; and contemporary voices. *Note:* Fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 2600 {261}.)

**2604 c. African American Literature and Visual Culture.** Spring 2015. Elizabeth Muther.

Explores creative collaborations and cross currents in African American literary and visual arts over the past century. Considers the problems of minstrelsy, masking, and caricature—as well as instruments of militant image-making in both literary and visual forms. Topics of special interest include uplift and documentary photography; modernist resistance languages of the Harlem Renaissance; shadows, silhouettes, and invisibility; comic strips and graphic narratives; and contemporary images—prints, texts, and illustrations—that introduce alternative socio-political allegories. Taught in conjunction with a special exhibition at the Bowdoin College Museum of Art. (Same as Africana Studies 2604.)



**2704 c. The Rise of Global Literature.** Spring 2015. Morten Hansen.

Examines the rise of transnational literatures, from Goethe's coining of the phrase "world literature" ("Weltliteratur") to contemporary literature of globalization. Focuses on how literature has reacted to the way the world has changed and grown smaller during the last two centuries through readings of novels, novellas, plays, poems, and films, as well as theoretical texts. How does literature stage encounters across cultural and national boundaries? Is it possible for a literary text to represent the whole globe? Special emphasis on the rise of world literature, colonization and its aftermath, global rewritings of the literary tradition, and the emergent spaces of globalization. Authors include Herman Melville, Joseph Conrad, Wole Soyinka, Ngũgĩ wa Thiong'o, Aimé Césaire, Jean Rhys, and Kiran Desai.

**2841 {282} c. Introduction to Literary and Cultural Theory.** Spring 2015. 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.

**2854 {213} c. Telling Environmental Stories.** Fall 2014. Anthony Walton.

Intended for students with a demonstrated interest in environmental studies, as an introduction to several modes of storytelling, which communicate ideas, historical narratives, personal experiences, and scientific and social issues in this increasingly important area of study and concern. Explores various techniques, challenges, and pleasures of storytelling, and examines some of the demands and responsibilities involved in the conveyance of different types of information with clarity and accuracy in nonfiction narrative. Engages student writing through the workshop method and incorporates study of several texts, including *The Control of Nature*, *Cadillac Desert*, *Living Downstream*, and *Field Notes from a Catastrophe*. (Same as Environmental Studies 2423 {216}.)

**2900 c. Reconstruction and Reunion.** Spring 2015. Tess Chakkalakal and Patrick Rael.

An interdisciplinary introduction from the perspectives of art history, literary history, and history to the political, economic, and social questions arising from American Reconstruction (1866-1877) and Reunion (1878-1900) following the Civil War between the North and South. Readings delve into a wide array of primary and secondary sources, including photographs, novels, poetry, and government documents to understand the fierce political debates rooted in Reconstruction that continue to occupy conceptions of America. (Same as Africana Studies 2142 and History 2142.)

**2901 c - IP. World Science Fiction.** Spring 2015. Arielle Saiber.

Explores the local, global, and universal natures of the speculative genre of science fiction (SF) from the early twentieth century through the present. Highlights works from the Golden Age (late 1930s-50s), the New Wave of the 1960s and 70s, cyberpunk in the 1980s, and today's various sub-genres and cross-over incarnations. Approaches the genre as a mode of thought-experimentation and world-building that problematizes actual and possible political, cultural, natural, human, and techno-scientific realities. Among the themes included are the human-machine interface, environmental apocalypse, the alien, and time travel. Readings include short stories from nearly every continent (a number of which are accompanied by

film or other media) and literary criticism. Integral to the course is an exhibition of Latin American SF at the Bowdoin College Museum of Art and a number of conversations with writers, artists, filmmakers, and scholars of SF from around the world. Conducted in English. Counts for the major in English, but not for the Italian minor or romance languages major. (Same as Italian 2500.)

**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.

**3002 {323} c. The James Joyce Revolution.** Fall 2014. Marilyn Reizbaum.

An examination of James Joyce's signal contributions to modern writing and critical theories. Reading includes the major works (*Dubliners*, *Portrait of the Artist as a Young Man*, *Ulysses*), essays by Joyce, and writings by others who testify to the Joyce mystique: e.g., Oliver St. John Gogarty, T. S. Eliot, Virginia Woolf, Jacques Derrida, Seamus Heaney, and Maud Ellmann.

Prerequisite: One course numbered 2000–2969 {200–289} in English.

**3004 {326} c. African American Literature and the Law.** Fall 2014. Tess Chakkalal.

Examines the intersections between literature and law through works of African American literature. Investigates the influence of landmark legal cases—Dred Scott, Plessy v. Ferguson, Brown v. Board of Education, Loving v. Virginia—on the production and dissemination of particular works of American and African American literature. Works by Charles Chesnut, Ralph Ellison, Pauline Hopkins, Harriet Beecher Stowe, and Frederick Douglass are among those considered. *Note:* Fulfills the literature of the Americas requirement for English majors. (Same as Africana Studies 3004 {326}.)

Prerequisite: One course numbered 2000–2969 {200–289} in English or Africana studies.

**3017 {346} c. Living Deliberately.** Fall 2014. David Collings.

Explores a range of possibilities for taking up Thoreau's challenge to "live deliberately," for cultivating an ethics in a world without guarantees. Examines various projects for grasping the essential conditions of existence, overcoming ignorance and despair, assuming an infinite responsibility to others, and sustaining the human against impossible odds. Considers the place of such projects in relation to the negative ethics of crime or addiction, the dubious implications of ethical heroism, the intimate risks of political commitment, and the potential loss of a viable future in the era of climate change. Drawing on novels, memoirs, ecological writing, theories of sexual practice, and philosophical ethics, considers such authors as Thoreau, Forster, Genet, Gordimer, Sapphire, Anita Desai, Kidder, and McKibben, as well as Nietzsche, Levinas, Foucault, Derrida, Halperin, Žižek, and Soni.

Prerequisite: One course numbered 2000–2969 {200–289} in English.

**3023 c. Literature and Natural Philosophy from Plato to Shakespeare.** Spring 2015. Emma Maggie Solberg.

Explores mind-bending texts written before the invention of the categories of “literature” and “science” as we now understand them—interdisciplinary texts that challenge us to reexamine many of our most basic assumptions about the difference between truth and fantasy. Focuses on literary descriptions of what we would call “imaginary” places, tribes, animals, and diseases. Teaches advanced methods of analysis, research, and academic argument. Authors include Plato, Chaucer, Dante, and Shakespeare. *Note:* Fulfills the pre-1800 requirement for English majors.

Prerequisite: One course numbered 2000–2969 {200–289} in English.

**3024 {320} c. Victorian Epics.** Spring 2015. Aviva Briefel.

Examines one of the foremost literary forms of the Victorian period: the long novel. By focusing on a few central texts, investigates the ways in which narrative length shapes stories about wide-ranging issues related to nationalism, science, technology, and empire, as well as allegedly “local” issues regarding domesticity, familial relations, personal adornment, and romance. Authors may include Charles Dickens, George Eliot, William Thackeray, and Anthony Trollope. (Same as Gender and Women’s Studies 3320 {320}.)

Prerequisite: One course numbered 2000–2969 {200–289} in English.

**3025 c. Faulkner and His Literary Descendants.** Spring 2015. Morten Hansen.

What is it about Faulkner’s novels that have inspired so many and such different novelists? How do Faulkner’s novels, and those of his descendants, stage the interplay between the local and the global? What does it mean to create your own literary world, as Faulkner did with Yoknapatawpha County? Situates the works of William Faulkner in relation to a range of authors who take their cues from Faulkner’s complex narrative structures, shifting perspectives, meditations on race, and attention to regional detail. Explores theories of literary influence from Harold Bloom to Édouard Glissant. Novels include Faulkner’s *As I Lay Dying*, *Light in August*, *Absalom, Absalom!*; and *Go Down, Moses*, as well as *One Hundred Years of Solitude*, by Gabriel García Márquez; *Song of Solomon*, by Toni Morrison; *The Brief Wondrous Life of Oscar Wao*, by Junot Diaz; and *A Visit from the Goon Squad*, by Jennifer Egan.

Prerequisite: One course numbered 2000–2969 {200–289} in English.

**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*

Eileen Sylvan Johnson, *Program Manager*; Rosemary Armstrong, *Program Assistant*

*Professors:* Philip Camill (Earth and Oceanographic Science), John Lichter (Biology), Dharni Vasudevan (Chemistry)

*Associate Professors:* Connie Y. Chiang (History), Matthew W. Klinge (History), Lawrence H. Simon (Philosophy)

*Senior Lecturer:* Jill E. Pearlman

*Lecturers:* Anne C. J. Hayden, Eileen Sylvan Johnson

*Contributing Faculty:* Mark O. Battle, David Carlon, David Collings, Vladimir Douhovnikoff\*\*, Damon P. Gannon, Shaun Golding, Natasha Goldman, Laura A. Henry, Guillermo Herrera, Amy S. Johnson, Susan A. Kaplan, Michèle G. LaVigne, Peter D. Lea, Barry Logan, Sarah F. McMahon, Erik Nelson, Emily Peterman, Nancy E. Riley, Collin Roesler, Allen L. Springer\*, Samuel Taylor, Anthony Walton, Allen Wells, Nathaniel T. Wheelwright, Enrique Yepes, Mary Lou Zeeman

### 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} Our Earth: 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.

## COURSES OF INSTRUCTION

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 159–172.

**1004 c. A Global History of Food.** Fall 2014. Thomas Fleischman. (Same as History 1004.)

**[1015 {15} c. Frontier Crossings: The Western Experience in American History.** (Same as History 1020 {15}.)]

**1011 c. Why Architecture Matters.** Fall 2014. Jill Pearlman. (Same as Art History 1011.)

**1026 b. Landscape, Energy, and Culture.** Fall 2014. Shaun Golding. (Same as Sociology 1026.)

### **Introductory, Intermediate, and Advanced Courses**

**1056 {56} a - INS. Ecology and Society.** Spring 2016. 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}.)

**1083 a - MCSR, INS. Energy, Physics, and Technology.** Fall 2014. Madeleine Msall.

How much can we do to reduce the disruptions of the Earth's physical, ecological, and social systems caused by global climate change? How much climate change itself can we avoid? A lot depends on the physical processes that govern the extraction, transmission, storage, and use of available energy. Introduces the physics of solar, wind, nuclear, and hydroelectric power and discusses the physical constraints on their efficiency, productivity, and safety. Reviews current technology and quantitatively analyzes the effectiveness of different strategies to reduce greenhouse gas emissions. Not open to students who have credit for Physics 1140 {104}. (Same as Physics 1083.)

**[1090 {90} a - INS. Understanding Climate Change.** (Same as Biology 1090 {90}.)]

**1101 {101}. Our Earth: Introduction to Environmental Studies.** Every fall. Matthew Klinge and John Lichter.

An interdisciplinary introduction to the environment framed by perspectives from the natural sciences, social sciences, and arts and humanities. Surveys past and present status of scientific knowledge about major global and regional problems, explores both successes and inadequacies of environmental ideas to address specific crises, and assesses potential responses of governments, corporations, and individuals. Topics include food and agriculture, pollution, fisheries, and climate change and energy. Other subjects include biodiversity, population, urbanization, consumption, environmental justice, human and ecological health, and sustainability.

**1102 {102} a - INS. Oceanography.** Every spring. Spring 2015. Collin Roesler.

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 field-based 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 2015. 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/or landslides. Weekly labs and field trips examine local environmental problems affecting Maine's rivers, lakes, and coast. Students complete a community-based research project. (Same as Earth and Oceanographic Science 1305 {104}.)

**1155 c - IP. Into the Wild: Untamed Nature in German-Speaking Culture.** Spring 2015. Jens Klenner.

An examination of the mix of conflicting ideas that shape the many conceptions of "wilderness." Explores the ideas of wilderness as a space without or preceding culture and civilization, the wilderness as a mental state, and as an aesthetic experience. Considers the place of wilderness in the 'urban jungle' of cities. Among other topics, discusses the discovery of the Alps and interrogates the differing German, Austrian, and Swiss perspectives of that mountainous region, but also shows how these European imaginations define American conceptions of mountains. Puts German, Austrian, and Swiss theories and images of wilderness into dialogue with Anglo-American conceptions by comparing literary works, film, artworks, and philosophical texts. No knowledge of German is required. (Same as German 1155.)

**2004 {204} a - MCSR. Understanding Place: GIS and Remote Sensing.** Every year. Spring 2015. 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 and Remote Sensing technology with an emphasis on the biophysical sciences and environmental management 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.**]

**2201 {201} a - MCSR, INS. Perspectives in Environmental Science.** Every spring. Phil Camill and Dharni Vasudevan.

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 2014. 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 2014. 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 placement in biology at the 2000 level.

**2224 {215} a - MCSR, INS. Behavioral Ecology and Population Biology.** Every fall. 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 weekend field trip to Monhegan Island or the Bowdoin Scientific Station on Kent Island. (Same as Biology 2315 {215}.)

Prerequisite: Biology 1102 {102}, 1109 {109}, or placement in biology at the 2000 level.

**2225 {225} a - MCSR, INS. Biodiversity and Conservation Science.** Fall 2015. 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}.)



## COURSES OF INSTRUCTION

Prerequisite: One of the following: Biology 1102 {102}, 1109 {109}, or Environmental Studies 2201 {201} (same as Biology 1158 {158} and Chemistry 1105 {105}).

**2229 {219} a - MCSR, INS. Biology of Marine Organisms.** Every fall. 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 placement in biology at the 2000 level.

**2233 a - MCSR. Marine Molecular Ecology and Evolution.** Fall 2014. Sarah Kingston.

Features the application of molecular data to ecological and evolutionary problems in the sea. Hands-on laboratory work introduces students to sampling, generation, and analysis of molecular data sets with Sanger-based technology and Next Generation Sequencing. Lectures, discussions, and computer-based simulations demonstrate the relevant theoretical principles of population genetics and phylogenetics. A class project begins a long-term sampling program using DNA barcoding to understand temporal and spatial change in the ocean. Taught at the Bowdoin Marine Laboratory. (Same as Biology 2330.)

Prerequisite: Biology 1102 {102} or 1109 {109}, and a course in mathematics; or permission of the instructor.

**2234 a. Dimensions of Marine Biodiversity.** Fall 2014. David Carlon.

Focused laboratory and fieldwork that integrates across the genetic, systematic, and functional aspects of marine biodiversity to understand the ecological and evolutionary significance of biodiversity. Illustrates this approach by featuring three to four different evolutionary clades that are the foundations of different marine communities (e.g. coastal zooplankton, rocky intertidal, soft-bottom benthos, tropical coral reefs, and marine mammals). Taught at the Bowdoin Marine Laboratory. (Same as Biology 3301.)

Prerequisite: Biology 1102 {102} or 1109 {109}, and a course in mathematics; or permission of the instructor.

**[2250 {205} a - INS. Earth, Ocean, and Society.** (Same as Earth and Oceanographic Science 2020 {205}.)]

**2251 {251} a. Marine Biogeochemistry.** Spring 2015. 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.** Every other fall. Fall 2015. 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 2015. Dharni Vasudevan.

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.

**2268 a - MCSR, INS. Molecular Ecology.** Spring 2015. David Carlon.

Develops the theory and practical skills to apply genetic data to ecological questions. Topics include population connectivity and dispersal, mating systems, detecting natural selection in the wild, and the origin and maintenance of biodiversity. Lectures and discussions develop theoretical understanding through worked examples. The laboratory provides hands-on experience in generating genetic data from marine populations, including modules on sampling design, DNA/RNA extraction, Sanger and Next Generation Sequencing technology, and data analysis through modeling. (Same as Biology 2551.)

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

**2270 {270} a. Landscapes and Global Change.** Every other fall. Fall 2014. 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: Earth and Oceanographic Science 2005 {200} (same as Environmental Studies 2221 {200}).

**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

## COURSES OF INSTRUCTION

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 2015. 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.** Every other fall. Fall 2014. 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.** (Same as Earth and Oceanographic Studies 2530 {287}.)]

**2301 {207} b - MCSR. Building Resilient Communities.** Fall 2014. Eileen Johnson.

Examines efforts by communities and regions to build resilience in the face of changing environmental and social conditions. Examines how local leaders can work in complex settings to set goals and mobilize federal, private, and non-profit resources to achieve specific, cross-cutting objectives that include strengthening local economies, safeguarding important environmental values, protecting public health, and addressing issues of economic and social justice. Provides students with firsthand understanding of how Geographic Information Systems (GIS) play an increasingly important role in understanding and informing effective approaches for expanding resilience at a community level by integrating social and natural data to inform policy decision. Students learn GIS as part of the course.

Prerequisite: Environmental Studies 1101 {101}.

**2303 {228} b - MCSR. Natural Resource Economics and Policy.** Spring 2015. 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}, 1050, or earned 1101 through placement.

**2304 {240} b. Environmental Law and Policy.** Fall 2015. 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.** Spring 2015. Laura A. Henry.

Examines environmental politics from a comparative perspective, drawing on case material from the United States, Europe, Latin America, Africa, and Asia. Asks why, despite the fact that many contemporary environmental problems are shared globally, states develop different environmental policies. Readings cover issues ranging from forest conservation to climate policy and consider explanatory factors such as type of political regime, level of economic development, activism by citizens, and culture and values. (Same as Government 2484 {235}.)

[2308 {263} b. **International Environmental Policy.** (Same as Government 2615 {263}.)]

[2311 {237} b. **Changing Cultures and Dynamic Environments.** (Same as Anthropology 2170 {270}.)]

**2312 {272} b - ESD, IP. Contemporary Arctic Environmental and Cultural Issues.** Spring 2015. Susan Kaplan.

Throughout the Arctic, northern peoples face major environmental changes and cultural and economic challenges. Landscapes, icescapes, and seascapes on which communities rely are being transformed, and arctic plants and animals are being affected. Many indigenous groups

## COURSES OF INSTRUCTION

see these dramatic changes as endangering their health and cultural way of life. Others see a warming Arctic as an opportunity for industrial development. Addressing contemporary issues that concern northern peoples in general and Inuit in particular involves understanding connections between leadership, global environmental change, human rights, indigenous cultures, and foreign policies, and being able to work on both a global and local level. (Same as Anthropology 2572 {272}.)

Prerequisite: Anthropology 1050 {102} or 1101 {101}, and Environmental Studies 1101 {101}; or permission of the instructor.

**[2332 {222} b - ESD. Introduction to Human Population.** (Same as Gender and Women's Studies 2224 {224} and Sociology 2222 {222}.)]

**2334 {221} b. Environmental Sociology.** Spring 2015. 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. Connie Chiang or Matthew Klinge. Spring 2015. Matthew Klinge.

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 twenty-first century. 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}.)

**2420 c. The History of Energy.** Fall 2014. David Hecht.

Explores how and why Americans (and others) have made the energy choices that they have. The production and distribution of energy is one of the key challenges for modern societies.

It involves the development of specific technologies and industries—from fossil fuels to solar power to nuclear plants. But the history of energy transcends the technical. It intersects with law, politics, and economics; social norms and cultural values play a role as well. The connections between the technical and non-technical are central to understanding the history of energy itself, as well as its place in the history of the modern United States. (Same as History 2202.)

**2423 {216} c. Telling Environmental Stories.** Fall 2014. Anthony Walton.

Intended for students with a demonstrated interest in environmental studies, as an introduction to several modes of storytelling, which communicate ideas, historical narratives, personal experiences, and scientific and social issues in this increasingly important area of study and concern. Explores various techniques, challenges, and pleasures of storytelling, and examines some of the demands and responsibilities involved in the conveyance of different types of information with clarity and accuracy in nonfiction narrative. Engages student writing through the workshop method and incorporates study of several texts, including *The Control of Nature*, *Cadillac Desert*, *Living Downstream*, and *Field Notes from a Catastrophe*. (Same as English 2854 {213}.)

**[2425 {235} c - ESD. Borderlands and Empires in Early North America.** (Same as History 2180 {235} and Latin American Studies 2180 {236}.)]

**2431 {243} c - VPA. Modern Architecture: 1750 to 2000.** Fall 2015. Jill Pearlman.

Examines major buildings, architects, architectural theories, and debates during the modern period with a strong emphasis on Europe through 1900 and both the United States and Europe in the twentieth century. Central issues of concern include architecture as an important carrier of historical, social, and political meaning; changing ideas of history and progress in built form; and the varied architectural responses to industrialization. Attempts to develop students' visual acuity and ability to interpret architectural form while exploring these and other issues. (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}.)

**2438 {238} c. Natural Supernaturalism.** Spring 2015. David Collings.

Examines the Romantic attempt to blend aspects of the transcendental—such as the sublime, immortality, and divinity—with ordinary life, the forms of nature, and the resources of human consciousness. Discusses theories of the sublime, poetry of the English landscape, mountaintop experiences, tales of transfiguration, and evocations of intimacy with nature. Explores the difficulties of representing the transcendental in secular poetry and the consequences of natural supernaturalism for our own understanding of nature. Authors include Burke, Wordsworth, Coleridge, Kant, and Shelley. (Same as English 2352 {238}.)

**2444 {244} c - VPA. City, Anti-City, Utopia: Building Urban America.** Spring 2016. 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.** Spring 2015. 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 2016. Sarah McMahan.

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}.)

**2459 c. Ethics of Climate Change.** Spring 2016. Kristi Olson.

Examines moral questions raised by climate change, including: What would constitute a just allocation of burdens? What do we collectively owe to future generations? If collective action fails, what are our obligations as individuals? When, if at all, is civil disobedience justified? Readings drawn primarily from contemporary philosophy. (Same as Philosophy 2359.)

**2461 c - VPA. Seashore Digital Diaries.** Fall 2014. David Conover.

Exploration of techniques and principles of digital multimedia as tools of inquiry at the seashore. Through assigned and self-designed independent and group projects, studies the seashore as a zone of extremity and movement, in light of its historical and contemporary contexts within the visual arts and film. Techniques introduced include time-lapse sequences of seascape and aquaria, portraits of characters on the working waterfront, and motion graphic visualizations. Seminar discussions, biweekly field trips to the seashore, and class critiques. (Same as Film Studies 2110 and Visual Arts 2110.)

Prerequisite: one course in cinema studies, environmental studies or visual arts.



**2462 c - VPA. Reel Places: Framing Interactions between Humans and their Environments.** Fall 2014. Sarah Childress.

Considers place as a way to examine how humans experience and engage the world. Of particular interest are how filmmakers create plausible worlds, how place transcends setting to become a character or collaborator in film narratives from around the world, how film texts are tied to the contexts of their making, and how the social spaces of film viewing shape reception. Attendance at weekly evening screenings is required, as is a willingness to participate in off-campus commercial theater and film festival screenings. (Same as Film Studies 2262.)

**2463 c - VPA. Science to Story, Digital, and Beyond.** Spring 2015. David Conover.

Examines the translation of science into stories and digital media that successfully engage public attention. What enables ordinary citizens to form an understanding consistent with the best available scientific evidence? What gets in the way of forming such an understanding? What communication strategies and formats successfully move science to civic society? Case studies include translation of the following areas of climate change science: synthetic biology and algae as biofuel, ocean acidification, rising sea levels, and super storms. Class reading and writing assignments and seminar discussions lead to development of group presentations and production of digital media. (Same as Cinema Studies 2120 and Visual Arts 2120.)

Prerequisite: one course in cinema studies, environmental studies or visual arts.

[2473 {273} c. **Drawing on Science.** (Same as Visual Arts 2202 {271}.)]

**2475 c - IP, VPA. Ecocinema: China's Ecological and Environmental Crisis.** Spring 2015 and Spring 2017. Shu-chin Tsui.

Examines how China's economic development has caused massive destruction to the natural world and how environmental degradation affects the lives of ordinary people. An ecological and environmental catastrophe unfolds through the camera lens in feature films and documentaries. Central topics include the interactions between urbanization and migration, humans and animals, eco-aesthetics and manufactured landscapes, local communities and globalization. Considers how cinema, as mass media and visual medium, provides ecocritical perspectives that influence ways of seeing the built environment.

The connections between cinema and environmental studies will enable students to explore across disciplinary as well as national boundaries. *Note:* Fulfills the film theory requirement for cinema studies minors. (Same as Asian Studies 2075 and Cinema Studies 2075.)

[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.** (Same as Latin American Studies 3245 {345} and Spanish 3245 {345}.)]

**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.** Spring 2015. 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?



## COURSES OF INSTRUCTION

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 CO<sub>2</sub>, and disturbance to examine several issues: long-term carbon cycling and climate, major extinction events, the rise of C<sub>4</sub> 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.

**3906 {306} a. Transformation of Organic Chemicals in the Environment.** Fall 2014. Dharni Vasudevan.

Human activities result in the intentional or inadvertent release of organic chemicals into the natural environment. Interconnected physical, chemical, and biological processes influence the environmental fate of chemicals and the extent of human and ecosystem exposure. Focuses on the thermodynamics and kinetics of chemical transformations in the natural environment via nucleophilic, redox, photolytic, and biological (microbial) reactions. (Same as Chemistry 3060 {306}.)

Prerequisite: Chemistry 2250 {225}.

**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.** Fall 2014. Susan Kaplan.

Cultures around the world maintain different stances about non-human animals. People eat meat or avoid doing so. Religions advocate veneration, fear, or loathing of certain animals. Domesticated animals provide us company, labor, and food. Wild animals are protected, studied, photographed, captured, and hunted. Animals inhabit novels, are featured in art, and adorn merchandise. Students read ethnographies, articles, animal rights literature, and children's books; study museum collections; and examine animal themes in films and on the web. Employing anthropological perspectives, considers what distinguishes humans from other animals, how cultures are defined by peoples' attitudes about animals, and what might be our moral and ethical responsibilities to other creatures. (Same as Anthropology 3210 {321}.)

Prerequisite: Anthropology 1101 {101} or 1150 {102}, and one course numbered 2000-2969 {200-289} in anthropology; or permission of the instructor.

**3943 {343} a. Tectonics and Climate.** Spring 2015. Emily Peterman.

Exploration of the complex interactions between tectonics and climate. Discussion of

current research is emphasized by reading primary literature, through class discussions and presentations, and by writing scientific essays. The emphasis on current research means topics may vary, but will include topographic growth of mountain belts and Cenozoic climate change. (Same as Earth and Oceanographic Science 3140 {343}.)

Prerequisite: Earth and Oceanographic Science 2005 {200} (same as Environmental Studies 2221 {200}), or permission of the instructor.

**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.** Spring 2015. Allen L. Springer.

Examines the complex relationship between law and policy in international relations by focusing on two important and rapidly developing areas of international concern: environmental protection and humanitarian rights. Fulfills the environmental studies senior seminar requirement. (Same as Government 3610 {363}.)

**3975 {375}. Feeding the World: The Nature and Challenges of Our Food and Agricultural Systems.** Spring 2016. 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 Klinge.

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.** (Same as Philosophy 3392 {392}.)]

**3998 {398} c. The City since 1960.** Fall 2014. Jill Pearlman.

Seminar. Focuses on five important developments in the history of the American city (with a brief excursion to London) during the past half-century. Themes include: urban renewal's rise and fall, historic preservation, gentrification, urban disasters and their aftermaths, and the changing notion of community. Examines these issues in some depth through primary and secondary source readings and, at the end of the course, considers the city today. Throughout the semester, students pursue a research project of their own, culminating in a presentation to the class and a substantial (twenty-five-page) paper.

**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.]**

### **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.** Every other spring.  
Spring 2016. The Department.

## FIRST-YEAR SEMINARS

**Africana Studies 1010 {10} b. Racism.** Fall 2014. 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, and secondarily a 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 1015 c. Women and the Blues.** Fall 2014. Susan Taffe Reed.

An in-depth interdisciplinary examination of historical, social, and cultural contexts of women and blues music of the twentieth century. Focuses on the lives, careers, and social realities of female African American blues singers such as Bessie Smith and Gertrude “Ma” Rainey and their contributions at the forefront of blues development. Also looks at the influence of blues oral tradition on song lyrics and vocal techniques, from the psychedelic blues of Janis Joplin to women performing jazz, from a socio-cultural perspective. No musical performance background is expected. Involves both analytical writing and creative projects. (Same as Gender and Women’s Studies 1030 and Music 1015.)

**Africana Studies 1019 c. Holy Songs in a Strange Land.** Spring 2015. 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 1026 {16} c. Fictions of Freedom.** Fall 2014. Tess Chakkalalal.

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 English 1026 {26}.)

**[Africana Studies 1040 {13} c. From Montezuma to Bin Laden: Globalization and Its Critics.** (Same as History 1040 {16}.)]

**Art History 1010 {11} c. Visual Culture and the Holocaust.** Fall 2014. Natasha Goldman.

Since 1945, memorials, works of art in public space, and museums have been dedicated to remembering the Holocaust. Examines works of art and museums produced in, among other countries, Germany, Israel, Poland, and the United States. Addresses Nathan Rapoport's Warsaw Ghetto Monument in Poland, Peter Eisenman's Holocaust Memorial in Berlin, and the United States Holocaust Memorial Museum in Washington, DC, among other sites. Interprets works through the lenses of historical and art historical contexts, as well as theories of memory and trauma. Explains and explores a range of stylistic approaches of memorials, including representational, abstract, minimal, conceptual, postmodern, and new media art. Two field trips include visits to the Boston Holocaust Memorial and the Holocaust and Human Rights Center in Augusta, Maine.

**Art History 1011. c. Why Architecture Matters.** Fall 2014. Jill Pearlman.

Architecture is unavoidable: we spend our lives in and around buildings and in spaces and landscapes defined by them. Too often we take built environment for granted, oblivious of how it affects us and shapes our lives. Explores architecture's critical role in creating a sense of place, settings for community, symbols of our aspirations and fears, cultural icons and political ideals. Investigates the fundamental principles of architecture and studies closely some of history's great buildings and spaces. Students learn how to talk and write about architecture. (Same as Environmental Studies 1011.)

**1019 {19} c. Representing the Modern Artist in Word and Image.** Fall 2014. 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 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.

**1010 b. Health Care Disparities in the United States—A Public Challenge.** Fall 2014. Stephen Loeb.

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.

**1020 c. How to Read a Million Books.** Fall 2014. Crystal Hall.

The explosion of digital editions and collections of books offers unprecedented access to rare individual texts and massive bodies of literary and cultural material. What does it mean to

“read” a million books? How does it relate to (or obscure) traditional “close reading” of texts? Are computer codes and algorithms something we might read? What kinds of new literary analysis do they make possible? Applies and critiques “distant reading” as a method of making large text collections accessible to human readers. Readings include single texts from different genres, multimillion book collections, and the most recent criticism and theory related to digital texts.

**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 century. 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. 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 1013 c. Japan in the World.** Fall 2014. Tristan Grunow.

Introduces students to the history, culture, and global interactions of Japan with a focus on the modern (post-1868) period through examination of primary and secondary sources, popular literature, and film. “De-exoticizes” Japan, deconstructs the terms “Eastern” and “Western,” and considers how tensions between “Tradition/Modernity” and “Inside/Outside” have propelled modern Japanese historical development. Topics include: differing narratives of modernization; invention of “traditional” Japanese culture; the Western discovery of Japan/Japanese discovery of the West; changes in everyday life; tensions of modernity and tradition; war and defeat; and “Japanese Pop Culture.” (Same as History 1033.)

**Asian Studies 1043 {23} c. East Asian Genre Cinema: Action, Anime, and Martial Arts.** Fall 2014. 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 national-transnational; studies genre-specific issues such as spectators’ perception or industry practices to discern the role of gender, nation, power, and historiography. Students gain the ability to explain the theoretical concepts of genre cinema, analyze the genre’s visual formation, and comprehend the social-cultural implications of the genre. *Note:* Fulfills the non-US cinema requirement for the cinema studies minor. (Same as Film Studies 1043 {23}.)

**Asian Studies 1046 {20} b. Global Media and Politics.** Fall 2014. 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. (Same as Government 1026{20}.)

**Biology 1023 {23} a. Personal Genomes.** Fall 2014. Jack Bateman.

An introduction to the field of genetics and its impact on the modern world. As the cost of DNA sequence analysis plummets, many believe that sequencing entire genomes of individuals

will soon become part of our routine preventive healthcare. How can information gleaned from your genome affect decisions about your health? Beyond medical applications, how might personal genetic information be used in other areas of your life and in society as a whole? What ethical, legal, and social issues are raised by widespread use of genetic information? Explores these questions through readings, discussion, and writing assignments.

**Biology 1026 {26} a. Adventures in Neuroscience: Aphasias, Auras, and Axons.** Fall 2015. Hadley Horsch.

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 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.** Spring 2016. William Jackman.

Seminar exploring our deep evolutionary history from the first multicellular animals to *Homo sapiens*. Emphasizes the living and fossil species that illustrate important transitions that resulted in the evolution of new anatomical features, physiology, and behavior. Includes an embryo observation unit with data collection and analysis. Readings from online media, popular science books, and primary scientific articles. Frequent writing with an emphasis on styles used in modern biology.

[Classics 1011 {11} c. Shame, Honor, and Responsibility.]

**Classics 1017 {17} c. The Heroic Age: Ancient Supermen and Wonder Women.** Fall 2014. Michael Nerdahl.

The modern concept of the superhero is an enduring vestige of the ancient concept of the “hero,” the ancient Greek word used to describe men of exceptional ability. Looks at heroes and heroines in ancient literature and culture, considering a range of sources from ancient Babylon to imperial Rome. Considers the changing definition of “hero,” the cultural values associated with heroism, the role played by gender and sexuality in the definition of the hero, and analogues to ancient heroes in modern cinema. Examines more nebulous and problematic models for the ancient “villain” and considers how contrasting definitions of hero and antihero can be used to understand ancient thought concerning human nature.

[Economics 1018 {18} b. The Art of the Deal: Commerce and Culture.]

**1027 b. The Quiet Revolution: Women, Work, and Family in the Twentieth Century.** Fall 2014. Rachel Connelly.

Explores the revolutionary changes in fertility, marriage, divorce, educational attainment, and employment affecting all aspects of women’s lives that occurred over the course of the twentieth century (and on to today). From Lillian Gilbreth (the mother in the book *Cheaper by the Dozen*, who was one of the first working female engineers holding a PhD) to Rosie the Riveter; from June Cleaver to Murphy Brown; from “Opting Out” to “Leaning In,” these changes are all around us. Focuses mainly on women in developed countries. Students are not required to have any prior knowledge of economics.

[Education 1015 {15} c. Urban Education.]



**Education 1020 {20} c. The Educational Crusade.** Fall 2015. Charles Dorn.

Why do you go to school? What is the central purpose of public education in the United States? Should public schools prepare students for college? The workforce? Competent citizenship? Who makes these decisions and through what policy process are they implemented? Explores the ways that public school reformers have answered such questions, from the “Common School Crusaders” of the early nineteenth century to present advocates of “No Child Left Behind.” Examining public education as both a product of social, political, and economic change and as a force in molding American society, highlights enduring tensions in the development and practice of public schooling in a democratic republic.

**English 1001 c. Gods and Monsters: Medieval Mythology.** Fall 2014. Emma Maggie Solberg.

Introduces students to the Celtic, Germanic, and Norse mythologies that flourished in and around the British Isles before (and later, in spite of) the triumph of Christianity—the stories of gods (Thor and Loki), heroes (Beowulf and Cú Chulainn), and monsters (orcs, giants, and dragons) that are the blueprints of so many of our fairy tales and fantasies. Texts include: *Beowulf*; *The White Book of Rhydderch* and *The Red Book of Hergest*; *The Prophecies of Merlin*; *The Tain*; *Snorri Sturluson*, *The Prose Edda*; *The Völsunga Saga*.

**English 1002 c. Provocative Art.** Fall 2014. Morten Hansen.

Examines the history of avant-garde and experimental literature and art through the twentieth century, from Dada cabarets to Pussy Riot. Can art and literature really bring about political or social change? Can we talk about a tradition of provocative art, or is each new provocation a break with the past? What happens when writers and artists start mixing different media and mixing highbrow with lowbrow? Works include surrealist poems and films; poetry by Allen Ginsberg, Amiri Baraka, Adrienne Rich, and Kenneth Goldsmith; essays and manifestos by André Breton, Antonin Artaud, John Cage, and Valerie Solanas; visual art by Marcel Duchamp, Andy Warhol, and Robert Smithson; as well as punk and rap.

**English 1004 {11} c. Film Noir.** Fall 2014. Ann Kibbie.

A survey of film noir from the hard-boiled detective films of the 1940s to later films that attempt to re-imagine the genre. Films include *The Big Sleep*; *Murder, My Sweet*; *Double Indemnity*; *Gun Crazy*; *In a Lonely Place*; and *Chinatown*. Readings include some of the original novels that were adapted for the screen, as well as works of film criticism and/or theory. Includes mandatory evening film screenings: a choice of two screening times available for each film. (Same as Film Studies 1004.)

**English 1026 {26} c. Fictions of Freedom.** Fall 2014. 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 1048 {25} c. Contemporary Short Fiction in English.** Fall 2014. 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.



**English 1049 c. The Literature of Adolescent Sexuality.** Fall 2014. Sarah Braunstein.

Adolescents may be too young and vulnerable to withstand life under adult rules, but too smart and full of emotion to stand the rules of childhood. The result can be chaos, passion, drama—especially in expressions of sexuality. Examines artistic representations of adolescent sexual life during and after the great shift in sexual norms of the 1960s. Creative work—novels, short stories, narrative nonfiction, and films—are the primary source material, with scholarly readings supporting study. Students write both analytic papers and creative prose. (Same as Gay and Lesbian Studies 1049 and Gender and Women’s Studies 1012.)

**Environmental Studies 1004 c. A Global History of Food.** Fall 2014. Thomas Fleischman.

Examines the shifting relationship between people, food, and the environment that ties them together. How have distance and space between the sites of production and consumption affected the economic and social relations of food? How has geography influenced the types of food people eat? How do views of scarcity and plenty shape approaches to farming? What is the role of governments and markets in agriculture? How does food refract and transform social divisions, cultural attitudes, and daily life? Topics include rural development; subsistence gardening; famine; histories of sugar, corn, pork, fish, whales, ice cream, and anything else that fits on a plate. (Same as History 1004.)

**Environmental Studies 1011 c. Why Architecture Matters.** Fall 2014. Jill Pearlman.

Architecture is unavoidable: we spend our lives in and around buildings and in spaces and landscapes defined by them. Too often we take built environment for granted, oblivious of how it affects us and shapes our lives. Explores architecture’s critical role in creating a sense of place, settings for community, symbols of our aspirations and fears, cultural icons and political ideals. Investigates the fundamental principles of architecture while studying closely some of history’s great buildings and spaces. Students learn how to talk about architecture and write about it. (Same as Art History 1011.)

**[Environmental Studies 1015 {15} c. Frontier Crossings: The Western Experience in American History.** (Same as History 1020 {15}.)]

**Environmental Studies 1026 b. Landscape, Energy, and Culture.** Fall 2014. Shaun Golding.

Explores current controversies in energy, giving particular attention to debates surrounding the implementation of renewable energy in northern New England. Through both popular and scholarly readings and one mandatory field trip, engages with critical perspectives on consumer-oriented culture and identities and on tensions between urban and rural visions of landscape. Contemplates the social structures governing regional development and planning in which renewable energy strategies are framed. (Same as Sociology 1026.)

**Film Studies 1004 c. Film Noir.** Fall 2014. Ann Kibbie.

A survey of film noir from the hard-boiled detective films of the 1940s to later films that attempt to re-imagine the genre. Films include *The Big Sleep*; *Murder, My Sweet*; *Double Indemnity*; *Gun Crazy*; *In a Lonely Place*; and *Chinatown*. Readings include some of the original novels that were adapted for the screen, as well as works of film criticism and/or theory. Includes mandatory evening film screenings: a choice of two screening times available for each film. (Same as English 1004 {11}.)

**Film Studies 1043 {23} c. East Asian Genre Cinema: Action, Anime, and Martial Arts.**

Fall 2014. 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 national-transnational; studies genre-specific issues such as spectators' perception or industry practices to discern the role of gender, nation, power, and historiography. Students learn theoretical concepts of genre cinema, analyze the genre's visual formation, and comprehend the social-cultural implications of the genre. *Note:* Fulfills the non-US cinema requirement for cinema studies minors. (Same as Asian Studies 1043 {23}.)

**Gay and Lesbian Studies 1016 {16} c. Christian Sexual Ethics.** Spring 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 1017 {17} and Religion 1017 {16}.)

**Gay and Lesbian Studies 1049 c. The Literature of Adolescent Sexuality.** Fall 2014. Sarah Braunstein.

Adolescents may be too young and vulnerable to withstand life under adult rules, but too smart and full of emotion to stand the rules of childhood. The result can be chaos, passion, drama—especially in expressions of sexuality. Examines artistic representations of adolescent sexual life during and after the great shift in sexual norms of the 1960s. Creative work—novels, short stories, narrative nonfiction, and films—are the primary source material, with scholarly readings supporting study. Students write both analytic papers and creative prose. (Same as English 1049 and Gender and Women's Studies 1012.)

**Gender and Women's Studies 1012 c. The Literature of Adolescent Sexuality.** Fall 2014. Sarah Braunstein.

Fiction shows us the rules of life: how these rules confine us, free us, shape us, threaten us, and make us who we are. There's one set of rules for children, another for adults, that much is clear. But what about adolescents? Whose rules do they play by? Adolescents may be too young and vulnerable to withstand life under adult rules but too smart and full of emotion to stand the old rules of childhood. The result can be chaos, passion, drama, and great discovery. Examines artistic representations of adolescent sexual life during and after the great shift in sexual norms of the 1960s. Creative work—novels, short stories, narrative nonfiction, and films—is the primary source material, with supporting scholarly readings. Investigates such topics as subject/object dichotomies, LGBTQ identities, violence, virginity, pleasure, health education, narrative ownership, and the politics of empowerment. Students write both analytic papers and creative prose. (Same as English 1049 and Gay and Lesbian Studies 1049.)

**[Gender and Women's Studies 1014 {30} b. Mothers, Sisters, and Facebook Friends: Is Feminism a Dysfunctional Family?]**

**Gender and Women's Studies 1017 {17} c. Christian Sexual Ethics.** Spring 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 1016 {16} and Religion 1017 {16}.)

**Gender and Women's Studies 1020 {20} c. In Sickness and in Health: Public Health in Europe and the United States.** Fall 2015. Susan Tananbaum.

Introduces a variety of historical perspectives on illness and health. Considers the development of scientific knowledge and the social, political, and economic forces that have influenced public health policy. Topics include epidemics, maternal and child welfare, AIDS, and national health care. (Same as History 1010 {20}.)

**Gender and Women's Studies 1030 c. Women and the Blues.** Fall 2014. Susan M. Taffe Reed.

An in-depth interdisciplinary examination of historical, social, and cultural contexts of women and blues music of the twentieth century. Focuses on the lives, careers, and social realities of female African American blues singers such as Bessie Smith and Gertrude "Ma" Rainey and their contributions at the forefront of blues development. Also looks at the influence of blues oral tradition on song lyrics and vocal techniques, from the psychedelic blues of Janis Joplin to women performing jazz, from a socio-cultural perspective. No musical performance background is expected. Involves both analytical writing and creative projects. (Same as Africana Studies 1015 and Music 1015.)

**Gender and Women's Studies 1033 c. Sexuality and Imperialism: Race and Gender in Colonial Asia.** Fall 2014. Frances Gouda.

Examines how East and West clashed over competing notions about sexuality, gender relations, and family structures. In colonial societies such as British-India, French Indochina (Vietnam), and the Dutch East Indies (Indonesia), institutions like polygamy, the harem, temple prostitution, widow burning, and child marriage were shocking to civil servants and settlers from Europe. White-skinned Europeans felt surrounded by alien cultures because of their subjects' skin color as well as their peculiar, even abhorrent, sexual practices. Viewing Asian cultures as inferior bolstered a Western sense of racial superiority and vindicated Europeans' so-called natural right to occupy and rule large territories in South and Southeast Asia. By exploring nineteenth- and early twentieth-century ethnographic accounts, travel literature, scientific texts on racial hierarchies, and colonial novels—in addition to analyzing several films set in colonial India, Vietnam, and Indonesia—students explore the evolving power relationships between European settlers and the native inhabitants of colonial Asia.

**German 1026 c. Memories, Secrets, and Lies: Autobiographical Texts from Rilke to Spiegelman.** Fall 2014. Kathryn Sederberg.

Autobiographical texts are all around us, from the bestseller table in the bookstore to movie theater marquee. Although the tagline "Based on a True Story" is summoned to indicate a faithful relation between "real" events and their representation, all texts rely on the techniques of storytelling. Investigates how people tell stories about themselves, looking closely at issues of identity, subjectivity, memory, and representation. Explores various forms of life writing,

including autobiographies, memoirs, and diaries. Readings include works by authors and artists (Goethe, Rilke, Spiegelman), as well as texts by “ordinary” people who write to explore, manage, and represent themselves. Close work with texts as well as critical and creative writing assignments. All course readings in English.

**[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 1001 {25} b. Representation, Participation, and Power in American Politics.** Fall 2014. 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 2014. 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 2014. 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.** Fall 2014. Paul N. Franco.

An introduction to the fundamental issues of political philosophy: human nature, the relationship between individual and political community, the nature of justice, the place of virtue, the idea of freedom, and the role of history. Readings span both ancient and modern philosophical literature. Authors may include Plato, Aristotle, Hobbes, Locke, Rousseau, the American Founders, Tocqueville, Mill, and Nietzsche.

**Government 1025 {18} b. NGOs in Politics.** Fall 2014. Laura A. Henry.

Nongovernmental organizations (NGOs) are thought to play a crucial role in politics—monitoring 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 2014. 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. (Same as Asian Studies 1046 {20}.)

[**Government 1030 {10} b. The Pursuit of Peace.**]

**Government 1031 b. Weapons of the Weak.** Fall 2014. Barbara Elias.

Despite enjoying a preponderance of resources, the rich and mighty don't always win in life, or in war. Why? How do peasants and insurgents impose their will on more "powerful" organizations? How do wealthy armies at times lose wars to impoverished rebels? Whereas money and material can be measured, divided, and counted in a spreadsheet, less quantifiable factors in conflict such as ideas, identity, legitimacy, willpower, and fortitude are also important in determining war outcome, perhaps providing surprising opportunities for political forces that are traditionally considered "weak." Exploring the American experience in WWII and Vietnam for context, texts include declassified US national security documents and strategic documents from insurgent leaders.

[**Government 1037 {11} b. The Korean War.**]

**History 1004 c. A Global History of Food.** Fall 2014. Thomas Fleischman.

Examines the shifting relationship between people, food, and the environment that ties them together. How have distance and space between the sites of production and consumption affected the economic and social relations of food? How has geography influenced the types of food people eat? How do views of scarcity and plenty shape approaches to farming? What is the role of governments and markets in agriculture? How does food refract and transform social divisions, cultural attitudes, and daily life? Topics include rural development; subsistence gardening; famine; histories of sugar, corn, pork, fish, whales, ice cream, and anything else that fits on a plate. (Same as Environmental Studies 1004.)

**History 1006 {10} c. Monsters, Marvels, and Messiahs.** Fall 2014. Dallas Denery.

Examines how Europeans have sought to understand themselves and the world around them through travel and travel literature. Particular attention paid to the fascinating ways in which Europeans have used travel narratives to define and distinguish themselves from their "others." *Note:* This course fulfills the pre-modern requirement for history majors.

**History 1010 {20} c. In Sickness and in Health: Public Health in Europe and the United States.** Fall 2015. Susan Tananbaum.

Introduces a variety of historical perspectives on illness and health. Considers the development of scientific knowledge, and the social, political, and economic forces that have influenced public health policy. Topics include epidemics, maternal and child welfare, AIDS, and national health care. (Same as Gender and Women Studies 1020 {20})

**History 1014 {12} c. Utopia: Intentional Communities in America, 1630–1997.** Fall 2014. Sarah McMahan.

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 1018 {11} c. Memoirs and Memory in American History.**]

[**History 1020 {15} c. Frontier Crossings: The Western Experience in American History.** (Same as Environmental Studies 1015 {15}.)]

**History 1022 {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; but is deeply intertwined with the political, institutional, and cultural history of modern America.

**History 1033 c. Japan in the World.** Fall 2014. Tristan Grunow.

Introduces students to the history, culture, and global interactions of Japan with a focus on the modern (post-1868) period through examination of primary and secondary sources, popular literature, and film. “De-exoticizes” Japan, deconstructs the terms “Eastern” and “Western,” and considers how tensions between “Tradition/Modernity” and “Inside/Outside” have propelled modern Japanese historical development. Topics include differing narratives of modernization, invention of “traditional” Japanese culture, the Western discovery of Japan/Japanese discovery of the West, changes in everyday life, tensions of modernity and tradition, war and defeat, and Japanese pop culture. (Same as Asian Studies 1013.)

**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. 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 1040 {16} c. From Montezuma to Bin Laden: Globalization and Its Critics.** (Same as Africana Studies 1040 {13}.)]

**History 1044 c. The Historical and Contemporary Maya.** Spring 2015. Allen Wells.

Examines the historical and contemporary Maya from pre-Columbian times to the present, with special attention paid to the Maya of Guatemala and the Yucatán peninsula. Readings include Spanish chronicles, Maya testimonies, travelers’ accounts, scholarly monographs, and ethnographies. Among the topics explored are: the importance of family, community, and

spirituality; resistance and adaptation to the conquest; the challenges of acculturation; and the importance of the environment in shaping material life. (Same as Latin American Studies 1044.)

**Interdisciplinary Studies 1010 {10} b. Health Care Disparities in the United States—A Public Challenge.** Fall 2014. Stephen F. Loeb.

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.

**Interdisciplinary Studies 1020 c. How to Read a Million Books.** Fall 2014. Crystal Hall.

The explosion of digital editions and collections of books offers unprecedented access to rare individual texts and massive bodies of literary and cultural material. What does it mean to “read” a million books? How does it relate to (or obscure) traditional “close reading” of texts? Are computer codes and algorithms something we might read? What kinds of new literary analysis do they make possible? Applies and critiques “distant reading” as a method of making large text collections accessible to human readers. Readings include single texts from different genres, multimillion book collections, and the most recent criticism and theory related to digital texts.

**Latin American Studies 1026 b. The Borderlands of US Empire: Puerto Rican Histories and Identities.** Fall 2014. Melissa Rosario.

Examines the Puerto Rican experience on island and in mainland US Begins with a review of the history of US–Puerto Rico relations in political and legal spheres. Explores the theory of borderlands (Gloria Anzaldúa) and considers its connections with this history. Next, focuses on language, migration, and settlement in the diaspora and explores the role of these processes in gendering and racializing Puerto Ricans. Creative writings and forms of cultural production on identity by Puerto Ricans examined at various intervals over the course of the semester to supplement historical and ethnographic texts. (Same as Anthropology 1026.)

**Latin American Studies 1044 c. The Historical and Contemporary Maya.** Spring 2015. Allen Wells.

Examines the historical and contemporary Maya from pre-Columbian times to the present with special attention paid to the Maya of Guatemala and the Yucatán peninsula. Readings include Spanish chronicles, Maya testimonies, travelers’ accounts, scholarly monographs, and ethnographies. Among the topics explored are the importance of family, community and spirituality, resistance and adaptation to the conquest, the challenges of acculturation, and the importance of the environment in shaping material life. (Same as History 1044.)

**Music 1011. Holy Songs in a Strange Land.** Spring 2015. 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 included as well. (Same as Africana Studies 1019.)

**Music 1015 c. Women and the Blues.** Fall 2014. Susan M. Taffe Reed.

An in-depth interdisciplinary examination of historical, social, and cultural contexts of women and blues music of the twentieth century. Focuses on the lives, careers, and social realities of female African American blues singers such as Bessie Smith and Gertrude “Ma” Rainey and their contributions at the forefront of blues development. Also looks at the influence of blues oral tradition on song lyrics and vocal techniques, from the psychedelic blues of Janis Joplin to women performing jazz, from a socio-cultural perspective. No musical performance background is expected. Involves both analytical writing and creative projects. (Same as Africana Studies 1015 and Gender and Women’s Studies 1030.)

**Philosophy 1035 {15} c. Altruism.** Fall 2014. Lawrence Simon.

What is altruism? Does it really exist, or are all our actions really self-interested? Are self-interest and altruism in conflict? How do we understand altruism from an evolutionary perspective? Can other animals act altruistically? Does morality require that we be altruistic? Are there limits on the amount of altruism morality can require of us? Examines these and related questions concerning the nature of altruism and its role in human life from biological, psychological, and philosophical perspectives.

**Philosophy 1039 c. Existentialism.** Fall 2014. Sarah Conly.

Does life have meaning? If so, what is it? If not, how should we proceed? What is the nature of human existence, and how can we understand this? Existentialism is the name given to a diverse group of thinkers who have tried to answer these questions both through philosophy and fiction. Readings include Kierkegaard, Nietzsche, Sartre, Camus, and de Beauvoir.

[**Philosophy 1040 {14} c. Personal Identity.**]

**Religion 1014 {14} c. Heresy and Orthodoxy.** Fall 2014. Todd Berzon.

Writing intensive, with a focus on readings in heretical texts, orthodox creeds, and scholarly treatments of the religious-ideological construction of heresy and orthodoxy. Fundamentally, heresy is dangerous precisely because of its proximity to orthodoxy. Examples focus on Jewish, Christian, and Islamic traditions; attention given to categories such as dogma vs. freedom, pure vs. impure, society vs. individual. Facets of present-day debates on fundamentalism included.

[**Religion 1015 {15} c. Religion, Violence, and Secularization.**]

**1017 {16} c. Christian Sexual Ethics.** Spring 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 1016 {16} and Gender and Women’s Studies 1017 {17}.)



**Russian 1022 {22} c. “It Happens Rarely, Maybe, but It Does Happen”—Fantasy and Satire in Russia and East Central Europe.** Every other fall. Fall 2014. Kristina Toland.

Explores the fantastic in Russian and East European literature from the 1830s into the twenty-first century. Studies the origins of the Russian and 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, aesthetics, and totalitarianism. Authors include E. T. A. Hoffman, Nikolai Gogol, Mikhail Bulgakov, Karel Capek, Vladimir Sorokin, Victor Pelevin, Ludmilla Petrushevskaya, Stanislaw Lem, and Franz Kafka, among others.

[**Anthropology 1013 {13} b. Beyond Pocahontas: Native American Stereotypes.**]

**Anthropology 1026 b. The Borderlands of United States Empire: Puerto Rican Histories and Identities.** Fall 2014. Melissa Rosario.

Examines the Puerto Rican experience on island and in mainland United States. Begins with a review of the history of US–Puerto Rico relations in political and legal spheres. Explores the theory of borderlands (Gloria Anzaldúa) and considers Puerto Rico’s connections with this history. Next, focuses on language, migration, and settlement in the diaspora and explores the role of these processes in gendering and racializing Puerto Ricans. Creative writings and forms of cultural production on identity by Puerto Ricans examined at various intervals over the course of the semester to supplement historical and ethnographic texts. (Same as Latin American Studies 1026.)

[**Anthropology 1027 {27} b. Understanding Ourselves in the Digital Age.**]

**Sociology 1010 {10} b. Racism.** Fall 2014. 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}.)

**Sociology 1026 b. Landscape, Energy, and Culture.** Fall 2014. Shaun Golding.

Explores current controversies in energy, giving particular attention to debates surrounding the implementation of renewable energy in northern New England. Through both popular and scholarly readings and one mandatory field trip, engages with critical perspectives on consumer-oriented culture and identities and on tensions between urban and rural visions of landscape. Contemplates the social structures governing regional development and planning in which renewable energy strategies are framed. (Same as Environmental Studies 1026.)

# GAY AND LESBIAN STUDIES

Marilyn Reizbaum, *Program Director*  
Glynis Wears-Siegel, *Program Coordinator*

*Contributing Faculty:* Susan Bell, Aviva Briefel, David Collings, Sarah O'Brien Conly\*\*, Guy Mark Foster†, Celeste Goodridge, David Hecht, Aaron Kitch, Matthew W. Klinge, Elizabeth Pritchard, Marilyn Reizbaum, Nancy E. Riley, Jill S. Smith†, Birgit Tautz, Krista E. Van Vleet, William Watterson\*, Tricia Welsch

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 159–172.

**1016 {16} c. Christian Sexual Ethics.** Spring 2015. Elizabeth Pritchard. (Same as Gender and Women's Studies 1017 {17} and Religion 1017 {16}.)

**1049 c. The Literature of Adolescent Sexuality.** Fall 2014. Sarah Braunstein. (Same as English 1049 and Gender and Women's Studies 1012.)

### Introductory, Intermediate, and Advanced Courses

**2001 {201} - ESD. Gay and Lesbian Studies.** Every year. Spring 2015. David Collings.

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.

**2253 {253} b - ESD. Constructions of the Body.** Fall 2014. Susan Bell.

Explores the body as a reflection and construction of language, a source of metaphor, and a political and social “space.” Cases are drawn from art, sports, medicine, performance, work, and body aesthetics. Draws from and compares theories of the body in sociology, women’s studies, and gay, lesbian, and transgender studies. (Same as Gender and Women’s Studies 2253 {253} and Sociology 2253 {253}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}, or permission of the instructor.

**[2266 {266} c - ESD. The City as American History.** (Same as History 2660 {226}.)]

**2402 {241} c. Victorian Race and Empire.** Fall 2014. Aviva Briefel.

Examines Victorian constructions of racial difference and imperial relationships in literary texts ranging from the 1830s to the *fin de siècle*. Focuses on issues of representation and racialized identity; fantasies about nationhood and colonialism; narratives of “adventure” at home and abroad; and images of gender and sexuality. Literary criticism central to discussions. Authors may include C. Brontë, Conrad, Doyle, Du Maurier, Haggard, Kipling, Marsh, and F. A. Steel. (Same as English 2402 {242} and Gender and Women’s Studies 2402 {241}.)

**[2600 {275} b. Gender and Sexuality in Contemporary Eastern Europe.** (Same as Gender and Women’s Studies 2600 {275}.)]

**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.** (Same as Anthropology 3100 {313}, Gender and Women’s Studies 3100 {313}, and Latin American Studies 3711 {311}.)]

# GENDER AND WOMEN'S STUDIES

Frances Gouda, *Program Director*

Anne E. Clifford, *Program Administrator*

*Professors:* Kristen R. Ghodsee†, Jennifer Scanlon

*Visiting Faculty:* Susan Faludi, Frances Gouda

*Contributing Faculty:* Susan Bell, Margaret Boyle, 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, Tracy McMullen, Elizabeth Pritchard, Marilyn Reizbaum, Nancy E. Riley, Jill Smith, Rachel Sturman†, Susan Taffe-Reed, Susan L. Tananbaum†, 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

## COURSES OF INSTRUCTION

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 159–172.

**1012 c. The Literature of Adolescent Sexuality.** Fall 2014. Sarah Braunstein. (Same as English 1049 and Gay and Lesbian Studies 1049.)

**[1014 {30} b. Mothers, Sisters, and Facebook Friends: Is Feminism a Dysfunctional Family?]**

**1017 {17} c. Christian Sexual Ethics.** Spring 2015. Elizabeth Pritchard (Same as Gay and Lesbian Studies 1016 {16} and Religion 1017 {16}.)

**1020 {20} c. In Sickness and in Health: Public Health in Europe and the United States.** Fall 2015. Susan Tananbaum. (Same as History 1010 {20}.)

**1030 c. Women and the Blues.** Fall 2014. Susan M. Taffe Reed. (Same as Africana Studies 1015 and Music 1015.)

**1033 c. Sexuality and Imperialism: Race and Gender in Colonial Asia.** Fall 2014. Frances Gouda.

### Introductory, Intermediate, and Advanced Courses

**1101 {101} b - ESD. Introduction to Gender and Women's Studies.** Fall 2014. Jennifer Scanlon. Spring 2015. Frances Gouda.

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 2015. The Department.

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}.)

**1321 c. Philosophical Issues of Gender and Race.** Fall 2015. Kristi Olson.

A philosophical exploration of contemporary issues of gender and race. Possible topics include the social construction of race and gender, implicit bias, racial profiling, pornography, the gender wage gap, affirmative action, race and incarceration, transgender issues, and reparations for past harms. Readings drawn from philosophy, legal studies, and the social sciences. (Same as Philosophy 1321.)

**1592 {140} c - ESD, VPA. History of Hip-Hop.** Spring 2015. Tracy McMullen.

Traces the history of hip-hop culture (with a focus on rap music) from its beginnings in the Caribbean through its transformation into a global phenomenon. Explores constructions of race, gender, class, and sexuality in hip-hop's production, promotion, and consumption, as well as the ways in which changing media technology and corporate consolidation influenced the music. Artists/bands investigated will include Grandmaster Flash, Public Enemy, MC Lyte, Lil' Kim, Snoop Dog, Eminem, Nicki Minaj, and DJ Spooky. (Same as Africana Studies 1592 {159} and Music 1292 {140}.)

**2112 {212} b. Gender and Crime.** Spring 2015. Janet Lohmann.

Examines how gender intersects with the understanding of crime and the criminal justice system. Gender is a salient issue in examining who commits what types of crimes, who is most often victimized, and how the criminal justice system responds to these victims and offenders. Students explore the social context of crime, as well as how the correctional system and social policy are affected by the issue of gender. (Same as Sociology 2112 {212}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

**2198 c - ESD, IP. Women in South Asia: Images and Experiences.** Spring 2015. Carmen Wickramagamage.

South Asia undoubtedly presents a paradox with regard to women's status, with its veneration of Devi [Goddess] and 'Mother' and endorsement of strong political women, on the one hand, and spectacular, headline-grabbing violence against women on the other. What are the factors that give rise to this seeming paradox? Drawing on a variety of sources, literary and non-literary (from literary and analytical pieces to field reports, documentaries, interviews, personal narratives and oral testimonies), the course introduces students to the forces—cultural and material—that shape women's life-experiences in South Asia. (Same as Asian Studies 2700 and Religion 2277.)

**2200 c - ESD, IP. Gender, Class, and Citizenship in (West) European History.** Spring 2015. Frances Gouda.

Examines the ways in which normative ideas about gender difference and class divisions shaped women's and men's political citizenship in western Europe since the eighteenth-century Enlightenment. By analyzing primary sources as well as current scholarship focusing on England, France, Germany, and the Netherlands, explores issues such as motherhood and parental rights, gendered constructions of the private and public spheres, women's access to education, and the evolution of legal entitlements and political agency. Ample attention devoted to the emergence of the first feminist (suffragist) movement beginning in the 1860s and the evolution of second-wave feminism during the late 1960s. A final topic to be explored is immigration into Western Europe since World War II and the controversies generated by multiculturalism, Islam, and the "politics of the veil." (Same as History 2103.)

**2201 {201} b - ESD. Feminist Theory.** Fall 2014. Frances Gouda.

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.

**2203. Nation, Religion, and Gender in Indian Epics.** Fall 2014. Sree Padma Holt.

Studies the Indian state-sponsored televised serials of two great Indian epics, the *Ramayana* and the *Mahabharata*, and examines their overwhelming popularity among the general public. Explores issues surrounding the concept of Indian nationhood and its interrelation with the Hindu religion and the position of women in Indian society. Readings include scholarly translations and retellings of the *Ramayana* and the *Mahabharata*; viewings of selected episodes of the televised epics are followed by engagement with the public debate through published online media and other sources. One-half credit. (Same as Asian Studies 2650 and Religion 2285.)

**2204 {204} b. Families: A Comparative Perspective.** Fall 2014. Nancy Riley.

Examines families in different societies. Issues addressed include definition and concept of the "family"; different types of family systems; the interaction of family change and other social, economic, and political change; the relationships between families and other social institutions; the role of gender and age in family relationships; and sources and outcomes of stability, conflict, and dissolution within families. (Same as Sociology 2204 {204}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

**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, Meshell 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}.)

**2220 {229} c- ESD. Gender and Sexuality in Classical Antiquity.** Fall 2014. Jennifer Clarke Kosak.

Explores male and female sexuality and gender roles in the ancient Greek and Roman world. What did it mean to be male or female? To what extent were gender roles negotiable? How did gender—and expectations based on gender—shape behavior? How did sexuality influence public life and culture? Using literary, documentary, and artistic evidence, examines the biological, social, religious, legal, and political principles that shaped the construction of male and female identities and considers the extent to which gender served as a fundamental

organizational principle of ancient society. Also considers how Greek and Roman concepts of sexuality and gender have influenced our own contemporary views of male and female roles. All readings are done in translation. *Note:* Offered as part of the curriculum in Gay and Lesbian Studies. (Same as Classics 2229 {229}.)

**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 US 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. Uses David Simon's epic series *The Wire* as a critical source on postindustrial urban life, politics, conflict, and economics, to cover 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.

**2223 {223} b - ESD. Cultural Interpretations of Medicine.** Fall 2014. Susan Bell.

Explores a series of topics in health studies from the perspectives of the humanities and social sciences: medical ethics, the development and use of reproductive technologies, relationships between doctors and patients, disability, public health, and the experience of illness. Encourages reflection about these topics through ethnographies, monographs, novels, plays, poetry, and visual arts. (Same as Sociology 2223 {223}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

**[2224 {224} b - ESD. Introduction to Human Population.** (Same as Environmental Studies 2332 {222} and Sociology 2222 {222}.)]

**2225 {225} c - ESD. Family Affairs: Changing Patterns of Family in Europe.** Spring 2016. Susan Tananbaum.

Seminar. Explores topics and debates in European family history from the early modern period to the present. Considers the impact of social, political, religious, and economic forces on family structures and functions. Students will complete individual research projects. (Same as History 2561 {222}.)

**[2229 c - ESD, IP. Global Pentecostalism: The Roots and Routes of Twentieth-Century Christianity.** (Same as Africana Studies 2235 {242} and Religion 2247 {247}.)]



**2236 c - IP. The Fantastic and Demonic in Japanese Literature.** Spring 2016.

Vijayanthi 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. (Same as Asian Studies 2270 {246}.)

**2246 {263} c - ESD. Only a Game? Sports and Leisure in Europe and America.** Fall 2014. Susan Tananbaum.

Seminar. Uses the lens of sport and leisure to analyze cultural and historical trends in modern Europe and the United States. Students read a range of primary and secondary texts exploring race, class, and gender and complete a significant research paper. Offered concurrently with History 3082. (Same as History 2560 {240}.)

Prerequisite: One course numbered 1000-2969 {010-289} in history or gender and women's studies.

**2248 {248} c - ESD. Family and Community in American History, 1600–1900.** Fall 2014. Sarah McMahan.

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.** (Same as Anthropology 2647 {248}, Asian Studies 2562 {248}, and Cinema Studies 2248 {248}.)]

**2251 {251} c - ESD. Women in American History, 1600–1900.** Spring 2016. Sarah McMahan.

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}.)

**2253 {253} b - ESD. Constructions of the Body.** Fall 2014. Susan Bell.

Explores the body as a reflection and construction of language, a source of metaphor, and a political and social "space." Cases are drawn from art, sports, medicine, performance, work, and body aesthetics. Draws from and compares theories of the body in sociology, women's studies, and gay, lesbian, and transgender studies. (Same as Gay and Lesbian Studies 2253

{253} and Gender and Women's Studies 2253 {253}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}, or permission of the instructor.

**2256 {256} c - ESD. Gender, Body, and Religion.** Fall 2014. 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, Voodoo, 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}.)]

**2262 {262} c. Modern Drama and Performance.** Spring 2015. Marilyn Reizbaum.

Examines dramatic trends of the modern period, beginning with a triumvirate of modern dramatists—Henrik Ibsen, Bertolt Brecht, and Samuel Beckett—and draws lines from their work in drama of ideas, epic theatre, and absurdism to developments in the dramatic arts through the modern period into the twenty-first century. Includes plays by Lorraine Hansberry, Caryl Churchill, and Martin McDonagh. Readings staged. (Same as English 2452 {246} and Theater 2846 {246}.)

**[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 and Fall 2017. 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 social-political 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. *Note:* Fulfills the non-US cinema requirement for Cinema Studies minors. (Same as Asian Studies 2073 {266} and Cinema Studies 2266 {266}.)

**2270 {270} c - ESD. Spirit Come Down: Religion, Race, and Gender in America.** Spring 2015. Judith Casselberry.

Examines the ways religion, race, and gender shape people's lives from the nineteenth century into contemporary times in America, with particular focus on black communities. Explores issues of self-representation, memory, material culture, embodiment, and civic and political engagement through autobiographical, historical, literary, anthropological, cinematic, and musical texts. (Same as Africana Studies 2271 {271} and Religion 2271 {271}.)

**2402 {241} c. Victorian Race and Empire.** Fall 2014. Aviva Briefel.

Examines Victorian constructions of racial difference and imperial relationships in literary texts ranging from the 1830s to the *fin de siècle*. Focuses on issues of representation and racialized identity; fantasies about nationhood and colonialism; narratives of "adventure" at home and abroad; and images of gender and sexuality. Literary criticism central to discussions.

## COURSES OF INSTRUCTION

Authors may include C. Brontë, Conrad, Doyle, Du Maurier, Haggard, Kipling, Marsh, and F. A. Steel. (Same as English 2402 {242} and Gay and Lesbian Studies 2402 {241}.)

**2510 {220} c - IP, VPA. Soviet Worker Bees, Revolution, and Red Love in Russian Film.** Fall 2014. Kristina Toland.

An interdisciplinary examination of Russian culture surveying the development of literary and visual arts from the 1900s through 2010s. Focuses on the themes of the individual vis-à-vis society and on gender politics, using literary and cinematic texts. Topics include “the woman question” in Russia, scientific utopias, eternal revolution, individual freedom versus collectivism, conflict between the intelligentsia and the common man, the “new Soviet woman,” nationalism, the thaw, stagnation of the 1970s, sexual liberation, and the search for post-Soviet identity. Explores the evolution of literary genres (short story and novella) and film techniques in relation to socio-political and cultural developments, paying particular attention to questions of the interrelationship between arts, audience and critic, and the politics of form. Weekly film viewings. *Note:* Fulfills the non-US cinema requirement for Cinema Studies minors. (Same as Film Studies 2221 and Russian 2221 {221}.)

**[2600 {275} b. Gender and Sexuality in Contemporary Eastern Europe.** (Same as Gay and Lesbian Studies 2600 {275}.)]

**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.]**

**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.

**[3100 {313} b - ESD, IP. Global Sexualities/Local Desires.** (Same as Anthropology 3100 {313}, Gay and Lesbian Studies 3100 {313}, and Latin American Studies 3711 {311}.)]

**[3103 c. Gender, Sexuality, and Popular Music.** (Same as Music 3103.)]

**[3211 c. Bringing the Female Maroon to Memory: Female Marronage and Douboutism in the Caribbean.** (Same as Africana Studies 3211, French 3211, and Latin American Studies 3211.)]

**3302 {302} b. The Economics of the Family.** Fall 2015. 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.

**3304 c. Writing Women.** Spring 2015. Susan Faludi.

Women have historically exerted their voice and power through writing, although the writing trades—journalism and publishing—have often been unwelcoming to their presence. Examines reporting and writing by and about women and engages students in the practice of writing about modern women's concerns and lives. This is a hands-on workshop class, a laboratory where students produce their own investigative, magazine-style project related to women or gender, as we study the works of major writers who have confronted women's conditions and explored women's lives.

**3305 b. Real-World Feminism: The Lives of Living Women.** Spring 2015. Susan Faludi.

Students explore how feminist history and precepts operate in the real world by writing deeply reported profiles of women whose lives embody feminism in action. Students study and practice the art of the interview, oral history, and biography, and probe the complex ways that women's liberation plays out on the street, at work, and at home. This is a hands-on writing workshop. Students craft a magazine-length story that brings alive the struggle of a particular woman—anyone from a senator to an artist to someone on a soup line. Mines the secrets to good writing through intensive edits and rewrites and close readings of profiles, biographies, obituaries, etc.

Prerequisite: Gender and Women's Studies 2201 {201} or permission of the instructor.

**[3316 {316} c. Dressing and Undressing in Early Modern Spain.** (Same as Spanish 3246 {346}.)]**3320 {320} c. Victorian Epics.** Spring 2015. Aviva Briefel.

Examines one of the foremost literary forms of the Victorian period: the long novel. By focusing on a few central texts, investigates the ways in which narrative length shapes stories about wide-ranging issues related to nationalism, science, technology, and empire, as well as allegedly "local" issues regarding domesticity, familial relations, personal adornment, and romance. Authors may include Charles Dickens, George Eliot, William Thackeray, and Anthony Trollope. (Same as English 3024 {320}.)

Prerequisite: One course numbered 2000–2969 {200–289} in English.

**[3326 {326} c. A Body "of One's Own": Latina and Caribbean Women Writers.**

(Same as Latin American Studies 3226 {326} and Spanish 3226 {326}.)]

**[3350 {355} c. Modernism and the Nude.** (Same as Art History 3550 {355}.)]

**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

Birgit Tautz, *Department Chair*

Kate Flaherty, *Department Coordinator*

*Associate Professors:* Jill S. Smith†, Birgit Tautz

*Assistant Professor:* Jens Klenner

*Visiting Faculty:* Kathryn Sederberg

*Teaching Fellow:* Sarah Kissel

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}. A course taught by German faculty in other programs may be substituted for the one from 1151–1156 {151–156} upon prior approval. 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 159–172.

**1026 c. Memories, Secrets, and Lies: Autobiographical Texts from Rilke to Spiegelman.**

Fall 2014. Kathryn Sederberg.

**[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.** (Same as Cinema Studies 1151 {151}.)]

[1152 {152} c - IP, VPA. **Berlin: Sin City, Divided City, City of the Future.** (Same as Cinema Studies 1152 {152}.)]

**1155 c - IP. Into the Wild Into the Wild: Untamed Nature in German-Speaking Culture.** Spring 2015. Jens Klenner.

An examination of the mix of conflicting ideas that shape the many conceptions of “wilderness.” eExplores the ideas of wilderness as a space without or preceding culture and civilization, the wilderness as a mental state, and as an aesthetic experience. It also considers the place of wilderness in the ‘urban jungle’ of cities. Among others, this course will discuss the discovery of the Alps and interrogate the differing German, Austrian, and Swiss perspectives of that mountainous region, but also show how these European imaginations define American conceptions of mountains. The course puts German, Austrian, and Swiss theories and images of wilderness into dialogue with Anglo-American conceptions by comparing literary works, film, artworks, and philosophical texts. No knowledge of German is required. (Same as Environmental Studies 1155.)

## Language and Culture Courses

**1101 {101} c. Elementary German I.** Every fall. Fall 2014. Jens Klenner.

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.

Acquisition of four skills: speaking, understanding, reading, and writing. Three hours per week, plus one hour of conversation and practice with teaching assistant. Integrated Language Media Center work.

**1102 {102} c. Elementary German II.** Every spring. Spring 2015. Birgit Tautz.

Continuation of German 1101 {101}. Equivalent of German 1101 {101} is required.

**2203 {203} c. Intermediate German I: Germany within Europe.** Every fall. Fall 2014. Birgit Tautz.

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 2015. Kathryn Sederberg.

Continuation of German 2203 {203}. Equivalent of German 2203 {203} is required.

**2205 {205} c - IP. Advanced German Texts and Contexts.** Every year. Fall 2014. Kathryn Sederberg.

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

## COURSES OF INSTRUCTION

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.

[2262 c - IP. Not Lost in Translation: German across the Disciplines.]

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 2016. The Department.

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.

**3310 c – IP. German Culture Studies: Made in Germany.** Spring 2015. Jens Klenner.

An examination of the most influential “products” made in Germany. From technological developments to musical innovations, many things made in Germany have had an enduring, global impact. Explores the context in which these products were made or ideas were developed, the process of their worldwide dissemination, as well as the ways in which they shape the national and cultural imagination. Designed to be an introduction to methods of cultural analysis through an examination of diverse materials. Expands students' knowledge of German culture, history, and language while also developing skills, including close reading, visual analysis, and contextualization. Weekly individual sessions with the teaching fellow from the Johannes-Gutenberg-Universität-Mainz. All materials and coursework in German.

Prerequisite: German 2204 {204} or placement.

[3313 {313} c - IP. German Classicism.]

[3316 {316} c - IP. German Modernism—Urbanity, Interiority, Sexuality. ]

**3317 {317} c - IP. German Literature and Culture since 1945.** Fall 2014. Jens Klenner.

An exploration of how successive generations have expressed their relationship to the catastrophe of the Nazi past. Examines representative texts of East and West German writers/filmmakers in Cold War and post-unification contexts. A discussion of German identity from several critical perspectives, including *Vergangenheitsbewältigung*, the political and cultural influence of the United States and the Soviet Union, gender in the two Germanys, and the politics of migration and citizenship. Authors may include Grass, Böll, Borchert, Brüssig, Özdamar, Schlink, and Wolf. Films by Fassbinder, von Trotta, Schlöndorff, Akin, and Levy. All materials and coursework in German.

Prerequisite: German 2204 {204} or placement.

[3362 c - IP. Not Lost in Translation: German Across the Disciplines.]

**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.

**3390 c - IP. The Great War in German Culture and Society.** Spring 2015. Kathryn Sederberg.

A study of the First World War and the Weimar period in German history and culture with a focus on artistic representations of this tumultuous era. Traces key movements in literature as well as visual art and film, with attention to the way artists responded to social, political, and cultural shifts in early twentieth-century Germany. Readings thematize issues of art and politics, nationalism and militarism, gender and sexuality, and practices of memorialization. Authors may include Remarque, Jünger, Benn, Lasker-Schüler, Trakl, Toller, Brecht, Döblin, Luxemburg, and Keun. All materials and coursework in German.

Prerequisite: German 2204 {204} or placement.

**[3392 {392} c - IP. Das deutsche Lustspiel.]**

**[3394 {394} c. Contemporary Austrian Literature, Drama, and Film.]**

**3395 {395} c - IP. Myths, Modernity, Media.** Fall 2014. Birgit Tautz.

Explores the important role that myths have played in German cultural history. While founding myths of Germanic culture (e.g., Nibelungen) are considered, focuses especially on myth in relation to fairy tales, legends (including urban legends of the twentieth century), and borderline genres and motifs (e.g., vampires, witches, automatons), as well as on questions of mythmaking. Examines why modern culture of the twentieth and twenty-first centuries, which seemingly neglects or overcomes myths, heavily engages in mythicization of ideas (e.g., gender roles, the unnatural) and popularizes myths through modern media (film, television, the Internet), locations (e.g., cities) and transnational exchange (Disney; the myth of “the Orient”). Aside from short analytical or interpretive papers aimed at developing critical language skills, students may pursue a creative project (performance of a mythical character, design of a scholarly web page, writing of a modern fairy tale). All materials and coursework in German. *Note:* Fulfills the film theory and non-US cinema requirements for Cinema Studies minors. (Same as Film Studies 3395 {395}.)

Prerequisite: German 2204 {204} or placement.

**[3397 {397} c - IP. Global Germany]**

**4000–4003 {401–404} c. Advanced Independent Study in German.** The Department.

**4029 {405} c. Advanced Collaborative Study in German.** The Department.

**4050–4051 c. Honors Project in German.** The Department.



## GOVERNMENT AND LEGAL STUDIES

Michael M. Franz, *Department Chair*

Lynne P. Atkinson, *Department Coordinator*

*Professors:* Paul N. Franco, Janet M. Martin, Richard E. Morgan, Christian P. Potholm\*\*,  
Andrew C. Rudalevige, Allen L. Springer\*, Jean M. Yarbrough

*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

*Lecturer:* George S. Isaacson

*Visiting Faculty:* Sarah Y. T. Mak, Alana Tiemessen

*Fellow:* Cory C. Gooding

### 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}, 2001, 2005 {202}, 2010 {204}, 2015 {215}, 2020 {210}, 2021 {211}, 2030 {206}, 2035 {216}, 2051 (same as Africana Studies 2051), 2052 (same as Africana Studies 2052), 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}, 1400 {120}, 2400 {224}, 2405 {288}, 2408 {221}, 2410 {230}, 2440 {227} (same as Asian Studies 2060 {227}), 2441, 2445 {286} (same as Asian Studies 2860 {280}), 2450 {232} (same as Asian Studies 2320 {282}), 2480 {239}, 2481, 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}), 2531, 2540 {272} (same as Asian Studies 2061 {265}), 2545 {234} (same as Asian Studies 2821 {234}), 2570 {220}, 2571, 2572 {237}, 2573 {285}, 2574 {275}, 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}, 3560 {336}, 3570 (same as Africana Studies 3570), 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}, 2295, 2800 {243}, 3200 {341}, 3210 {342}, 3220 {346}.

*International relations:* Government 1025 {18}, 1026 {20}, 1030 {10}, 1031, 1037 {11}, 1600 {160}, 2500 {225}, 2520 {226}, 2525 {273}, 2530 {222} (same as Africana Studies 2530 {222}), 2531, 2540 {272} (same as Asian Studies 2061 {265}), 2545 {234} (same as Asian Studies 2821 {234}), 2570 {220}, 2571, 2572 {237}, 2573 {285}, 2574 {275}, 2578 {236}, 2580 {233}, 2600 {260}, 2615 {263} (same as Environmental Studies 2308 {263}), 2620, 2670 {270}, 2680 {261}, 2683 {279}, 2687 {287}, 2689 {269} (same as Environmental Studies 2369 {269}), 2690, 2800 {243}, 3500 {321}, 3510 {324}, 3520 {325}, 3530 {327}, 3540 {330}, 3560 {336}, 3570 (same as Africana Studies 3570), 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 2930 {284}, 2940 {219} (same as Education 2250 {250}), 3900 {393} (same as Asian Studies 3550 {344} and Religion 3344 {344}), 3901 (same as History 3271 and Latin American Studies 3171), 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.

Registration is limited to sixteen first-year students in each first-year seminar. For descriptions, see First-Year Seminars, pages 159–172.

**1001 {25} b. Representation, Participation, and Power in American Politics.** Fall 2014. Janet M. Martin.

**1002 {27} b. Political Leadership.** Fall 2014. Andrew C. Rudalevige.

**1011 {26} b. Fundamental Questions: Exercises in Political Theory.** Fall 2014. Jean M. Yarbrough.

**1012 {28} b. Human Being and Citizen.** Fall 2014. Paul N. Franco.

## COURSES OF INSTRUCTION

**1025 {18} b. NGOs in Politics.** Fall 2014. Laura A. Henry.

**1026 {20} b. Global Media and Politics.** Fall 2014. Henry C. W. Laurence. (Same as Asian Studies 1046 {20}.)

[1030 {10} b. **The Pursuit of Peace.**]

**1031 b. Weapons of the Weak.** Fall 2014. Barbara Elias.

[1037 {11} b. **The Korean War.**]

### 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.** Fall 2014. Jeffrey S. Selinger.

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.** Fall 2014. Sarah Y. T. Mak.

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.** Spring 2015. Alana Tiemessen.

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.**]

**2001 b. Watergate and American Politics.** Spring 2015. Andrew C. Rudalevige.

The “third-rate burglary” at the Watergate complex in 1972 ultimately revealed broad abuses of presidential power, led to the resignation of the president, and lent a suffix to a wide range of future scandals. Examines both Watergate itself and what it wrought in American politics. Topics include the relationship between the executive and legislative branches in areas ranging from budgetary policy to the war power; the role of the press; governmental ethics, investigations, and impeachment; and Watergate’s place in popular and political culture.

**2005 {202} b. The American Presidency.** Fall 2014. Andrew C. Rudalevige. Spring 2015. 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 2014. 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.]**

**2020 {210} b. Constitutional Law I.** Fall 2014. Richard E. Morgan.

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.** Spring 2015. Richard E. Morgan.

Examines questions arising under the First and Fourteenth Amendments.

Prerequisite: Government 2020 {210}.

**2030 {206} b. Political Science and Policy History in the United States.** Spring 2015. Jeffrey S. Selinger.

How have the institutions of government crafted by the American founders shaped the basic contours of the policy process? How has the policy process changed as the structure of the American political system itself has changed over time? Addresses these questions, introducing students to concepts and tools that political scientists use as they try to untangle complex patterns of policy development. Assigned readings trace the historical lineage of policies affecting health care, retirement, immigration, and other critical areas of public concern. Through analysis of these substantive policy matters, examines how and to what extent policy choices made in the past have shaped the horizon of options available to policymakers today.

**2035 {216} b. Maine Politics.** Fall 2014. 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.

**2051 b - ESD. Race, Citizenship, and Political Behavior.** Fall 2014. Cory Charles Gooding.

Analyzes the ability of race and ethnicity to restrict access to citizenship rights and produce dynamic forms of political behavior that range from micro- to macro-politics. The course considers the traditional forms of political behavior (e.g., voting) as well as those that function outside of the traditional institutions of governmental influence. Specific forms of political behavior discussed include “foot-dragging” (failure to act with the necessary promptness), sports, music, protests, and voting. (Same as Africana Studies 2051.)

**2052 b - ESD. Race, Ethnicity, and Politics.** Spring 2015. Cory Charles Gooding.

Examines the impact of race and ethnicity on American politics. Students study differences in political behavior (e.g., levels of activism and group consciousness) and political outcomes (e.g., in education and criminal justice) across racial and ethnic groups, including Native Americans, Black Americans, Latinos, Asian Americans, and White Americans. The focus on group identities is a major feature. How do racial and ethnic group identities form, and how are they sustained? Discusses this in both the historical and contemporary sense. These questions inform discussions about the impact of group identities on political outcomes. Is a strong racial or ethnic identification a key driver of political behavior? Why and to what effect? (Same as Africana Studies 2052.)

**2060 {205} b. Campaigns and Elections.** Fall 2014. Michael M. Franz.

Addresses current theories and controversies concerning political campaigns and elections in the United States. Uses concepts from the political science literature on elections to explore general trends in electoral choice at the legislative and presidential level. Students expected to follow journalistic accounts of the fall campaigns closely. A second set of readings introduces political science literature on campaigns and elections. These readings touch upon a wide range of themes, including voting behavior (e.g., economic voting and issue voting), campaign finance, media strategy, the role of incumbency, presidential primaries, the Electoral College, and trends in partisan realignment.

**[2070 {208} b. Mass Media and American Politics.]**

**2080 {255} b - MCSR. Quantitative Analysis in Political Science.** Spring 2015.

Michael M. Franz.

Examines the use of quantitative methods to study political phenomena. Discusses the nature of empirical thinking and how principles used for years by natural scientists, such as causation and control, have been adopted by social scientists. Introduces what these methods are and how they might be useful in political research and applies these methods, with particular emphasis on the use of survey data. Using quantitative methods, employs statistical computing software as a research tool, with a focus on effective presentation of data and results. May be useful to those considering a senior honors project.

**2200 {240} b. Classical Political Philosophy.** Fall 2014. 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 2015. Paul N. Franco.

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.**]

**2230 {250} b. American Political Thought.** Spring 2015. 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.

**2270 {246} b. Religion and Politics.** Fall 2014. Paul N. Franco.

Examines the relationship between religion and politics—the so-called theological-political question—primarily in modern Europe and America. Focuses first on the tension between and eventual separation of church and state in the early modern period; then considers the implications and complications of this historic separation, looking at recent Supreme Court cases, as well as contemporary discussion of the relationship between religion and politics. Comparisons with the treatment of this issue in the Islamic world are made. Authors include Machiavelli, Luther, Calvin, Spinoza, Locke, Jefferson, Madison, Tocqueville, as well as a variety of contemporary and Islamic writers.

**2280 {249} b. Eros and Politics.** Spring 2015. Jean M. Yarbrough.

What and whom do we love? Do we seek “another self” or someone to complement our natures? Is there something other than human beings that we love? The Good, God, or some other principle? How do the answers to these questions affect our views of politics and justice? Readings include Plato’s *Symposium*, the Bible; Shakespeare; Rousseau’s *Emile*; Tocqueville; and contemporary thinkers.

[2400 {224} b. **West European Politics.**]

**2405 b. British Politics and Society.** Spring 2015. 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.

**2410 {230} b. Post-Communist Russian Politics and Society.** Fall 2014. Laura A. Henry.

Explores the most dramatic political event of the twentieth century: the collapse of Soviet communism and Russia’s subsequent political development. Begins by examining the Soviet system and the political and social upheaval of the late Soviet period. Proceeds to investigate the challenges of contemporary Russian politics, including the semi-authoritarian regime, the challenges of sustainable economic growth and modernization, the demographic crisis, the loss of superpower status, and the search for a role in international politics. Comparisons made with other countries in the post-Communist region.

**2440 {227} b - IP. Contemporary Chinese Politics.** Spring 2015. Sarah Y. T. Mak.

Examines the history and politics of China in the context of a prolonged revolution. Begins by examining the end of imperial rule, the development of Modern China, socialist transformations, and the establishment of the PRC. 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. The adaptation by the Communist Party to these changes and the prospects of democratization are also examined. Topics include political participation and civil society, urban and rural China, gender in China, and the effects of post-Mao economic reform. (Same as Asian Studies 2060 {227}.)

**2441 b. Asian Cities and Globalization.** Spring 2015. Sarah Y. T. Mak.

Introduces the concept and phenomenon of globalization and its relationship to the global city. Examines how historical, social, cultural, and political change takes shape in Asian cities, along with their importance as spaces of global information and capital and technological linkages. Studies how cities are created and imagined in public and official discourse. Readings draw from political science, but also cover urban studies, global studies, anthropology, sociology, geography, and cultural studies. Topics include migration and immigration, development, gentrification, the environment, civil society and popular protests, and labor. (Same as Asian Studies 2870.)

**2445 {286} b - IP. Asian Communism: The Politics of China, Vietnam, North Korea, and Mongolia.** Spring 2016. Christopher Heurlin.

Examines 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 2014 and Fall 2015. 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}.)

**2481 b. Nationalism.** Fall 2014. Sarah Y. T. Mak.

The terms nation and nationalism are used in different disciplines within the social sciences and humanities. They are also terms often used in the news and popular media. Examines what these terms mean and how they might relate to us. What is a nation? How do nations come about? How does one identify with that nation? Introduces theoretical canonical texts from the field of nationalism studies and other interdisciplinary scholarship on the topic. With this theoretical background, students should be able to think critically about the political motivations and work behind nationalist movements and nation-building projects.

**2484 {235} b - IP. Comparative Environmental Politics.** Spring 2015. Laura A. Henry.

Examines environmental politics from a comparative perspective, drawing on case material

from the United States, Europe, Latin America, Africa, and Asia. Asks why, despite the fact that many contemporary environmental problems are shared globally, states develop different environmental policies. Readings cover issues ranging from forest conservation to climate policy and consider explanatory factors such as type of political regime, level of economic development, activism by citizens, and culture and values. (Same as Environmental Studies 2306 {236}.)

**[2486 {231} b - IP. The Politics of Dictatorship: Authoritarian Resilience and Democratization.]**

**[2500 {225} b - IP. The Politics of the European Union.]**

**2530 {222} b - IP. Politics and Societies in Africa.** Fall 2014. Ericka A. Albaugh.

Surveys societies and politics in sub-Saharan Africa, seeking to understand the sources of current conditions and the prospects for political stability and economic growth. Looks briefly at pre-colonial society and colonial influence on state-construction in Africa and concentrates on three broad phases in Africa's contemporary political development: independence and consolidation of authoritarian rule; economic decline and challenges to authoritarianism; democratization and civil conflict. Presumes no prior knowledge of the region. (Same as Africana Studies 2530 {222}.)

**2531 b. The Politics of International Justice.** Spring 2015. Alana Tiemessen.

Addresses issues of accountability for atrocities and human rights violations and as well as the political dynamics of international justice. By bridging the field of international relations with international law and comparative politics, students gain an understanding of the globalization of the rule of law and post-conflict societal transitions from violence to peace. Topics include an introduction to concepts of justice and reconciliation, international tribunals and the International Criminal Court, truth commissions, and local "traditional" justice. Case studies are global in scope, but with a sustained focus on Africa.

**2545 {234} b - IP. Politics in East Asia.** Spring 2016. Henry C. W. Laurence.

A broad survey of political systems across East Asia, including China, Japan, and North and South Korea. Central topics include twentieth-century political development, democratization, human rights, and the political roles of women. Also examines current international relations in the region. (Same as Asian Studies 2821 {234}.)

**2570 {220} b. The Politics of Development: Poverty, Prosperity, and Political Change.** Fall 2014. 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.

**2571 b. Failed States.** Fall 2014. Alana Tiemessen.

Addresses theories and empirical realities of state weakness and failure. The first set of topics covers the defining characteristics of statehood and state failure in the international community. The second set of topics addresses patterns of internal disorder within failed states, specifically civil war and violent non-state actors. The third topic addresses the perceived and potential transnational threats that stem from state collapse, specifically



terrorism. The final topic covers the responses and responsibility of the international community to both confront threats and strengthen state-society relations in weak and failed states.

**[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.** Spring 2015.

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 choose a country in which to evaluate the historical and present state of languages and language(s) of state. Topics touched by language include democracy, state-building, colonization, violence, education, human rights, and globalization.

**[2574 {275} b. Rioters, Rebels, and Revolutionaries: Contentious Politics.]**

**[2580 {233} b. Advanced Comparative Politics: Government, War, and Society.]**

**2600 {260} b. International Law.** Spring 2015. Allen L. Springer.

The modern state system, the role of law in its operation, the principles and practices that have developed, and the problems involved in their application.

**[2615 {263} b. International Environmental Policy.** (Same as Environmental Studies 2308 {263}.)]

**2620 b. Global Governance of Crises: Inequality and Insecurity.** Fall 2014. Alana Tiemessen.

Addresses the causes of various global crises, how the international community responds to them, and their impact on international politics and human life. Types of crises include those broadly related to international inequality and insecurity, specifically case study topics of poverty, famine, threats from failed states, human security, and “culture clashes.” Beyond an introduction to global governance issues and concepts, analysis of each crisis entails a review of scholarly analysis on the causes and policy debates of crises and critical assessment of various organizations and actors that are involved.

**2670 {270} b. United States Foreign Policy.** Fall 2014. 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 policy-making process, and provides case studies of contemporary foreign policy issues.

**2680 {261} b - IP. International Security.** Spring 2015. 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 policies 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.

[2689 {269} b - IP. **Environmental Security.** (Same as **Environmental Studies 2369 {269}.**)]

**2690 b – IP. Islam and Politics.** Spring 2015. Barbara Elias.

Analyzing the intersection of politics and multiple expressions of Islam in both state governments and transnational movements, studies Islam as a social, ethical, and political force in the modern era. Offers a basic introduction to Muslim history and the Islamic religion, explores various Islamic social and political movements, analyzes contending understandings of the interaction between politics and Islam, as well as investigating the tensions between the Islamic and western political traditions, including democracy and Islam. Relying on texts from influential revolutionaries such as Qutb and Khomeini as well as perspectives on political Islam from academic scholars, explores the heart of politics, society, and religion in the modern Muslim world.

**2940 {219} c. Education and Law.** Fall 2014. George S. Isaacson.

A study of the impact of the American legal system on the functioning of schools in the United States through an examination of Supreme Court decisions and federal legislation. Analyzes the public policy considerations that underlie court decisions in the field of education and considers how those judicial interests may differ from the concerns of school boards, administrators, and teachers. Issues discussed include constitutional and statutory developments affecting schools in such areas as free speech, sex discrimination, religious objections to compulsory education, race relations, teachers' rights, school financing, and education of the handicapped. (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.**]

**3010 {304} b. Advanced Seminar in American Politics: Presidential-Congressional Relations.** Spring 2015. 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.** Spring 2015. Michael M. Franz.

Considers the historical and contemporary relationship between money and government. In what ways have moneyed interests always had distinctive influences on American politics? Does this threaten the vibrancy of our representative democracy? Are recent controversies over campaign finance reform and lobbying reform signs that American government is in trouble? Reading, writing, and discussion intensive, considers the large academic literature on this subject, as well as the reflections of journalists and political practitioners, with the overall goal of understanding the money/politics relationship in ways that facilitate the evaluation of American democracy.

**3025 b. The Politics of Policy Implementation.** Spring 2015. 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. Uses case studies (e.g., entitlement reform, education policy, intelligence reorganization, health care) to evaluate competing theoretical frameworks.

Prerequisite: Government 1100 {150} or any Level B course from the American Politics Concentration (Government 2000–2099).

[3030 {309} b. American Political Development.]

[3200 {341} b. Advanced Seminar in Political Theory: Tocqueville.]

**3210 {342} b. Advanced Seminar in Political Theory: Jean-Jacques Rousseau.** Spring 2015. Paul N. Franco.

An examination of the multifaceted and revolutionary thought of Jean-Jacques Rousseau, including his critique of the Enlightenment, his rejection of classical liberalism, his defense of democracy, his relationship to the French Revolution, his contribution to Romanticism, and his views on freedom, equality, education, religion, art, economics, the family, love, and the self.

Prerequisite: One course numbered 1010-1016 or 2200-2299 or 3200-3299; or permission of the instructor.

[3220 {346} b. Nietzsche.]

**3400 {332} b. Advanced Seminar in Japanese Politics.** Spring 2016. 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.]****3510 {324} b. Post-Communist Pathways.** Spring 2015. Laura A. Henry.

Explores growing political, economic, and cultural diversity within the post-communist region after the enforced homogeneity of the Communist era. Considers the essential features of Communism and asks why these systems collapsed, before examining more recent developments. What are the factors promoting growing variation in the region? Why have some post-communist states joined the European Union, while others appear mired in authoritarianism? Do the institutional and cultural legacies of Communism influence contemporary politics? More than twenty years after the collapse of Communist regimes in East Central Europe and the Soviet Union, is “post-communism” still a useful concept for social scientists? Examines contemporary scholarship on the sources of change and continuity in the region and offers students the opportunity to undertake individual research projects.

**[3520 {325} b. State-Building in Comparative Perspective.]****3560 {336} b. Advanced Seminar in Comparative Political Economy.** Spring 2015. Henry C. W. Laurence.

Studies the relationship between governments and markets in policy areas including health care, education, social welfare and income inequality, media regulation, financial markets, economic growth and employment, etc. Focuses on advanced industrial democracies including the United Kingdom, United States, and Japan.

Prerequisite: Two classes in comparative politics from: Government 1020-1029, 1400, 2400-2599, 3400-3599.

**3570 b. Advanced Seminar in African Politics.** Spring 2015. Ericka A. Albaugh.

The continent of Africa boasts some of the most rapidly growing economies in the world, but the proportion of people living in poverty remains higher than in any other region. Nearly all African states experimented with democratic reform in the last two decades, but many leaders have become adept at using political institutions to entrench their power. Most large-scale civil wars have ended, but violence remains. Explores the economic, political, and security challenges of this continent of contrasts. Topics include poverty and economic growth, the “resource curse,” democratic institutions, civil society, ethnic relations, state failure, foreign assistance, and intervention. (Same as Africana Studies 3570.)

Prerequisite: Government 2530 {222} (same as Africana Studies 2530 {222}) or History 2364 {264} (same as Africana Studies 2364 {264}); or permission of the instructor.

**3600 {361} b. Advanced Seminar in International Relations: Conflict Simulation and Conflict Resolution.** Fall 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.** Spring 2015. Allen L. Springer.

Examines the complex relationship between law and policy in international relations by focusing on two important and rapidly developing areas of international concern: environmental protection and humanitarian rights. Fulfills the environmental studies senior seminar requirement. (Same as Environmental Studies 3963 {363}.)

**3901 b. Latin American–United States Relations.** Fall 2014. Joseph S. Tulchin.

Seminar. Enhances understanding of Latin America by examining the foreign relations of the nations in the hemisphere with a special focus on relations with the United States. Begins with independence and concludes with the contemporary struggle by the nations in the region for autonomy in the international system. Class discussions explore weekly readings. Participants should have some background in the history of the United States and Latin America. Students are expected to write an original research paper. (Same as History 3271 and Latin American Studies 3171.)

**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

Dallas G. Denery II, *Department Chair*

Rebecca Banks, *Department Coordinator*

*Professors:* Patrick J. Rael, Olufemi Vaughan (Africana Studies), Allen Wells

*Associate Professors:* Connie Y. Chiang (Environmental Studies), Dallas G. Denery II, David M. Gordon†, K. Page Herrlinger‡, Matthew W. Kingle (Environmental Studies), Sarah F. McMahon, Brian Purnell\* (Africana Studies), Rachel L. Sturman\* (Asian Studies), Susan L. Tananbaum

*Assistant Professors:* David K. Hecht, Meghan Roberts‡, Ya (Leah) Zuo (Asian Studies)

*Visiting Faculty:* Thomas Fleischman, Tristan R. Grunow (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 multi-field 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,

## COURSES OF INSTRUCTION

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/US.
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/US requirement for the history major.

For a full description of first-year seminars, see pages 159–172.

**1004 c. A Global History of Food.** Fall 2014. Thomas Fleischman. (Same as Environmental Studies 1004.)

**1006 {10} c. Monsters, Marvels, and Messiahs.** Fall 2014. Dallas Denery.

**1010 {20} c. In Sickness and in Health: Public Health in Europe and the United States.** Fall 2015. Susan Tananbaum. (Same as Gender and Women's Studies 1020 {20}.)

**1014 {12} c. Utopia: Intentional Communities in America, 1630–1997.** Fall 2014. Sarah McMahon.

**[1018 {11} c. Memoirs and Memory in American History.]**

**[1020 {15} c. Frontier Crossings: The Western Experience in American History.** (Same as Environmental Studies 1015 {15}.)]

**1022 {14} c. Science and Society.** Fall 2014. David Hecht.

**1033 c. Japan in the World.** Fall 2014. Tristan Grunow. (Same as Asian Studies 1013.)

**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.** (Same as Africana Studies 1040 {13}.)]

**1044 c. The Historical and Contemporary Maya.** Spring 2015. Allen Wells. (Same as Latin American Studies 1044.)

## 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.

**1111 c - ESD, IP. History of Ancient Greece: From Homer to Alexander the Great.** Fall 2015. Robert B. Sobak.

Surveys the history of Greek-speaking peoples from the Bronze Age to the death of Alexander the Great. 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. Special attention is given to the distinctively Greek outlook in regard to gender, the relationship between human and divine, freedom, and the divisions between Greeks and barbarians (non-Greeks). *Note:* This course fulfills the pre-modern requirement for history majors. (Same as Classics 1111.)

**1112 c - ESD, IP. History of Ancient Rome: From Romulus to Justinian.** Fall 2014. Robert B. Sobak.

Surveys the history of Rome from its beginnings to the fourth century A.D. 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 1112.)

**1140 {110} c - ESD. Medieval, Renaissance, and Reformation Europe.** Fall 2015. 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.** Fall 2015. Susan Tananbaum.

Explores Jewish life through the lenses of history, religion, and ethnicity and examines the processes by which governments and sections of the Jewish community attempted to incorporate Jews and Judaism into European society. Surveys social and economic transformations of Jews, cultural challenges of modernity, varieties of modern Jewish religious expression, political ideologies, the Holocaust, establishment of Israel, and American Jewry through primary and secondary sources, lectures, films, and class discussions. (Same as Religion 1125 {125}.)

**1240 {140} c. War and Society.** Fall 2016. 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 history majors.*

**1420 c - IP. China's Path to Modernity: 1800 to Present.** Spring 2015. 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 1175.)

**1460 {160} c - ESD, IP. Apartheid's Voices: South African History, 1948 to 1994.** Fall 2015. David M. 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/US requirement for history majors.

**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.** Spring 2015. Michael Nerdahl.

Examines in depth the approaches to leadership within the governmental system that enabled a small, Italian city-state to take eventual control of the Mediterranean world and how this state was affected by its unprecedented military, economic, and territorial growth. Investigates and re-imagines the political maneuverings of the most famous pre-Imperial Romans, such as Scipio Africanus, the Gracchi, and Cicero, and how political institutions such as the Roman Senate and assemblies reacted to and dealt with military, economic, and revolutionary crises. Looks at the relationship of the Roman state to class warfare, the nature of electoral politics, and the power of precedent and tradition. While examining whether the ultimate fall precipitated by Caesar's ambition and vision was inevitable, also reveals what lessons, if any, modern politicians can learn about statesmanship from the transformation of the hyper-competitive atmosphere of the Republic into the monarchical principate of Augustus. All sources, such as Livy's history of Rome, Plutarch's *Lives*, letters and speeches of Cicero, and Caesar's *Civil War*, are in English, and no prior knowledge of Roman antiquity is required. *Note:* This course fulfills the pre-modern requirement for history majors. (Same as Classics 2214 {214}.)

**2015 c - IP. Modern Germany: 1848-2010.** Fall 2014. Thomas Fleischman.

German history has always been confounded by a remarkable lack of continuity. Between 1871 and 2010, no fewer than six different states have claimed to rule Germany, each expounding a different political ideology. With little political continuity, Germany's "national"

history became located in its cultural character. This course explores this peculiar, paradoxical, and often dark history. How do we narrate a “national” history where no single nation has existed? Can Germany be understood as a vanguard of the Enlightenment or the progenitor of unprecedented barbarism? Topics to discuss include German colonialism, World Wars, histories of science, the Berlin Wall, lefty terrorists, and the EU.

**2017 c - IP. Postwar Europe: 1945-2014.** Spring 2015. Thomas Fleischman.

Until the fall of the Berlin Wall in 1989, historians had treated the history of postwar Europe as permanently divided and dominated by an inevitable ideological clash. Collapse, however, required a dramatic re-examination, as the once immutable Cold War now appeared more as a post-war parenthesis. Examines Europe since “zero hour” 1945 as a singular space—one dominated by superpowers, riven by cultural and economic competition, yet also struggling with its past and re-imagining its future. Topics to discuss: origins of the Cold War, uprisings and revolutions, détente, youth in revolt, energy crises, the “Greens,” the Warsaw Pact and European Union, 1989, Euro Crisis, and Ukraine.

**2040 {204} c. Science, Magic, and Religion.** Spring 2015. Dallas Denery.

Traces the origins of the scientific revolution through the interplay between late-antique and medieval religion, magic, and natural philosophy. Particular attention is paid to the conflict between paganism and Christianity, the meaning and function of religious miracles, the rise and persecution of witchcraft, and Renaissance hermeticism. *Note:* This course fulfills the pre-modern requirement for history majors. (Same as Religion 2204{204}.)

Prerequisite: History 1140 {110} or permission of the instructor.

**2042 {207} c. The Good Life: From Plato to the Enlightenment.** Spring 2016. 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 include how humans differ from other animals, the tensions between pagan and Christian traditions, and the secularization of the good life. Primary sources 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.

**2048 {207} c - ESD. Medieval Europe: 1075 to 1415.** Fall 2014. Dallas Denery.

Examines the religious, political, economic, and cultural history of Europe from the Investiture Controversy to the Council of Constance. *Note:* This course fulfills the pre-modern requirement for history majors.

**2061 {271} c - ESD. Culture Wars in the Age of Enlightenment.** Fall 2015. Meghan Roberts.

The Enlightenment is sometimes called the “Age of Reason,” an ill-fitting title that implies Enlightenment thinkers conducted themselves in a purely dispassionate fashion. This was not the case. Examines a series of arguments within and without the so-called “Republic of Letters,” including who had the right to engage in intellectual work, the rise of atheistic thinking, the development of new scientific methods, government, gender, and race. *Note:* This course fulfills the pre-modern requirement for history majors.

**2062 {251} c - IP. Europe’s Age of Expansion, 1492-1789.** Spring 2016. Meghan Roberts.

The practice of European politics changed dramatically between the Renaissance and the French Revolution. National governments became more centralized and more powerful. At

the same time, Europe transformed itself from a relatively weak region to a dominant world power. Specific topics include political thought, cross-cultural encounters, fiscal crisis and reform, policing, commerce, war, and rebellion.

**2083 {221} c - IP. History of England, 1485-1688.** Spring 2016. Susan Tananbaum.

A survey of the political, cultural, religious, social, and economic history of early modern England from the reign of Henry VII, the first Tudor ruler, to the outbreak of the Glorious Revolution. Topics include the Tudor and Stuart Monarchs, the Elizabethan Settlement, the English Civil War, Oliver Cromwell, and the Restoration. *Note:* This course fulfills the pre-modern requirement for history majors.

**2085 {223} c - IP. Modern Britain, 1837 to the 1990s.** Spring 2015. Susan L. Tananbaum.

A social history of modern Britain from the rise of urban industrial society in the early nineteenth century to the present. Topics include the impact of the industrial revolution, acculturation of the working classes, the impact of liberalism, the reform movement, and Victorian society. Concludes with an analysis of the domestic impact of the world wars and of contemporary society.

**2103 c - ESD, IP. Gender, Class, and Citizenship in (West) European History.** Spring 2015. Frances Gouda.

Examines the ways in which normative ideas about gender difference and class divisions shaped women's and men's political citizenship in western Europe since the eighteenth-century Enlightenment. By analyzing primary sources as well as current scholarship focusing on England, France, Germany, and the Netherlands, explores issues such as motherhood and parental rights, gendered constructions of the private and public spheres, women's access to education, and the evolution of legal entitlements and political agency. Ample attention devoted to the emergence of the first feminist (suffragist) movement beginning in the 1860s and the evolution of second-wave feminism during the late 1960s. A final topic to be explored is immigration into Western Europe since World War II and the controversies generated by multiculturalism, Islam, and the "politics of the veil." (Same as Gender and Women's Studies 2200.)

**[2105 {215} c - ESD, IP. The Paradox of Progress: Europe and the Experience of Modernity, 1815–1918.]**

**2108 {218} c - ESD, IP. The History of Russia, 1725–1924.** Fall 2015. 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 McMahan.

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

## COURSES OF INSTRUCTION

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 2015. 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 2016. 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 2016. 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}.)

**2142 c. Reconstruction and Reunion.** Spring 2015. Patrick Rael and Tess Chakkalakal.

An interdisciplinary introduction from the perspectives of art history, literary history, and history to the political, economic, and social questions arising from American Reconstruction (1866-1877) and Reunion (1878-1900) following the Civil War between the North and South. Readings delve into a wide array of primary and secondary sources, including photographs, novels, poetry, and government documents to understand the fierce political debates rooted in Reconstruction that continue to occupy conceptions of America. (Same as *Africana Studies* 2142 and *English* 28522900.)

**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}.)

**2161 {268} c - ESD Asian American History, 1850-Present.** Fall 2015. Connie Chiang.

Surveys the history of Asian Americans from the mid-nineteenth century to the present. Explores the changing experiences of Asian immigrants and Asian Americans within the larger context of American history. Major topics include immigration and migration, race relations, anti-Asian movements, labor issues, gender relations, family and community formation, resistance and civil rights, and representations of Asian Americans in American popular culture. Readings and course materials include scholarly essays and books, primary documents, novels, memoirs, and films.

**[2180 {235} c - ESD. Borderlands and Empires in Early North America.** (Same as *Environmental Studies* 2425 {235} and *Latin American Studies* 2180 {236}.)]

**2182 {242} c - ESD. Environment and Culture in North American History.** Every spring. Connie Chiang or Matthew Klinge. Spring 2015. Matthew Klinge.

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 2015. 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.

**2202 c. The History of Energy.** Fall 2014. David Hecht.

Explores how and why Americans (and others) have made the energy choices that they have. The production and distribution of energy is one of the key challenges for modern societies. It involves the development of specific technologies and industries—from fossil fuels to solar power to nuclear plants. But the history of energy transcends the technical. It intersects with law, politics, and economics; social norms and cultural values play a role as well. The connections between the technical and non-technical are central to understanding the history of energy itself, as well as its place in the history of the modern United States. (Same as Environmental Studies 2420.)

**2220 {228} c. Civil Rights and Black Power Movements in the Making of Modern America.** Fall 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 history majors.*

**2270 c - IP. History of Brazil.** Fall 2014. Laura Premack.

A survey of Brazilian history from colonization through the present day. Topics include colonial encounter between Africans, Portuguese, and indigenous peoples; transitions from colony to empire to republic; slavery and its legacy; formation of Brazilian national identity; and contemporary issues in modern Brazil. Particular attention paid to race, religion, and culture. (Same as Latin American Studies 2170.)

**2290 c. Japan: Past and Present.** Fall 2014. Tristan Grunow.

Surveys Japan's place in the world by exploring its historical evolution from the emergence of human civilization in the Japanese islands to today, emphasizing the fluid overseas contacts and interactions that have shaped Japanese culture. Topics include: the development of centralized government in the Heian Period; the rise and fall of warrior rule in Medieval



Japan; the revolutionary political and social changes accompanying the Meiji Restoration and Japan's integration into the global system; imperialism, militarism, and war in the early twentieth century; reconstruction and rejuvenation in the postwar; and Japan's recent re-emergence on the global stage. (Same as Asian Studies 2290.)

**2291 c. Power and the Built Environment in Japanese History.** Spring 2015. Tristan Grunow.

Examines how the built environment was deployed as an instrument of power throughout Japanese history. Focuses on four important historical urban settlements—Makimuku, Nara, Osaka, and Tokyo—to chart how cities and architecture were used to project power. Major emphasis on how Japanese urbanism and architecture was shaped by interactions with outside influences. Assigned literary readings and films draw on the urban experience, considering the various facets of city life in Japan. (Same as Asian Studies 2401.)

[2320 {275} c - **IP. The Emergence of Chinese Civilization.** (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}.)

**2343 {263} c - ESD, IP. Politics and Popular Culture in Modern India.** Spring 2015. Rachel Sturman.

Examines the new forms of politics and of popular culture that have shaped modernity in India. Topics include the emergence of mass politics, urbanization, modern visual culture, new media technologies, and contemporary media and democracy. (Same as Asian Studies 2582{258}.)

[2344 {280} c - **ESD, IP. Imperialism, Nationalism, Human Rights.** (Same as Asian Studies 2230 {230}.)]

[2362 {262} c - **ESD, IP. Africa and the Atlantic World, 1400-1880.**]

**2364 {264} c - ESD, IP. Conquest, Colonialism, and Independence: Africa since 1880.** Spring 2015. Olufemi Vaughan.

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.** Spring 2016. David M. Gordon.

Examines the history of East Africa with special focus on the interactions between East Africans and the Indian Ocean world. Begins with African societies prior to Portuguese



conquest through Omani colonialism and the spread of slavery across East Africa, Madagascar, and Mauritius. Addresses the onset of British, Italian, and German colonialism; rebellions against colonialism, including Mau Mau in Kenya; and post-colonial conflicts, including the Zanzibar revolution of 1964. Concludes with the rise of post-colonial Tanzania, Kenya, Mozambique, Madagascar, and Somalia, and challenges to their sovereignty by present-day Indian Ocean rebels, such as the Somali pirates. (Same as *Africana Studies* 2365 {268}.)

**2380 {208} c - IP. Christianity and Islam in West Africa.** Fall 2014. 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 2015. 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 2016. 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/US requirement for history majors.

**2502 c - IP. Socialist Societies in Nineteenth- and Twentieth-Century Europe.** Spring 2015. Thomas Fleischman.

Seminar. Examines the diverse history of socialist ideology as lived-experience across Europe. Sets the ideas of its first theorists—like Robert Owen and Karl Marx—into motion as they gave rise to Utopian settlements, like New Harmony, Indiana, and larger experiments, like the Paris Commune. In the twentieth century, it explores the USSR and the eastern bloc as experiments in non-capitalist modernity. Asks how these socialists were ruled and why they failed? How did their leaders and citizens imagine democracy and economics? What was the every-day lived-experience of not only secret police and state surveillance, but also of food, fashion, music, literature, and film?

**2541 {277} c. Crime and Punishment.** Fall 2015. Meghan Roberts.

Seminar. Explores the cultural history of crime and punishment in Europe from 1500-1800 by considering celebrated court cases and criminal figures such as witches, unfaithful wives, imposters, sodomites, and murderers. Analyzes historical methods and scholarly writing. To further develop understanding of the period, students write a research paper based on primary and secondary sources. *Note:* This course fulfills the pre-modern requirement for history majors.

Prerequisite: One course in history.

**2542 c. The Consumer Revolution, 1500-1800.** Spring 2016. Meghan Roberts.

Seminar. Examines the social, cultural, and political dimensions of consumerism in the early modern Atlantic world, from the discovery of the “New World” through the French Revolution. This was the period during which Europeans encountered new foods such as tea, coffee, and chocolate; built the homes immortalized by writers such as Jane Austen; and sported the decadent fashions beloved by Marie Antoinette. *Note:* Not open to students who have credit for History 18.

Prerequisite: One course in history.

**2560 {240} c - ESD. Only a Game? Sports and Leisure in Europe and America.** Spring 2015. Susan Tananbaum.

Seminar. Uses the lens of sport and leisure to analyze cultural and historical trends in modern Europe and the United States. Students read a range of primary and secondary texts exploring race, class, and gender and complete a significant research paper. Offered concurrently with History 3082. (Same as Gender and Women's Studies 2246 {263}.)

Prerequisite: One course numbered 1000-2969 {010-289} in history or gender and women's studies.

**2561 {222} c - ESD. Family Affairs: Changing Patterns of Family in Europe.** Spring 2016. Susan Tananbaum.

Seminar. Explores topics and debates in European family history from the early modern

period to the present. Considers the impact of social, political, religious, and economic forces on family structures and functions. Students will complete individual research projects. (Same as Gender and Women Studies 2225 {225}.)

**2580 {217} c - ESD. The German Experience, 1918–1945.** Fall 2015. Page Herrlinger.

Seminar. An in-depth inquiry into the troubled course of German history during the Weimar and Nazi periods. Among the topics explored are the impact of the Great War on culture and society in the 1920s; the rise of National Socialism; the role of race, class, and gender in the transformation of everyday life under Hitler; forms of persecution, collaboration, and resistance during the third Reich; Nazi war aims and the experience of war on the front and at “home,” including the Holocaust.

**2607 {247} c. Maine: A Community and Environmental History.** Spring 2016. Sarah McMahan.

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}.)

**2609 {249} c. History of Women’s Voices in America.** Spring 2015. Sarah McMahan.

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}.)

**[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 early twenty-first century. 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.** (Same as Gay and Lesbian Studies 2266 {266}.)]

**2680 {225} c. Image, Myth, and Memory.** Spring 2016. 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 the 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.** Spring 2015. Brian Purnell.

Seminar. Examines the lives and thoughts of Martin Luther 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/US requirement for history majors.*

**2744 c. Japan's Pacific Wars.** Spring 2015. Tristan Grunow.

Seminar. Examines the history, presentation, and memory of Japan's twentieth-century wars in the Pacific in order to contemplate how Japan's past and present has been shaped by war. Discussions focus on themes of state-formation and empire-building, tensions between tradition and modernity, cosmopolitanism and militarism, expansion and the quest for economic independence, battlefield conduct, race and propaganda, life on the homefront, defeat and occupation, postwar economic revival, and contemporary diplomatic issues and accusations of resurgent militarism. Students produce a term paper on a topic of their choosing. (Same as Asian Studies 2400.)

**[2780 {276} c - ESD, IP. The Foundations of Chinese Thought.** (Same as Asian Studies 2002 {276}.)]

**[2781 {260} c - IP. Science, Technology, and Society in China.** (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 social and political movements that have sought to redefine the relationship between religion and the state. Focusing on India and Pakistan, questions considered include: What is secularism? How have modern states sought to define their relationship with "religion?" Why and how have various political movements rejected the idea of secularism? What historical effects have these diverse movements had? Students write a research paper utilizing primary and secondary sources. (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.** Spring 2016. David M. Gordon.

## COURSES OF INSTRUCTION

Seminar. Investigates the diverse representations and uses of the past in South Africa. Begins with the difficulties in developing a critical and conciliatory version of the past in post-apartheid South Africa during and after the Truth and Reconciliation Commission. Turns to diverse historical episodes and sites of memory from the Great Trek to the inauguration of Nelson Mandela to explore issues of identity and memory from the perspectives of South Africa's various peoples. (Same as Africana Studies 2821 {269}.)

**2822 {272} c - IP. Warlords and Child Soldiers in African History.** Fall 2015. David M. Gordon.

Seminar. Examines how gender, age, religion, and race have informed ideologies of violence by considering various historical incarnations of the African warrior across time, including the hunter, the military slave, the revolutionary, the mercenary, the soldier, the warlord, the holy warrior, and the child soldier. Focuses on how fighters, followers, African civilians, and the international community have imagined the "work of war" in Africa. Readings include scholarly analyses of warfare, warriors, and warrior ideals alongside memoirs and fictional representations. (Same as Africana Studies 2822 {272}.)

**2840 {213} c. Transnational Africa and Globalization.** Fall 2014. 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. (Same as Africana Studies 2841 {216}.)]

**2861 {254} c. Contemporary Argentina.** Spring 2016. 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}.)

**2862 c. The Haitian Revolution and its Legacy.** Fall 2014. Allen Wells.

Seminar. Examines one of the most neglected revolutions in history and arguably one of its most significant. The first half of the course treats the Revolution's causes and tracks its evolution between 1791-1804. The second part studies its aftermath and its impact on Haiti, the Caribbean, Latin America, Europe, Africa, and the United States. (Same as Africana Studies 2862 and Latin American Studies 2162.)

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

**[2871 {200} c. Beyond Capoeira: History and Politics of Afro-Brazilian Culture.** (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 non-Euro/US requirement for history majors.

**3040 {307} c. Topics in Medieval and Early Modern European History.** Fall 2015. 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.

**History 3082 c. Only a Game? Sports and Leisure in Europe and America.** Spring 2015. Susan Tananbaum.

This advanced seminar will use the lens of sport and leisure to analyze cultural and historical trends in modern Europe and the United States. Students read a range of primary and secondary texts exploring race, class, and gender and complete a significant research paper using primary sources and lead a class session. Offered concurrently with History 2560.

**3122 {332} c. Community in America, Maine, and at Bowdoin.** Fall 2015. 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 2016. Patrick Rael.

A research course for majors and interested non-majors that culminates in a twenty-five- to thirty-page research paper. With the professor's consent, students may choose any topic in Civil War or African American history, broadly defined. Presents the opportunity to delve into Bowdoin's 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/US requirement for history majors.*

**3271 b. Latin American–United States Relations.** Fall 2014. Joseph S. Tulchin.

Seminar. Enhances understanding of Latin America by examining the foreign relations of the nations in the hemisphere with a special focus on relations with the United States. Begins with independence and concludes with the contemporary struggle by the nations in the region for autonomy in the international system. Class discussions explore weekly readings. Participants should have some background in the history of the United States and Latin America. Students are expected to write an original research paper. (Same as Government 3901 and Latin American Studies 3171.)

**3320 c. Revolutionary China.** Spring 2015. Leah Zuo.

China's twentieth-century destiny boils down to one word: revolution. Through analysis of historical and literary sources, provides insight into the turbulent course China has followed: from imperial monarchy to republic, from bureaucratic capitalism to command economy, from Communism to Socialism with "Chinese characteristics." Focal topics vary from year to year and each time include one or two of the following revolutions: the Revolution of 1911 (the overthrow of the last imperial dynasty), the intellectual awakening of May Fourth, the Communist Revolution in 1949, the Cultural Revolution under Mao, and the most recent capitalist reforms. Each student writes an original research paper. (Same as Asian Studies 3100.)

**[3360 c. The Common Good? A History of International Aid.** (Same as Africana Studies 3306.)]

**3401 {351} c. The Mexican Revolution.** Fall 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 2016. 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 ARCHAEOLOGY

#### Requirements

1. Art History 1100 {100}; one of Art History 2130 {213}, 2140, 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. Art History 2220
3. Any two art history courses.
4. One of the following: Classics 1101 {101}, 1111 (same as History 1111), 1112 (same as History 1112), 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}).
5. 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 1201 {170}, 1401 {180}, 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, 401 or higher; 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 SCIENCE 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, either English 2452 {262} (same as Gender and Women's Studies xxxx {262} and Theater xxxx {262}), 2654 (same as AFRS 2630), or the equivalent in another department.

## COURSES OF INSTRUCTION

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 3000–3999 {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 ECONOMICS**

### **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}.

## COURSES OF INSTRUCTION

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 in mathematics 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}, 2208 {224}, or 2209 {244}.
4. At least one mathematics course in algebra and analysis: Mathematics 2302 {232}, 2303 {233}, 2502 {232 or 253}, 2602 {262}, 2603 {263}, or 2702.
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

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 159–172.

**1010 {10} b. Health Care Disparities in the United States – A Public Challenge.** Fall 2014. Stephen F. Loeb.

**1020 c. How to Read a Million Books.** Fall 2014. Crystal Hall.

## Introductory, Intermediate, and Advanced Courses

**2420 - MCSR. Data-Driven Societies.** Spring 2015. Eric Gaze and Jen Jack Gieseck.

Tackles a number of cutting-edge issues and questions that confront society today: What sorts of questions can be answered using digital and computational methods to rethink our relationships to data, and what can data show us about the world? How do we construct models to help us better understand social phenomena and associated data? Covers topics such as data gathering, validation, analysis, and presentation, as well as statistics and software skills, such as contributing to a data-oriented web site, programming, and employing GIS and network analysis. Students leave the course with substantive experience in digital and computational methods, and a critical lens for understanding and evaluating what computers can (and cannot) bring to the study of economy, politics, and society.

**2430 b - ESD. The Digital Image of the City.** Fall 2014. Jen Jack Gieseck.

Access to large-scale data about cities has caused policymakers and activists alike to shift their focus toward a movement of smart urbanism, i.e., interventions in urban issues through better uses of technology and data, from gentrification to pollution to walkability. How can we use written argumentation, data, and data visualizations to represent the multiple experiences of the city to affect public policy and support the growth of equal and just cities? Through field research, intensive computer training, techniques of social and spatial analysis using geographic information systems (GIS), and close readings of classic and cutting-edge studies of cities, namely New York City, New York, and Portland, Maine, students will learn ways to create and critique urban public policy through data visualizations. This project-based course connects global urban issues to the intimate experiences of everyday life.

**2610. c. The Rhetoric of Big Data: Copernicus to Climate Change.** Spring 2015. Crystal Hall.

How did early modern intellectuals amass enough data to feel confident that the earth rotated around the sun? How did they write about their data (texts, diagrams, measurements, and calculations) in order to eventually convince a larger audience that the Copernican hypothesis of heliocentrism was valid even though the sun appears to move in the sky? Examines the literary, artistic, religious, political, economic, and scientific context of these questions by introducing and using large-scale digital textual analysis, network visualization, mapping, and computation. Defines a set of parameters for analyzing other famous cases of big data reshaping worldviews.

## LATIN AMERICAN STUDIES

Gustavo Faverón Patriau, *Program Director*

Jean M. Harrison, *Program Coordinator*

*Visiting Faculty:* Joseph S. Tulchin

*Fellow:* Laura Premack

*Contributing Faculty:* Greg Beckett, Michael Birenbaum Quintero, 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, Nathaniel T. Wheelwright, 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.

### First-Year Seminars

For a full description of first-year seminars, see pages 159–172.

**1026 b. The Borderlands of United States Empire: Puerto Rican Histories and Identities.** Fall 2014. Melissa Rosario. (Same as Anthropology 1026.)

**1044 c. The Historical and Contemporary Maya.** Spring 2015. Allen Wells. (Same as History 1044.)

### Introductory, Intermediate, and Advanced Courses

**1300 {130} c - IP. Introduction to the Arts of Ancient Mexico and Peru.** Spring 2015. 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 Latin American Studies 1300 {130}.)



**1337 {137} c - ESD, VPA. CuBop, Up-Rock, Boogaloo, and Banda: Latinos Making Music in the United States.** Fall 2014. Michael Birenbaum Quintero.

Surveys the musical styles of Latinos in the United States. Discusses the role of these styles in articulating race, class, gender, and sexual identities for US Latinos, their circulation along migration routes, their role in identity politics and ethnic marketing, their commercial crossover to Anglo audiences, and Latin/o contributions to jazz, funk, doo-wop, disco, and hip-hop. Case studies may include Mexican-American/Chicano, Puerto Rican/Nuyorican, and Cuban-American styles; Latin music in golden age Hollywood; Latin dance crazes from mambo to the Macarena; rock en español; the early 2000s boom of Latin artists like Shakira, Enrique Iglesias, and Jennifer Lopez; reggaetón, race politics, and the creation of the “Hurban” market; and the transnational Latin music industries of Los Angeles, New York, and Miami. (Same as Music 1269 {137}.)

**[2005 {250} c - ESD. The Making of a Race: Latino Fictions.** (Same as English 2570 {250} and Spanish 2505 {250}.)]

**2104 {266} c - IP. History of Mexico.** Spring 2016. 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.** (Same as Africana Studies 2210 {210} and History 2871 {200}.)]

**2161 {254} c. Contemporary Argentina.** Spring 2016. 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}.)

**2162 c. The Haitian Revolution and its Legacy.** Fall 2014. Allen Wells.

Seminar. Examines one of the most neglected revolutions in history and arguably one of its most significant. The first half of the course treats the Revolution's causes and tracks its evolution between 1791-1804. The second part studies its aftermath and its impact on Haiti, the Caribbean, Latin America, Europe, Africa, and the United States. (Same as Africana Studies 2862 and History 2862.)

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

**2170 c -IP. History of Brazil.** Fall 2014. Laura Premack.

A survey of Brazilian history from colonization through the present day. Topics include colonial encounter between Africans, Portuguese, and indigenous peoples; transitions from colony to empire to republic; slavery and its legacy; formation of Brazilian national identity; and contemporary issues in modern Brazil. Particular attention paid to race, religion, and culture. (Same as History 2270.)

**[2180 {236} c - ESD. Borderlands and Empires in Early North America.** (Same as Environmental Studies 2425 {235} and History 2180 {235}.)]

**2205 {205} c. Advanced Spanish.** Every semester. Fall 2014. Elena Cueto Asín, Margaret Boyle, and Enrique Yepes. Spring 2015. Nadia V. Celis and Carolyn Wolfenzon.

Studies 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 2015. 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.

**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 2015. 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 2014. 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. Increases cultural understanding prior to study abroad in French-speaking regions. (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 2014. Gustavo Faverón Patriau. Spring 2015. Elena Cueto Asín 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 2014. Nadia V. Celis and Carolyn Wolfenzon. Spring 2015. Gustavo Faverón Patriau.

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. 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 Pan-Americanism 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}.

**2720 b - ESD. Latinas and Latinos in the United States.** Spring 2015. Marcos Lopez.

Latinas/os are the largest minority group in the United States. Analyzes the Latina/o experience in the United States, with special focus on migration, incorporation, and strategies for economic and social empowerment. Explores diversity within the US Latina/o community by drawing on comparative lessons from Cuban-American, Puerto Rican, Dominican, Chicano/Mexican, and Central American patterns of economic participation, political mobilization, and cultural integration. (Same as Sociology 2320.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}, or permission of the instructor.

**[2724 {223} b - ESD. Religion and Social Transformation in South America.** (Same as Anthropology 2723 {224}.)

**2725 b - ESD, IP. Global Politics of Work.** Fall 2014. Marcos Lopez.

Globally, a large portion of life is devoted to work. The type of work that people perform reflects global inequalities. Introduces the history of wage-labor and theoretical concepts used to understand the shifting dimensions of work and its implication for the global workforce. Particular focus on labor in the US, Latin America, and Asia; manufacturing and service work; migration and labor trafficking; the body as the site for transforming labor in wage-labor; and forms of labor resistance. (Same as Sociology 2225.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

**2735 b - IP. Contemporary Haiti.** Spring 2015. Greg Beckett.

Examines contemporary Haitian culture and society in the context of a prolonged series of crises and international interventions. Focuses on the democratic transition of the late twentieth century and the recent humanitarian intervention in the wake of a series of natural disasters. Considers the historical roots of the Haitian crisis with a particular focus on Haiti's marginalization within the world system. Explores the relationship between Haiti and the international community, especially the role of nongovernmental organizations, humanitarian organizations, and international institutions in the everyday lives of Haitians. (Same as Africana Studies 2735 and Anthropology 2735.)

Prerequisite: One of the following: Anthropology 1101 {101}, Sociology 1101 {101}, or Africana Studies 1101 {101}.

**2738 {238} b - IP. Culture and Power in the Andes.** Fall 2014. Krista Van Vleet.

Explores the anthropology and history of the Andes, focusing on questions of cultural transformation and continuity among Native Andeans. Examines ethnography, popular culture, and current events of Bolivia, Ecuador, and Peru. Topics include the Inca state and Spanish colonization; Native Andean family and community life; subsistence economies; gender, class, and ethnic inequalities and social movements; domestic and state violence; religion; tourism; coca and cocaine production; and migration. (Same as Anthropology 2729 {238}.)

Prerequisite: Anthropology 1101 {101} or permission of the instructor.

[2746 {246} b. **Immigration and the Politics of Exclusion.** (Same as Sociology 2370 {237}.)]

**2771 {277} b. Children and Youth in Global Perspective.** Spring 2015. Krista Van Vleet.

Explores research on children as a window into issues of individual agency and social, political, and economic inequality in the contemporary world. Children move between families, communities, and nations; claim belonging to divergent communities; create distinct identities; and navigate hierarchies. Highlights the circulation of children as structured by broad relationships of power. Forefronts youth as social actors. Considers culturally specific notions of childhood and methodological and ethical implications of research with children. Topics include adoption, migration, human trafficking, child labor, tourism, and social movements in the Americas, Asia, Oceania, and/or Africa. (Same as Anthropology 2371 {277}.)

Prerequisite: Anthropology 1101 {101} or Sociology 1101 {101}, or permission of the instructor.

[2774 b. **The Borderlands of United States Empire: Puerto Rican Identities and Histories.** (Same as Anthropology 2274.)]

**2970–2973 c. Intermediate Independent Study in Latin American Studies.** The Program.

[3005 {305} c - ESD. **The Making of a Race: Latino Fictions.** (Same as English 2571 {221} and Spanish 3005 {305}.)]

**3101 {352} c. The Mexican Revolution.** Fall 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 2016. 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}.)

**3171 b. Latin American–United States Relations.** Fall 2014. Joseph S. Tulchin.

Seminar. Enhances understanding of Latin America by examining the foreign relations of the nations in the hemisphere with a special focus on relations with the United States. Begins with independence and concludes with the contemporary struggle by the nations in the region for autonomy in the international system. Class discussions explore weekly readings. Participants should have some background in the history of the United States and Latin America. Students are expected to write an original research paper. (Same as Government 3901 and History 3271.)

**[3202 {302} c. The Idea of Latin America.** (Same as Spanish 3002 {302}.)]

**[3211 c. Bringing the Female Maroon to Memory: Female Marronage and Douboutism in the Caribbean.** (Same as French 3211, Gender and Women’s Studies 3211, and Latin American Studies 3211.)]

**3218 {318} c. A Journey around Macondo: García Márquez and His Contemporaries.** Spring 2015. Nadia Celis.

Studies the main topics, techniques, and contributions of Colombian Nobel Prize winner Gabriel García Márquez as presented in *One Hundred Years of Solitude*. Explores the actual locations, social, cultural and literary trends that inspired the creation of Macondo, the so-called “village of the world” where the novel takes place, and the universal themes to which this imaginary town relates. Contemporary authors include Fuenmayor, Cepeda Samudio, and Rojas Herazo. (Same as Spanish 3218 {318}.)

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.

**3219 c. Letters from the Asylum: Madness and Representation in Latin American Fiction.** Fall 2014. Gustavo Faverón Patriau.

Explores the concept of madness and the varying representations of mental illness in twentieth-century Latin American fiction. Readings include short stories and novels dealing with the issues of schizophrenia, paranoia, and psychotic behavior by authors such as Horacio Quiroga, Jorge Luis Borges, Cristina Rivera Garza, and Carlos Fuentes. Also studies the ways in which certain authors draw from the language and symptoms of schizophrenia and paranoia in order to construct the narrative format of their works and in order to enhance their representation of social, political, and historical conjunctures. Authors include Diamela Eltit, Ricardo Piglia, César Aira, and Roberto Bolaño. (Same as Spanish 3219 {319}.)

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.

**3223 {323} c. The War of the (Latin American) Worlds.** Fall 2014. Carolyn Wolfenzon.

Discusses the historical, social, and political consequences of the clash between tradition and modernity in Latin America during the nineteenth and twentieth centuries as seen through

novels, short stories, and film. Particular attention given to the ways in which the processes of modernization have caused the coexistence of divergent “worlds” within Latin American countries. Analyzes different social and political reactions to these conflictive realities, focusing on four cases: the Mexican Revolution, the Cuban Revolution, the dictatorship of Augusto Pinochet in Chile, and Andean insurgencies in Perú. Authors may include José Martí, Simón Bolívar, Jorge Luis Borges, Roberto Bolaño, Mario Vargas Llosa, Cromwell Jara, Elena Poniatowska, Reinaldo Arenas, Juan Rulfo, and Gabriel García Márquez, among others. (Same as Spanish 3223 {323}.)

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.

**[3226 {326} c. A Body “of One’s Own”: Latina and Caribbean Women Writers.** (Same as Gender and Women’s Studies 3326 {326} and Spanish 3226 {326}.)]

**3232 {332} c. Poetry and Social Activism in Latin America.** Fall 2014. Enrique Yepes.

Considers the aesthetic and thematic problems posed by socially committed poetry during the last 100 years in Spanish America, from the avant-garde to the present. Authors include Mistral, Vallejo, Neruda, Guillén, Cardenal, Belli, and Dalton, among others. (Same as Spanish 3232 {332}.)

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.

**[3237 {337} c. Hispanic Short Story.** (Same as Spanish 3237 {337}.)]

**[3239 {339} c. Borges and the Borgesian.** (Same as Spanish 3239 {339}.)]

**[3243 {343} c. Imaginary Cities/Real Cities in Latin America.** (Same as Spanish 3243 {343}.)]

**[3245 {345} c. Ecological Thought in Latin American Literature.** (Same as Environmental Studies 2485 {285} and Spanish 3245 {345}.)]

**[3711 {311} b - ESD, IP. Global Sexualities/Local Desires.** (Same as Anthropology 3100 {313}, Gay and Lesbian Studies 3100 {313}, and Gender and Women’s Studies 3100 {313}.)]

**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

Adam B. Levy, *Department Chair*

Suzanne M. Theberge, *Senior Department Coordinator*

*Professors:* William Barker, Adam B. Levy, Jennifer Taback, Mary Lou Zeeman

*Associate Professor:* Thomas Pietraho

*Assistant Professors:* John O'Brien, Amanda Redlich, Manuel Reyes\*\*

*Lecturers:* Eric Gaze, Michael King, Miriam Logan

*Visiting Faculty:* Leon Harkleroad

*Fellows:* Justin Marks, Alanna Hoyer-Leitzel

## 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}, 2502 {232 or 252}, 2602 {262}, 2702, 3602, 3702 {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 221 and 223–224.

## 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}, 2303 {233}, 2404 {247}, 2502 {232 or 252}, 2602 {262}, 2603 {263}, 2606 {265}, 2702.

### *For graduate study:*

Mathematics 2000 {201}, 2020 {200}, 2303 {233}, 2501 {253}, 2602 {262}, 2603 {263}, 2702, 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}, 2603 {263}, 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. Fall 2014. Eric Gaze and Miriam Logan. Spring 2015. Miriam Logan.

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, and 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.

Prerequisite: Placement in Mathematics 1050 {50} and permission of Director of Quantitative Reasoning.

**1200 {155} a - MCSR. Introduction to Statistics and Data Analysis.** Every fall. Fall 2014. Leon Harkleroad.

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}.

Prerequisite: Placement in Mathematics 1200 {155}.

**1300 {165} a - MCSR. Biostatistics.** Every semester. Fall 2014. John O'Brien. Spring 2015. 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}.

Prerequisite: Placement in Mathematics 1300 {165}.

**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 anti-derivative. 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 semester. 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 2014. William Barker and Miriam Logan. Spring 2015. 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 courses, or permission of the instructor.

**2020 {200} a - MCSR. Introduction to Mathematical Reasoning.** Every semester. Fall 2014. Michael King. Spring 2015. 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 courses, 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, or permission of the instructor.

**2109 {229} a - MCSR. Optimization.** Every other spring. Spring 2015. 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.

## COURSES OF INSTRUCTION

Issues of duality and sensitivity to data perturbations are covered, and there are extensive applications to real-world problems.

Prerequisite: Mathematics 2000 {201}, or permission of the instructor.

**2206 {225} a - MCSR. Probability.** Every semester. Fall 2014. Justin Marks. Spring 2015. 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 courses, or permission of the instructor.

**2208 {224} a - MCSR. Ordinary Differential Equations.** Fall 2014. Michael King. Spring 2015. The Department.

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 spring. Spring 2016. 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.** Every other fall. Fall 2015. 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.

**2303 {233} a - MCSR. Functions of a Complex Variable.** Every other fall. Fall 2015. The Department.

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}, or permission of the instructor.

**2404 {247} a - MCSR. Geometry.** Every other fall. 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 three-dimensional geometry, ornamental groups, area, volume, fractional dimension, and fractals.

Prerequisite: Mathematics 200 {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, tensors, 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} or permission of the instructor.

**2502 {252} a - MCSR. Number Theory and Cryptography.** Every other spring. Spring 2015. The Department.

A survey of number theory from Euclid's proof that there are infinitely many primes through Wiles's proof of Fermat's Last Theorem in 1994. Prime numbers, unique prime factorization, and results on counting primes. The structure of modular number systems. Continued fractions and "best" approximations to irrational numbers. Investigation of the Gaussian integers and other generalizations. Squares, sums of squares, and the law of quadratic reciprocity. Applications to modern methods of cryptography, including public key cryptography and RSA encryption.

Prerequisite: Mathematics 2020 {200} or permission of the instructor.

**2601 {258} a - MCSR. Combinatorics and Graph Theory.** Every other fall. Fall 2014. Amanda Redlich.

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. Group Theory.** Every other fall. Fall 2014. Jennifer Taback.

An introduction to algebraic structures based on the study of groups. Finite and infinite groups, rings, and fields, with examples ranging from symmetry groups to polynomials and matrices. Studies properties of mappings that preserve algebraic structures. Topics include cyclic groups, isomorphisms and homomorphisms, normal subgroups, quotient groups, and the structure of finite abelian groups.

Prerequisite: Mathematics 2000 {201} and 2020 {200}, or permission of the instructor.

**2603 {263} a - MCSR. Introduction to Analysis.** Every year. Fall 2014. Thomas Pietraho.

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

## COURSES OF INSTRUCTION

metric spaces, point-set topology, sequences and series, continuity, differentiability, the theory of Riemann integration, functional approximation, and convergence.

Prerequisite: Mathematics 2020 {200}, or permission of the instructor.

**2604 {267} a - MCSR. Topology.** Every other spring. Spring 2016. 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.

**2702 a - MCSR. Rings and Fields.** Every other fall. Fall 2015. Manuel Reyes.

An introduction to algebraic structures based on the study of rings and fields. Structure of groups, rings, and fields, with an emphasis on examples. Fundamental topics include: homomorphisms, ideals, quotient rings, integral domains, polynomial rings, field extensions. Further topics may include: unique factorization domains, rings of fractions, finite fields, vector spaces over arbitrary fields, and modules. Mathematics 2502 is helpful but not required.

Prerequisite: Mathematics 2000 {201} and 2020 {200}, 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.** Every other spring. Spring 2016. The Department.

A study of mathematical modeling, with emphasis on how to identify scientific questions appropriate for modeling, how to develop a model appropriate for a given scientific question, and how to interpret model predictions. Applications drawn from the natural, physical, environmental, and sustainability sciences. Model analysis uses a combination of computer simulation and theoretical methods and focuses on predictive capacity of a model. Three hours of class meetings and 1.5 hours of computer laboratory sessions per week.

Prerequisite: Mathematics 2000 {201}, 2020 {200}, and 2208 {224}, or permission of the instructor.

**3109 a. Optimal Control.** Every other fall. Fall 2015. The Department.

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}, 2020 {200}, and 2208 {224}, or permission of the instructor.

**3208 a. Advanced Topics in Dynamical Systems.** Every other spring. Spring 2015. Mary Lou Zeeman.

A study of nonlinear dynamical systems arising in applications, with emphasis on modern geometric, topological, and analytical techniques to determine global system behavior, from which predictions can be made. Topics chosen from local stability theory and invariant manifolds, limit cycles and oscillation, global phase portraits, bifurcation and resilience, multiple time scales, and chaos. Theoretical methods supported by simulations. Applications drawn from across the sciences.

Prerequisite: Mathematics 2000 {201}, 2020 {200}, 2208 {224}, and 2603 {263}, or permission of the instructor.

**3209 a. Partial Differential Equations.** Every other fall. 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 264.

Prerequisite: Mathematics 2000 {201}, 2020 {200}, and 2208 {224}, or permission of the instructor.

**3404 {307} a. Projective and Non-Euclidean Geometries.** Every other fall. Fall 2014. 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 Group Theory.** Every other spring. Spring 2015. The Department.

The study of group actions on geometric objects; understanding finite and discrete groups via generators and presentations. Applications to geometry, topology, and linear algebra, focusing on certain families of groups. Topics may include Cayley graphs, the word problem, growth of groups, and group representations.

Prerequisite: Mathematics 2602 {262} or 2702 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 Lebesgue 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 2014. 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.

**3702 a. Advanced Topics in Rings and Number Theory.** Every other fall. Fall 2015. Manuel Reyes.

Advanced topics in modern algebra based on rings and fields. Possible topics include: Galois theory with applications to geometric constructions and (in)solvability of polynomial equations; algebraic number theory and number fields such as the  $p$ -adic number system; commutative algebra; algebraic geometry; and solutions to systems of polynomial equations.

Prerequisite: Mathematics 2602 {262} or 2702, 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

Vincet Shende, *Department Chair*

Linda Marquis, *Senior Department Coordinator*

*Professors:* Robert K. Greenlee, Mary Hunter, Cristle Collins Judd

*Associate Professor:* Vincet Shende

*Assistant Professors:* Michael Birenbaum Quintero, Tracy McMullen

*Senior Lecturers:* Anthony F. Antolini\*, Frank Mauceri

*Lecturers:* Emily Isaacson, John Morneau, Christopher Watkinson

*Artist in Residence:* George Lopez

*Fellow:* Susan M. Taffe Reed

## Requirements for the Major in Music

The music major consists of twelve credits that include courses from three areas: social and historical context (x1xx-x3xx), theory and composition (x4xx-x5xx), and performance (x6xx-x8xx). Majors can choose either to pursue a broader curriculum with some balance among these areas or to concentrate in one of them, as indicated in the specific courses listed below. All majors are also required in their final semester to take an independent study that includes a seminar component. Honors work normally adds one extra course credit, and its second semester counts as the senior independent study. Only one academic course in which the grade of CR (Credit) is received 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 to the faculty member a list of courses that fulfill the major according to the guidelines below. (3) Upon departmental approval of the list, 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.

## Sequence of Courses for the Music Major

### **General**

*Theory and Composition:* Music 1401 {101}, and at least two electives in this area.

*Social and Historical Context:* Music 1101 {131} or 2101 {211}, and at least two electives in this area.

*Performance:* One consecutive year in a single ensemble (from Music 2700s {269-281}), and one consecutive year in Individual Performance Studies (Music 2800s {285-286}).

*Capstone, any area:* Music 4040 {451}.

In addition: Three electives in any area, with the exception of 2700s {269-281} and 2800s {285-289}.

At least four elective courses must be at the 2000-level {200-level} or above, and at least one at the 3000-level {300-level}.



### ***Music in Social and Historical Context***

*Theory and Composition:* Music 1051 {61} or 1401 {101}, and at least one elective in this area.

*Social and Historical Context:* Music 1101 {131}, 2101 {211}, one course from 3100-3399 {350–358}, and four electives in this area, of which three must be at the 2000-level {200-level} or above. On department approval, two of these may be in a related field outside the department.

*Performance:* A consecutive year in each of two different ensembles (Music 2700s {269-281}); or one consecutive year of ensembles, and one consecutive year in Individual Performance Studies (Music 2800s {285-286}).

*Capstone, Social and Historical Context:* Music 4040 {451}.

### ***Theory and Composition***

*Theory and Composition:* Music 1401 {101}, 2402 or 2403 {202}, 2501 {243}; also four more courses, one each from the following pairs: Music 1451 {105} or 2551 {218}, 2401 {203} or 2602 {221}, 3401 {301} or 3403 {303}, 3501 {361} or 3551 {315}.

*Social and Historical Context:* Music 1101 {131} or 2101 {211}, and any course in this area at the 2000-level {200-level} or above.

*Performance:* One consecutive year of ensembles (from Music 2700s {269-281}), and one consecutive year in Individual Performance Studies (Music 2800s {285-286}).

*Capstone, Theory and Composition:* Music 4040 {451}.

### ***Performance***

*Theory and Composition:* Music 1401 {101}, 2401 {203}, 2402 or 2403 {202}.

*Social and Historical Context:* Music 1101 {131} or 2101 {211}, and a course relevant to student's area of performance.

*Performance:* 2601 {258} or 2603, 2602 {221}, one consecutive year in two different ensembles (from Music 2700s {269-281}), one consecutive year in Individual Performance Studies (Music 2800s {285-286}, and 3805 {385}).

*Capstone, Performance:* Music 4040 {451}.

## **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 for credit in a single ensemble). The five academic courses include 1401 {101} and any four others including at least two at the intermediate (2xxx {2xx}) level or higher. 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 159–172.

**1011 c. Holy Songs in a Strange Land.** Spring 2015. Judith Casselberry. (Same as Africana Studies 1019.)

**1015 c. Women and the Blues.** Fall 2014. Susan M. Taffe Reed. (Same as Africana Studies 1015 and Gender and Women's Studies 1030.)

## Introductory, Intermediate, and Advanced Courses

**1051 {61} c - VPA. Fundamentals of Music.** Every semester. Fall 2014. Mary Hunter. Spring 2015. Robby Greenlee.

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.

**1101 {131} c. Sound, Self, and Society: Music and Everyday Life.** Every fall. Fall 2014. 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.**]

**1260 {141} c - ESD, VPA. American Indian Musical Traditions in Eastern North America.** Spring 2015. 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.** Fall 2014. Michael Birenbaum Quintero.

Surveys the musical styles of Latinos in the United States. Discusses the role of these styles in articulating race, class, gender, and sexual identities for US Latinos, their circulation along migration routes, their role in identity politics and ethnic marketing, their commercial crossover to Anglo audiences, and Latina/o contributions to jazz, funk, doo-wop, disco, and hip-hop. Case studies may include Mexican-American/Chicano, Puerto Rican/Nuyorican, and Cuban-American styles; Latin music in golden age Hollywood; Latin dance crazes from mambo to the Macarena; rock en español; the early 2000s boom of Latin artists like Shakira, Enrique Iglesias, and Jennifer Lopez; reggaetón, race politics, and the creation of the “Hurban” market; and the transnational Latin music industries of Los Angeles, New York, and Miami. (Same as Latin American Studies 1337 {137}.)

**1281 {121} c - VPA. History of Jazz I.** Spring 2017. Tracy McMullen.

A socio-cultural, historical, and analytical introduction to jazz music from the turn of the twentieth century to around 1950. Includes some concert attendance. (Same as Africana Studies 1581 {121}.)

**1292 {140} c - ESD, VPA. History of Hip-Hop.** Spring 2015. Tracy McMullen.

Traces the history of hip-hop culture (with a focus on rap music) from its beginnings in the Caribbean through its transformation into a global phenomenon. Explores constructions of race, gender, class, and sexuality in hip-hop's production, promotion, and consumption, as well as the ways in which changing media technology and corporate consolidation influenced the music. Artists/bands investigated will include Grandmaster Flash, Public Enemy, MC Lyte, Lil' Kim, Snoop Dog, Eminem, Nicki Minaj, and DJ Spooky. (Same as Africana Studies 1592 {159} and Gender and Women's Studies 1592 {140}.)

**1301 {102} c - VPA. Introduction to Classical Music.** Fall 2015. 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.** Spring 2015. Mary Hunter.

Opera has the reputation of being a ridiculous and unnatural entertainment for the elite. There's something to that; but for the 400 years of its existence opera has also had audiences from many walks of life who have been essentially addicted to its pleasures. In addition, it is a genre that chronicles the preoccupations and anxieties of the places and times in which it is written and produced. We think about what opera is and where it fits in society; we examine a number of representative works and excerpts; and we think about how phenomena like the Metropolitan Opera's HD broadcast affect opera's place in society.

**1401 {101} c - VPA. Introduction to Music Theory.** Every year. Fall 2014. Vineet Shende.

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 2015. 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 create their own mix of music recorded during class time.

**1501 {164} c - VPA. A Cappella.** Spring 2016. Robert Greenlee.

A study of arranging and rehearsing a cappella music in recent styles, focusing on folk song arrangements, pop music in the collegiate a cappella tradition, and spirituals. Techniques of arranging include the use of chords, spacing and voice leading, textures, vocables, and adaptation of instrumental accompaniments to choral music. Also covered are conducting and vocal techniques; students expected to sing.

**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.

**2281 c. History of Jazz II.** Fall 2014. Tracy McMullen.

Provides a socio-cultural, historical, and analytical introduction to jazz music from around 1950 to the present. Addresses the history of jazz in terms of changes in musical techniques and social values and approaches music as a site of celebration and struggle over relationships and ideals. Builds ability to hear differences among performances and styles. Enriches knowledge of US history as it affects and is affected by musical activities and studies the stakes and motives behind the controversies and debates that have often surrounded various styles of African American music. (Same as Africana Studies 2281.)

Prerequisite: Music 1281 {121} (same as Africana Studies 1581 {121}.)

**[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, Meshell 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.]**

**2293 {251} c - VPA. Rebel Yell: Punk Music inside and outside the Mainstream.** Spring 2015. 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 music—may 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 *Messiah* 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.

**2303 c. Gender, Sexuality, and Race in Classical Music.** Spring 2015. Mary Hunter.

Both Romanticism and Modernism, in different ways, have encouraged the idea that “classical music” transcends the particularities of gender, race, and sexuality, and that it exists in a “pure” realm, largely unmediated by the social circumstances of composers, performers, and listeners. This idea has been thoroughly questioned in the past several decades. Addresses topics such as why female composers are so poorly represented in the canonic repertoire, whether a composer’s sexuality makes a difference to his or her music or to the way we listen to it, and the places of African Americans and Asians in classical music culture.

Prerequisite: one course in music.

**2401 {203} c - VPA. Tonal Analysis.** Spring 2016. Mary Hunter.

Through a survey of music from Bach to Chopin, students learn to recognize the basic processes and forms of tonal music, to read a score fluently, and to identify chords and modulations.

Prerequisite: Music 1401 {101} or 2402 or 2403 {151 or 202}, or permission of the instructor.

**2403 {202} c - VPA. Songwriting and Song Analysis.** Every fall. Fall 2014. 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 largely chosen by students, but also includes 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 2015. 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 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}, 2401 {203}, 2402 {202}, or 2403 {202}; or permission of the instructor.

**2551 {218} c - VPA. Introduction to Electronic Music.** Every fall. Fall 2014. 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}, or permission of the instructor.

**2601 {258} c - VPA. Classical Music and Performance.** Spring 2016. 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.** Spring 2015. Frank Mauceri.

Do we understand improvised and composed music differently, and if so how? Investigates musical syntax in improvised settings and its consequences for the organization of time in music. Also considers the social functions and meanings of improvisation. Analysis draws from recordings, interviews, and writings in ethnomusicology, semiotics, and music theory. At the same time, students participate in regular improvisation workshops exploring vernacular musics, avant-garde open forms, and interactive electronics.

Prerequisite: Music 2402 or 2403{151}, or permission of the instructor.

**2603 c - VPA. Art of Singing.** Fall 2014. Robert Greenlee.

A study of singing traditions, emphasizing American popular music and classical music. Topics comprise vocal color and production, the influence of language on singing, performing practices, improvisation, and aesthetic response. Projects include performances and analyses of recorded music.

Prerequisite: previous or concurrent enrollment in one of the following: Music 1401 {101}, 1501 {164}, 2402 {202}, 2403 {202}, or 2771 {271}.

**3101 {357} c. Sound Travels: From Mozart to MP3.** Fall 2014. Michael Birenbaum Quintero.

Traces histories of the political economy of music. Examines the politics, economics, ethics, and senses of belonging that accompany global and transcultural networks of musical exchange along paths of conquest, commerce, religion, and technological change. Case studies may include Orientalist operas, colonial African and Asian brass bands, music and pilgrimage, African music in seventeenth-century Portugal, Scottish music in Meiji Japan, karaoke in the Vietnamese diaspora, music in Second Life, crooners and the massification of intimacy, the ethics of world music sampling, questions of agency and homogenization in the culture industry, the economics of file sharing, and sound as property in copyright law, from the player piano to the Wacky Quacker soundmark case.

Prerequisite: Previous credit or concurrent registration in Music 2101 {211}.

[3103 c. **Gender, Sexuality, and Popular Music.** (Same as Gender and Women's Studies 3103.)]

**3501 {361} c. Orchestration.** Every other year. Spring 2015. Vineet Shende.

An in-depth examination of acoustical, technical, and musical factors to consider when writing for modern orchestral instruments. In addition to readings, exercises, in-class instrument demonstrations, score study, and listening, students orchestrate four main projects: a string quartet, a woodwind quintet, and a work for full orchestra, all of which are performed.

Prerequisite: Music 2401 {203} or 2501 {243}, or permission of the instructor.

**3551 {315} c - VPA. Computer Music Composition and Sound Synthesis.** Every other year. Spring 2015. Frank Mauceri.

Covers advanced topics in computer music. Focuses on algorithmic composition and sound synthesis. Discusses the significance of these techniques with reference to information theory, cybernetics, and cultural critiques of media technology. Students design projects in computer-assisted composition, video sound tracks, and live (real time) media applications.

Prerequisite: Music 2551 {218}, or permission of the instructor.

**2970–2973 {291–294} c. Intermediate Independent Study in Music.** The Department.

**2999 {299} c. Intermediate Collaborative Study in Music.** The Department.

**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 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.

## PERFORMANCE 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 is designated Music 2805 {285}. The second and all subsequent semesters of credit lessons on the same instrument is designated Music 2806 {286}. The first semester of study on a different instrument is designated Music 2807 {287}. The second and all subsequent semesters of study on that second instrument is designated Music 2808 {288}. The number Music 2809 {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 \$540 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 is designated Music 3805 {385}. The second and all subsequent semesters of private lessons on the same instrument are designated Music 3806 {386}. The number 3807 {387} 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 meet all deadlines. The letter grade is determined jointly by the applied teacher and the faculty member after the recital.
6. Fees as with half-credit lessons.

Instructors for 2014-15 include Christina Astrachan (voice), Naydene Bowder (piano and harpsichord), Christina Chute (cello), Ray Cornils (organ), Matt Fogg (jazz piano), Steve Grover (percussion), Anita Jerosch (low brass), Timothy Johnson (voice), John Johnstone



## COURSES OF INSTRUCTION

(classical guitar), David Joseph (bassoon), George Lopez (piano), Frank Mauceri (jazz sax), Kathleen McNerney (oboe), Kirsten Monke (viola), Joyce Moulton (piano), Taylor O'Donnell (pop/jazz voice), Gilbert Peltola (clarinet), Karen Pierce (voice), Dean Stein (violin), Mark Tipton (trumpet), Krysia Tripp (flute), Scott Vaillancourt (tuba), Yasmin Vitalius (violin), and Gary Wittner (jazz guitar).

**Music Ensembles.** Every semester.

The following provisions govern ensembles:

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 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.** Eric LaPerna and Amos Libby.

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 performs one concert per semester. 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.** Robert Greenlee.

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.** Fall 2014. Emily Isaacson. Spring 2015. Anthony Antolini.

An auditioned ensemble of students, faculty, staff, and community singers. At least one of the semesters features a large-scale work for chorus and orchestra. Recent tours have included all the major cities of New England, Serbia, Bulgaria, and Greece. Rehearsals are Thursday and Sunday evenings. Sight reading ability is desired but not required.

**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 are 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 Birenbaum Quintero.

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. Rehearsals are Monday and Wednesday evenings.

**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

Hadley Wilson Horch, *Program Director*

Julie J. Santorella, *Program Coordinator*

*Professors:* Patsy S. Dickinson (Biology), Richmond R. Thompson (Psychology)

*Associate Professor:* Hadley Wilson Horch (Biology)

*Assistant Professor:* Erika M. Nyhus (Psychology)

*Contributing Faculty:* Mary Lou Zeeman

*Laboratory Instructor:* Nancy J. Curtis

## 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 COURSES

### 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

Psychology 3055 a. Cognitive Neuroscience of Memory

## 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 1101 {101} a. Introduction to Computer Science

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 2060 b. Cognitive Neuroscience

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

Matthew Stuart, *Department Chair*

Jean M. Harrison, *Department Coordinator*

*Professors:* Scott R. Schon†, Matthew Stuart

*Associate Professors:* Sarah O'Brien Conly\*\*, Lawrence H. Simon (Environmental Studies)

*Assistant Professor:* Kristi Olson

*Fellow:* Brian Hyun Kim

### 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 159–172.

**1035 {15} c. Altruism.** Fall 2014. Lawrence Simon.

**1039 c. Existentialism.** Fall 2014. Sarah Conly.

[1040 {14} c. Personal Identity.]

### 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.]

**1320 {120} c. Moral Problems.** Spring 2015. Kristi Olson.

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.

**1321 c. Philosophical Issues of Gender and Race.** Fall 2015. Kristi Olson.

A philosophical exploration of contemporary issues of gender and race. Possible topics include the social construction of race and gender, implicit bias, racial profiling, pornography, the gender wage gap, affirmative action, race and incarceration, transgender issues, and reparations for past harms. Readings drawn from philosophy, legal studies, and the social sciences. (Same as Gender and Women's Studies 1321.)

**[1435 {145} c. Truth and Morality: One, Many, or None?]**

**1436 c. Strange Worlds.** Fall 2014. Matthew Stuart.

Philosophy challenges us to justify the beliefs that we ordinarily take for granted. Some philosophers argue that commonsense beliefs cannot meet this challenge—that reality is very different from how things seem. Parmenides argues that there is only one thing. Sextus Empiricus tries to convince us that nobody knows anything (not even that nobody knows anything!) Gottfried Leibniz argues that only minds exist. J. M. E. McTaggart contends that time is unreal. C. L. Hardin denies that anything is colored. Examines these and other strange conclusions, as well as the arguments offered in support of them.

**1442 {142} c. Philosophy of Religion.** Spring 2016. Scott Sehon.

Does God exist? Can the existence of God be proven? Can it be disproven? Is it rational to believe in God? What does it mean to say that God exists (or does not exist)? What distinguishes religious beliefs from non-religious beliefs? What is the relation between religion and science? Approaches these and related questions through a variety of historical and contemporary sources, including philosophers, scientists, and theologians. (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.** Fall 2014. Sarah Conly.

Studies some of the most important works by Plato and Aristotle, two of the greatest western thinkers and major influences on western thought. Explores questions in ethics, politics, art, psychology, the concept of knowledge, and the nature of reality.

**2112 {112} c. Modern Philosophy.** Spring 2015. 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 2014. Kristi Olson.

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

## COURSES OF INSTRUCTION

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 2016. Scott Schon.

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.

**2320 {220} c. Bioethics.** Spring 2016. Sarah Conly.

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 2015. 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.

**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}.)

**2359 c. Ethics of Climate Change.** Spring 2016. Kristi Olson.

Examines moral questions raised by climate change, including: What would constitute a just allocation of burdens? What do we collectively owe to future generations? If collective action fails, what are our obligations as individuals? When, if at all, is civil disobedience justified? Readings drawn primarily from contemporary philosophy. (Same as Environmental Studies 2459.)

**[2410 {210} c. Philosophy of Mind.]**

**[2425 {225} c. Philosophy of Science.]**

**2427 {227} c. Metaphysics.** Spring 2015. Matthew Stuart.

Metaphysics is the study of very abstract questions about reality. What does reality include? What is the relation between things and their properties? What is time? Do objects and persons have temporal parts as well as spatial parts? What accounts for the identity of persons over time? What is action, and do we ever act freely?

**2429 {229} c. Philosophy in the Twentieth Century.** Fall 2014. 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.

**2430 {226} c. Epistemology.** Spring 2015. Matthew Stuart.

What is knowledge, and how do we get it? What justifies us in believing certain claims to be true? Does knowing something ever involve a piece of luck? Is it possible that we lack knowledge of the external world altogether? An introduction to the theory of knowledge, focusing on contemporary issues. Considers various conceptions of what it takes to have knowledge against the background of the skeptical challenge, as well as topics such as self-knowledge and the problem of induction.

**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 3000s {300s} 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} is a helpful preparation.

**3347 c. Morality of War.** Spring 2015. Kristi Olson.

Under what circumstances, if any, is war morally permissible, and what are the moral constraints on what it is permissible to do? Is there a moral difference between *intending* to kill civilians and merely *foreseeing* that they will be killed? When, if ever, is terrorism morally permissible? Topics addressed in this course may include: the doctrine of double effect, the morality of self-defense, the permissibility of torture, noncombatant immunity, and collaborating with wrongdoers.

**3348 c. Metaethics.** Fall 2015. Lawrence H. Simon.

Are there moral facts? Are value judgments like factual judgments in that they admit of truth or falsity? Does morality have a subject matter that exists independently of knowers? In moral thinking, are we constrained to certain conclusions, or can we think anything we like about any (moral) phenomenon and not be open to rational criticism? What kinds of reasons for action does morality give us? Metaethics attempts to understand the metaphysical, epistemological, and psychological presuppositions of our moral discourse and practice.

**3350 c. Theories of Equality.** Spring 2016. Kristi Olson.

What do we really want when we advocate for equality? Should we equalize income or something else? If everybody had enough, would we still have a reason to pursue equality? What should we do in those cases in which individuals are responsible, through their choices, for having less? We seek answers to these and other questions by examining theories of equality in contemporary political philosophy. Readings will be drawn from the work of Elizabeth Anderson, G.A. Cohen, Ronald Dworkin, Susan Okin, Michael Otsuka, Derek Parfit, John Rawls, and others.

**[3392 {392} c. Advanced Topics in Environmental Philosophy.** (Same as Environmental Studies 3992 {392}.)]



[3434 {334} c. Free Will.]

[3450 c. Ryle and Dennett.]

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*

Emily C. Briley, *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 should 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 count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail).

### 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 physics courses (completed at Bowdoin) 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

**1082 {82} a - MCSR, INS. Physics of Musical Sound.** Fall 2015. 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.

**1083 a - MCSR, INS. Energy, Physics, and Technology.** Fall 2014. Mark Battle and Madeleine Msall.

How much can we do to reduce the disruptions of the Earth's physical, ecological, and social systems caused by global climate change? How much climate change itself can we avoid? A lot depends on the physical processes that govern the extraction, transmission, storage, and use of available energy. Introduces the physics of solar, wind, nuclear, and hydroelectric power and discusses the physical constraints on their efficiency, productivity, and safety. Reviews current technology and quantitatively analyzes the effectiveness of different strategies to reduce greenhouse gas emissions. Not open to students who have credit for Physics 1140 {104}. (Same as Environmental Studies 1083.)

**1093 {93} a - MCSR. Introduction to Physical Reasoning.** Fall 2014. Dale Syphers.

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 2014. Mark Battle and Karen Topp. Spring 2015. 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 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 2014. Thomas Baumgarte. Spring 2015. The Department.

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. Laboratory work (three hours per week) includes 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. Spring 2015. 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 2014. 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 2015. 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 time-

independent 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 2015. 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.** Every other spring. Spring 2016. 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.** Every other fall. Fall 2014. Madeleine Msall.

An introduction to the motion and propagation of sound waves. Covers selected topics related to normal modes of sound waves in enclosed spaces, noise, acoustical measurements, the ear and hearing, phase relationships between sound waves, and many others, providing a technical understanding of our aural experiences.

Prerequisite: Physics 1140 {104} or permission of the instructor.

**2250 {251} a. Physics of Solids.** Every other spring. Spring 2016. The Department.

Solid state physics describes the microscopic origin of the thermal, mechanical, electrical, and magnetic properties of solids. Examines trends in the behavior of materials and evaluates the success of classical and semi-classical solid state models in explaining these trends and in predicting material properties. Applications include solid state lasers, semiconductor devices, and superconductivity. Intended for physics, chemistry, or earth and oceanographic science majors with an interest in materials physics or electrical engineering.

Prerequisite: Physics 1140 {104} or permission of the instructor.

**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. Thomas Baumgarte.

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.** Every other fall. Fall 2015. 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 2014. Stephen Naculich.

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 2015. 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.** Every other fall. Fall 2015. 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.** Every other spring. Spring 2016. 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 2014. 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.

**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.

## PSYCHOLOGY

Louisa M. Slowiaczek, *Department Chair*

Donna M. Trout, *Senior Department Coordinator*

*Professors:* Barbara S. Held, Samuel P. Putnam, Louisa M. Slowiaczek, Richmond R. Thompson (Neuroscience)

*Associate Professors:* Suzanne B. Lovett†, Paul E. Schaffner\*\*

*Assistant Professors:* Erika M. Nyhus (Neuroscience), Hannah E. Reese, Zachary K. Rothschild

*Visiting Faculty:* 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 254–255). 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 Psychology 2750 {275}, or 2775 {280}, but not both, may count toward the two-course laboratory option. No more than one course from among Psychology 3010 {320}, 3011 {321}, and 3013 {323} may count toward the two-advanced-course option. Similarly, no more than one course from among Psychology 3050 {315}, 3051 {316}, and 3055 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 prior to any course numbered 2700 or above {260 and above}. Psychology 2520 {252} must be taken concurrently with or prior to any laboratory or advanced courses (numbered 2700 to 3999). 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.

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, a course must be taken for a standard letter and a grade of C- or better must be earned. 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) 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 159–172.

#### **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.** Every fall. Samuel P. Putnam. Spring 2015. 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 2014. Katherine D. O'Doherty.

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. Concepts 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 are 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.** Fall 2014. 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. Zachary K. Rothschild.

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 spring. 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}.

**2060 b. Introduction to Cognitive Neuroscience.** Every fall. Erika M. Nyhus.

An introduction to the neuroscientific study of cognition. Topics surveyed include the neural bases of perception, attention, memory, language, executive function, and decision making. In covering these topics, draws on evidence from brain imaging (fMRI, EEG, MEG), transcranial magnetic stimulation, electrophysiology, and neuropsychology. Also considers how knowledge about the brain constrains our understanding of the mind.

Prerequisite: Psychology 1101 {101} or placement above Psychology 1101 {101}.

**2510 {251} b. Research Design in Psychology.** Every fall. Louisa M. Slowiaczek. Every spring. Erika M. Nyhus.

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 2014. Zachary K. Rothschild. Spring 2015. Katherine D. O'Doherty.

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.]**

**2725 b. Laboratory in Clinical Psychology.** Spring 2015. Hannah E. Reese.

An overview and analysis of the diverse research methods employed by clinical psychologists. Through reading, analysis, and hands-on experience students gain an understanding of the relative merits of various approaches to understanding the nature and treatment of mental disorders. Major topics include clinical interviewing and assessment, information-processing approaches to understanding psychopathology, and the principles of behavior change. Class participation culminates with the design and conduct of an original research project.

Prerequisite: Psychology 2510 {251}, and previous credit or concurrent registration in Psychology 2520 {252}.

**2730 {274} b. Laboratory in Group Dynamics.** Fall 2014. 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} or 2030 {212}; 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: one of the following: Psychology 2050 {218}, 2060, or Biology 2135 {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.** Every fall. 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 use these methods to study aspects of human cognition including perception, attention, memory, language, problem solving, reasoning, and decision making.

Prerequisite: one of the following: Psychology 2040 {216}, or 2050 {218}, 2060 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 2014. 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}, and Psychology 2510 {251} and 2520 {252}.

**3020 {309} b. Psychotherapy, Psychology, and Philosophy.** Fall 2014. 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.** Fall 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}.

**3035 b. Existential Social Psychology.** Every spring. Zachary K. Rothschild.

An examination of how human concerns about death, meaning, isolation, and freedom influence and motivate a wide array of human behavior. Readings and discussions address empirical research on different theories of human motivation (e.g., terror management, meaning maintenance, attachment, compensatory control, and self-determination) that enrich our understanding of topics such as intergroup conflict, religious belief, prosocial behavior, interpersonal relationships, and materialism.

Prerequisite: Psychology 2030 {212} 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 2135 {213}; one of the following: Psychology

## COURSES OF INSTRUCTION

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 2015. 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}.

**3055 a. Neurocognitive Neuroscience of Memory.** Every spring. Erika M. Nyhus.

An advanced discussion of recent empirical and theoretical approaches to understanding the cognitive neuroscience of memory. Readings and discussions address empirical studies, using neuroimaging methods. Topics include hippocampal and cortical contributions to memory encoding and retrieval and the effect of genetic variability, drugs, emotions, and sleep on memory.

Prerequisite: One of the following: Psychology 2040 {216}, 2050 {218}, 2060, or Biology 2135 {213}; and Psychology 2510 {251} or 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

Robert G. Morrison, *Department Chair*

Lynn A. Brettler, *Department Coordinator*

*Professors:* Jorunn J. Buckley, John C. Holt\*\* (Asian Studies)

*Associate Professors:* Robert G. Morrison, Elizabeth A. Pritchard

*Assistant Professor:* Todd Berzon

*Visiting Faculty:* Carmen Wickramagama

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 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 159–172.

**1014 {14} c. Heresy and Orthodoxy.** Fall 2014. Todd Berzon.

[1015 {15} c. **Religion, Violence, and Secularization.**]

**1017 {16} c. Christian Sexual Ethics.** Spring 2015. Elizabeth Pritchard (Same as Gay and Lesbian Studies 1016 {16} and Gender and Women's Studies 1017 {17}.)

## Introductory Courses

**1101 {101} c - ESD. Introduction to the Study of Religion.** Fall 2014. John Holt. Spring 2015. Todd Berzon.

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.

**1125 {125} c - ESD, IP. Entering Modernity: European Jewry.** Fall 2015. Susan Tananbaum.

Explores Jewish life through the lenses of history, religion, and ethnicity and examines the processes by which governments and sections of the Jewish community attempted to incorporate Jews and Judaism into European society. Surveys social and economic transformations of Jews, cultural challenges of modernity, varieties of modern Jewish religious expression, political ideologies, the Holocaust, establishment of Israel, and American Jewry through primary and secondary sources, lectures, films, and class discussions. (Same as History 1180 {125}.)

**1142 {142} c. Philosophy of Religion.** Spring 2016. Scott Sehon.

Does God exist? Can the existence of God be proven? Can it be disproven? Is it rational to believe in God? What does it mean to say that God exists (or does not exist)? What distinguishes religious beliefs from non-religious beliefs? What is the relation between religion and science? Approaches these and related questions through a variety of historical and contemporary sources, including philosophers, scientists, and theologians. (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, Meshell 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}*.)

**2204 {204} c. Science, Magic, and Religion.** Spring 2015. Dallas Denery.

Traces the origins of the scientific revolution through the interplay between late-antique and medieval religion, magic, and natural philosophy. Particular attention is paid to the conflict between paganism and Christianity, the meaning and function of religious miracles, the rise and persecution of witchcraft, and Renaissance hermeticism. Note: This course fulfills the pre-modern requirement for history majors. (Same as *History 2040 {204}*.)

Prerequisite: *History 1140 {110}* or permission of the instructor.

**2207 {207} c - ESD. Modern Judaism.** Spring 2015. Robert G. Morrison.

Investigates the origins, development, and current state of modern Judaism. Covers the emergence of modern movements such as Reform, Conservative, Orthodox, and Hasidic Judaism and explores these movements' debates over Jewish law and leadership and the connection of these debates to important Jewish texts. Concludes by examining contemporary questions such as Zionism, gender, sexuality, and the place of Jews in a multi-religious country.

**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.]

**2215 {215} c - ESD. The Hebrew Bible in Its World.** Fall 2014. Todd Berzon.

Close readings of chosen texts in the Hebrew Bible (i.e., the Old Testament), with emphasis on its Near Eastern religious, cultural, and historical context. Attention is given to the Hebrew Bible's literary forerunners (from c. 4000 B.C.E. onwards) to its "successor," The Dead Sea Scrolls (c. 200 B.C.E. to 200 A.C.E.). Emphasis on creation and cosmologies, gods and humans, hierarchies, politics, and rituals.

**2216 {216} c - ESD. The New Testament in Its World.** Spring 2015. Todd Berzon.

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.

**2219 {219} c. - ESD, IP. Religion and Fiction in Modern South Asia.** Spring 2015. Carmen Wickramagamage.

Explains the nexus between religion and society in modern South Asia proffered via the prism of South Asian literature in English. Confined to prose fiction, considering its tendency to attempt approximations of reality. Interrogates how ideas of religion and ideas about religion manifest themselves in literature and affect understanding of south Asian religions among its readership. Does not direct students to seek 'authentic' insights into orthodox or doctrinal



religion in the literary texts but to explore the tensions between “textual” religion and everyday “lived reality” in South Asia. (Same as Asian Studies 2550 {219}.)

**2220 {220} c - IP. Hindu Literatures.** (Same as Asian Studies 2552 {240}.)

**2221 {221} c - IP. Hindu Cultures.** Fall 2016. 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 2014. 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 2015. 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 Vyuha* (“Discourse on the ‘Pure Land’”), the *Vajracchedika Sutra* (the “Diamond-Cutter”), the *Prajnaparamita-hrdaya 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 Asian Studies 2551 {223}.)

**2232 {232} c - IP. Approaches to the Qur’an.**

**2247 {247} c - ESD, IP. Global Pentecostalism: The Roots and Routes of Twentieth-Century Christianity.** (Same as Africana Studies 2235 {242} and Gender and Women’s Studies 2229.)

**2250 {250} c. Modern Christian Thought.** Spring 2015. Elizabeth Pritchard.

Acquaints students with the major figures and trajectories of Christian religious thought since the Enlightenment. Gives attention to the inwardization of religion, the issue of authority, the claims of Christian supremacy, the association of religion and feeling, and the relationship between religion, ethics, and politics. Of particular interest are the critiques of religious knowledge claims, subjectivity, and patriarchy.

**2251 {251} c. Christianity.** Fall 2014. Elizabeth Pritchard.

An introduction to the diversity and contentiousness of Christian thought and practice. This diversity is explored through analyses of the conceptions, rituals, and aesthetic media that serve to interpret and embody understandings of Jesus, authority, body, family, and church. Historical and contemporary materials highlight not only conflicting interpretations of Christianity, but also the larger social conflicts that these interpretations reflect, reinforce, or seek to resolve.

**2252 {252} c. Marxism and Religion.** Fall 2017. 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.** Fall 2014. 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}.)

[2258 c - ESD. Citizenship and Religion in America.]

[2259 {259} c. Religious Toleration and Human Rights.]

**2271 {271} c - ESD. Spirit Come Down: Religion, Race, and Gender in America.** Spring 2015. Judith Casselberry.

Examines the ways religion, race, and gender shape people's lives from the nineteenth century into contemporary times in America, with particular focus on black communities. Explores issues of self-representation, memory, material culture, embodiment, and civic and political engagement through autobiographical, historical, literary, anthropological, cinematic, and musical texts. (Same as Africana Studies 2271 {271} and Gender and Women's Studies 2270 {270}.)

**2275 {275} b - ESD. Comparative Mystical Traditions.** Fall 2014. Jorunn J. Buckley.

Taking a clue from the Greek verb behind the term "mysticism," "to see inwardly" (*muein*), studies primary texts—some "classical," others less well known—with a specific focus on Jewish, Hellenistic, Christian, and Islamic materials. Avoiding "universal" ideas about mystical traditions, places mystical aspects within their specific religious traditions. Focuses on the language(s) of mysticism: how are mystical techniques, training regimens, and experiences expressed in their respective religious-cultural frameworks? Mysticism is seen as separate from modern "self-help" therapies and other ego-enhancing systems. Religious-political aspects of mysticism are treated, especially with respect to certain types of medieval European Christian mysticism.

**2277 c - ESD, IP. Women in South Asia: Images and Experiences.** Spring 2015. Carmen Wickramagamage.

South Asia undoubtedly presents a paradox with regard to women's status with its veneration of Devi [Goddess] and 'Mother' and endorsement of strong political women, on the one hand, and spectacular, headline-grabbing violence against women on the other. What are the factors that give rise to this seeming paradox? Drawing on a variety of sources, literary and non-literary (from literary and analytical pieces to field reports, documentaries, interviews, personal narratives and oral testimonies), the course introduces students to the forces—cultural and material—that shape women's life-experiences in South Asia. (Same as Asian Studies 2700 and Gender and Women's Studies 2198.)

**2285. Nation, Religion, and Gender in Indian Epics.** Fall 2014. Sree Padma Holt.

Studies the Indian state-sponsored televised serials of two great Indian epics, the *Ramayana* and the *Mahabharata*, and examines their overwhelming popularity among the general public. Explores issues surrounding the concept of Indian nationhood and its interrelation with the Hindu religion and the position of women in Indian society. Readings include scholarly translations and retellings of the *Ramayana* and the *Mahabharata*; viewings of selected episodes of the televised epics are followed by engagement with the public debate through published online media and other sources. One-half credit. (Same as Asian Studies 2650 and Gender and Women's Studies 2203.)

[2288 c - IP. Religious Culture and Political Change in Southeast Asia.]

**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.

**3333 {333} c. Islam and Science.** Spring 2015. Robert Morrison.

Surveys the history of science, particularly medicine and astronomy, within Islamic civilization. Pays special attention to discussions of science in religious texts and to broader debates regarding the role of reason in Islam. Emphasizes the significance of this history for Muslims and the role of Western civilization in the Islamic world. Students with a sufficient knowledge of Arabic may elect to read certain texts in Arabic.

**3390 {390} c. Theories about Religion.** Fall 2014. Robert Morrison.

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.

## ROMANCE LANGUAGES

Elena Cueto Asín, *Department Chair*

Kate Flaherty, *Department Coordinator*

*Associate Professors:* Elena Cueto Asín, Nadia V. Celis, Charlotte Daniels, Katherine Dauge-Roth, Gustavo Faverón Patriau, Arielle Saiber, Hanétha Vété-Congolo, Enrique Yepes

*Assistant Professors:* Margaret Boyle, Allison Cooper, Carolyn Wolfenzon

*Senior Lecturers:* Davida Gavioli, Anna Rein\*, Eugenia Wheelwright

*Visiting Faculty:* Erin Curren, Sandro Sechi, Esmeralda Ulloa

*Teaching Fellows:* Angela Lavecchia, Tatiana Le Mestric, Cristian Nogales Tamayo, Benjamin Vinel

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

## COURSES OF INSTRUCTION

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 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 2014. Erin Curren.

A study of the basic forms, structures, and vocabulary in the context of the French-speaking world. Emphasis on the four communicative skills: reading, writing, listening, and speaking. Three class hours per week and one weekly conversation session with teaching assistants. Primarily open to first- and second-year students.

**1102 {102} c. Elementary French II.** Every spring. Spring 2015. Erin Curren.

A study of the basic forms, structures, and vocabulary in the context of the French-speaking world. Emphasis on the four communicative skills: reading, writing, listening, and speaking. Three class hours per week and one weekly conversation session with French teaching fellows.

Prerequisite: French 1101 {101} or the equivalent.

**2203 {203} c. Intermediate French I.** Every fall. Fall 2014. Erin Curren.

Vocabulary development and review of basic grammar, which are integrated into more complex patterns of written and spoken French. Active use of French in class discussions and conversation sessions with French teaching fellows. Three class hours per week and one weekly conversation session.

Prerequisite: French 1102 {102} or placement in French 2203.

**2204 {204} c. Intermediate French II.** Every spring. Spring 2015. Erin Curren.

Continued development of oral and written skills; course focus shifts from grammar to reading. Short readings form the basis for the expansion of vocabulary and analytical skills. Active use of French in class discussions and conversation sessions with French teaching fellows. Three class hours per week and one weekly conversation session.

Prerequisite: French 2203 {203} or placement in French 2204.

## COURSES OF INSTRUCTION

**2305 {205} c. Advanced French through Film.** Every fall. Fall 2014. Charlotte Daniels and Katherine Dauge-Roth.

An introduction to film analysis. Conversation and composition based on a variety of contemporary films from French-speaking regions. Grammar review and frequent short papers. Emphasis on student participation, including a variety of oral activities. Three hours per week plus regular viewing sessions for films and a weekly conversation session with French teaching fellows.

Prerequisite: French 2204 {204} or placement in French 2305.

**2407 {207} c - ESD, IP. Francophone Cultures.** Every fall. Fall 2014. 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. Increases cultural understanding prior to study abroad in French-speaking regions. (Same as Africana Studies 2407 {207} and Latin American Studies 2407 {206}.)

Prerequisite: French 2305 {205} or higher, placement in French 2400 level, or permission of the instructor.

**2408 {208} c - ESD, IP. Contemporary France through the Media.** Every spring. Spring 2015. 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, placement in French 2400 level, 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 2014. Katherine Dauge-Roth.

Introduces students to the literary traditions 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 2400 level, or permission of the instructor.

**2410 {210} c - IP. Introduction to the Study and Criticism of Modern French Literature.** Every spring. Spring 2015. Charlotte Daniels.

Introduces students to the literary traditions of France from 1789 to the present. Focuses on major authors and literary movements in historical and cultural context.

Prerequisite: French 2305 {205} or higher, placement in French 2400 level, or permission of the instructor.

**2411 {211} c - ESD, IP. Introduction to the Study and Criticism of Francophone Literature.** Every spring. Spring 2015. 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, placement in French 2400 level, 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.

**[3203 {323} c. Murder, Mystery, and Mayhem: The *fait divers* in French Literature and Film.]**

**[3206 {326} c. Body Language: Writing Corporeality in France.]**

**3207 {327} c. Love, Letters, and Lies.** Fall 2014. 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, Laclous, 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.]**

**[3210 {325} c. Witches, Monsters, and Demons: Representing the Occult in Early Modern France.]**

**[3211 c. Bringing the Female Maroon to Memory: Female Marronage and Douboutism in the Caribbean.]**

**French 3212 c. Eyes on the Prize: Promoting French Culture in the Age of the New Millennium.** Fall 2014. Hanétha Vété-Congolo.

Since the eighteenth century, France has developed a seemingly endless list of literary prizes, the Prix Goncourt being the most famous. Each prize represents an official consecration meant to underline the writer’s unquestionable worth, but with over 3,000 literary prizes awarded each year, one wonders if it is really the best writings that are acknowledged? In recent years, scandals have erupted, with accusations of influence peddling by publishers. What does this teach us about French culture and society? What is the relation between literary prizes and the promotion of French culture more broadly? In the context of globalization, what political statement is being made? Immigration has considerably changed the face of France. How does the culture of literary prizes take this into account? Students read four recent prizewinners, each of which created controversy that directly addresses the questions above. Primary readings include works by Houellbecq, Le Clezio, Paule Constant, and Alain Mabanckou.

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 2014. Davida Gavioli, Crystal Hall, and Sandro Sechi.

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 2015. 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 2015. 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 2014. 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 2015. Allison Cooper.

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 2014. 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 2015. 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. Conducted in Italian.

Prerequisite: Italian 2305 {205} or permission of the instructor.

**2500 c - IP. World Science Fiction.** Spring 2015. Arielle Saiber.

Explores the local, global, and universal natures of the speculative genre of science fiction (SF) from the early twentieth century through the present. Highlights works from the Golden Age (late 1930s-'50s), the New Wave of the 1960s and '70s, cyberpunk in the 1980s, and today's various sub-genres and cross-over incarnations. Approaches the genre as a mode of thought-experimentation and world-building that problematizes actual and possible political, cultural, natural, human, and techno-scientific realities. Among the themes included are the human-machine interface, environmental apocalypse, the alien, and time travel. Readings include short stories from nearly every continent (a number of which will be accompanied by a film or other media) and literary criticism. Integral to the course is an exhibition of Latin American SF at the Bowdoin College Museum of Art and a number of conversations with writers, artists, filmmakers, and scholars of SF from around the world. Counts for the major in English, but not for the Italian minor or romance languages major. (Same as English 2901).

**[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.** (Same as Cinema Studies 2553 {253}.)]

**[3009 {309} c. Introduction to the Study and Criticism of Medieval and Early Modern Italian Literature.]**

**3010 {310} c. Women of Invention: Contemporary Women's Writing in Italian.** Spring 2015. Davida Gavioli.

Focuses on the development of narrative and theatrical prose written by women in Italy over the course of the twentieth century and on the cultural and social issues raised by their narratives in the context of the dramatic changes that the country was undergoing. These works lead us progressively through an examination of Italy at the turn of the last century, of the image of the ideal female created during the fascist era, of the condition of women in postwar Italy, of the dramatic impact that the feminist movement had on women writing in the 1960s and 1970s and, finally, of the experimentation in theme, style, and technique that has marked the most recent generation of women writers. Students are encouraged to reflect on the relationship between literature written by women and the social and cultural context in which it is produced. Readings include novels and short stories by, among others, Sibilla Aleramo, Natalia Ginzburg, Alba De Cespedes, Dacia Maraini, and Grazia Verasani, and the theatre of Franca Rame. Conducted in Italian.

Prerequisite: Italian 2408 {208} or permission of the instructor.

**[3016 {316} c. Red, White, Green and . . . Noir: Reading Italy through Crime Fiction.]**

**3020 {320} c. Dante's *Commedia*.** Fall 2014. Arielle Saiber.

One of the greatest works of literature of all times, Dante's *Divine Comedy* leads us through the torture-pits of Hell, up the steep mountain of Purgatory, to the virtual, white-on-white zone of Paradise, and then back to where we began: our own earthly lives. Accompanies Dante on his allegorical journey, armed with knowledge of Italian culture, philosophy, politics, religion, and history. Pieces together a mosaic of medieval Italy, while developing and refining abilities to read, analyze, interpret, discuss, and write about both literary texts and critical essays. Conducted in Italian.

Prerequisite: Italian 2408 {208} or permission of the instructor.

**[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 2014. Esmeralda Ulloa.

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 2015. 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.

**1103 c. Accelerated Elementary Spanish.** Spring 2015. Genie Wheelwright.

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 Spanish 1101–1102 (101–102) sequence. Study of the basic forms, structures, and vocabulary. Emphasis on listening comprehension and spoken Spanish. By placement or permission of instructor, for students with an advanced knowledge of a romance language or who would benefit from a review in the beginner's stages.

Prerequisite: Placement in Spanish 1103 or permission of the instructor.

**2203 {203} c. Intermediate Spanish I.** Every fall. Fall 2014. Genie Wheelwright.

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 2014. Nadia V. Celis. Spring 2015. Gustavo Faverón Patriau and Enrique Yepes.

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 2014. Elena Cueto Asín and Enrique Yepes. Spring 2015. Nadia V. Celis and Carolyn Wolfenzon.

Studies 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 2014. Gustavo Faverón Patriau. Spring 2015. Elena Cueto Asín 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 2014. Nadia V. Celis and Carolyn Wolfenzon. Spring 2015. Gustavo Faverón Patriau.

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.]** (Same as English 2570 {250} and Latin American Studies 2005 {250}.)

**2515 c - IP. Reading *Don Quixote*.** Spring 2015. Margaret Boyle.

Provides a semester immersion in the reading, words, and libraries of *Don Quixote* and its author Miguel de Cervantes. Explores the material culture of early modern Spain as well as its afterlife and resurgence into the digital world in juxtaposition with close reading of the novel. Provides an introduction to manuscript and book culture through intensive collaboration with Bowdoin College special collections. Course discussion, reading, and writing in English. Students wishing to take the course for credit in Spanish should enroll in Spanish 3115.

**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.

[3002 {302} c. **The Idea of Latin America.** (Same as Latin American Studies 3202 {302}.)]

[3005 {305} c - ESD. **The Making of a Race: Latino Fictions.** (Same as English 2571 {221} and Latin American Studies 3005 {305}.)]

**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.

**3114 c. Fighting Fascism: The Spanish Civil War and Cinema.** Spring 2015. Elena Cueto Asín.

Takes the Spanish Civil War as a case to study the way in which war in its many facets has been represented in cinema from the 1930s to present. Examines how the subject of war is taken up by different genres: newsreel, documentary, adventure, drama, horror, fantasy, and romantic comedy. Analyzes films from Spain alongside examples from the United States, Britain, France, and Mexico, paying special attention to how the political dimensions of the Spanish war, in the international context of the fight against Fascism, are subject to different interpretations of the conflict's significance for history. Conducted in English. Writing assignments to be completed in Spanish.

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

**3115 c. Reading *Don Quixote*.** Spring 2015. Margaret Boyle.

Provides a semester immersion in the reading, words, and libraries of *Don Quixote* and its author Miguel de Cervantes. Explores the material culture of early modern Spain as well as its afterlife and resurgence into the digital world in juxtaposition with close reading of the novel. Provides an introduction to manuscript and book culture through intensive collaboration with Bowdoin College special collections. Course discussion in English, all writing and supplementary reading in Spanish.

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.

[3117 {317} c. **Almodóvar, Before and After: Reading Spanish Film.**]

[3218 {318} c. **A Journey around Macondo: García Márquez and His Contemporaries.** Spring 2015. Nadia Celis.

Studies the main topics, techniques, and contributions of Colombian Nobel Prize winner Gabriel García Márquez as presented in *One Hundred Years of Solitude*. Explores the actual locations, social, cultural and literary trends that inspired the creation of Macondo, the so-called "village of the world" where the novel takes place, and the universal themes to which this imaginary town relates. Contemporary authors include Fuenmayor, Cepeda Samudio, and Rojas Herazo. (Same as Latin American Studies 3218.)

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.

**3219 {319} c. Letters from the Asylum: Madness and Representation in Latin American Fiction.** Fall 2014. Gustavo Faverón Patriau.

Explores the concept of madness and the varying representations of mental illness in twentieth-century Latin American fiction. Readings include short stories and novels dealing with the issues of schizophrenia, paranoia, and psychotic behavior by authors such as Horacio Quiroga, Jorge Luis Borges, Cristina Rivera Garza, and Carlos Fuentes. Also studies the ways in which certain authors draw from the language and symptoms of schizophrenia and paranoia in order to construct the narrative format of their works and in order to enhance their representation of social, political, and historical conjunctures. Authors include Diamela Eltit, Ricardo Piglia, César Aira, and Roberto Bolaño. (Same as Latin American Studies 3219.)

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.

**3223 {323} c. The War of the (Latin American) Worlds.** Fall 2014. Carolyn Wolfenzon.

Discusses the historical, social, and political consequences of the clash between tradition and modernity in Latin America during the nineteenth and twentieth centuries as seen through novels, short stories, and film. Particular attention given to the ways in which the processes of modernization have caused the coexistence of divergent “worlds” within Latin American countries. Analyzes different social and political reactions to these conflictive realities, focusing on four cases: the Mexican Revolution, the Cuban Revolution, the dictatorship of Augusto Pinochet in Chile, and Andean insurgencies in Perú. Authors may include José Martí, Simón Bolívar, Jorge Luis Borges, Roberto Bolaño, Mario Vargas Llosa, Cromwell Jara, Elena Poniatowska, Reinaldo Arenas, Juan Rulfo, and Gabriel García Márquez, among others. (Same as Latin American Studies 3223 {323}.)

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.

**[3226 {326} c. A Body “of One’s Own”: Latina and Caribbean Women Writers.** (Same as Gender and Women’s Studies 3326 {326} and Latin American Studies 3226 {326}.)]

**3232 {332} c. Poetry and Social Activism in Latin America.** Fall 2014. Enrique Yepes.

Considers the aesthetic and thematic problems posed by socially committed poetry during the last 100 years in Spanish America, from the avant-garde to the present. Authors include Mistral, Vallejo, Neruda, Guillén, Cardenal, Belli, and Dalton, among others. (Same as Latin American Studies 3232 {332}.)

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.

**[3237 {337} c. Hispanic Short Story.** (Same as Latin American Studies 3237 {337}.)]

**[3239 {339} c. Borges and the Borgesian.** (Same as Latin American Studies 3239 {339}.)]

**[3243 {343} c. Imaginary Cities/Real Cities in Latin America.** (Same as Latin American Studies 3243 {343}.)]

**[3244 c. Romantic Spain.]**

COURSES OF INSTRUCTION

[3245 {345} c. **Ecological Thought in Latin American Literature.** (Same as Environmental Studies 2485 {285} and Latin American Studies 3245 {345}.)]

[3246 {346} c. **Dressing and Undressing in Early Modern Spain.** (Same as Gender and Women's Studies 3316 {316}.)]

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

Laura Henry, *Department Chair*

Tammis L. Donovan, *Department Coordinator*

*Visiting Faculty:* Michael Klimov, 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 page 222.

## 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 159–172.

**1022 {22} c. “It Happens Rarely, Maybe, but It Does Happen”—Fantasy and Satire in Russia and East Central Europe.** Every other fall. Fall 2014. Kristina Toland.

## Courses in Russian for Majors and Minors

**1101 {101} c. Elementary Russian I.** Every fall. Fall 2014. 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.** Every spring. Spring 2015. 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 2014. Michael Klimov.

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.** Every spring. Spring 2015. Michael Klimov.

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 2014. Michael Klimov.

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 2016.

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 Indo-European 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.]**

**3100 {310} c. Modern Russian Literature.** Spring 2015. 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 2016. 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 two-semester 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.]**

**2218 {218} c - IP, VPA. Smashing the Fourth Wall: Russian Theater Arts in the Twentieth and Twenty-First Centuries.** Spring 2015. 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 Blok, Vladimir Mayakovsky, Nikolai Erdman, Mikhail Bulgakov, Daniil Kharms, Alexandr Vampilov, Liudmila Petrushevskaya, 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.]**

**2220 {220} c - IP. Nineteenth-Century Russian Literature.** Spring 2016. The Department.

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.

An interdisciplinary examination of Russian culture surveying the development of literary and visual arts from the 1900s through 2010s. Focuses on the themes of the individual vis-à-vis society and on gender politics, using literary and cinematic texts. Topics include “the woman question” in Russia, scientific utopias, eternal revolution, individual freedom versus collectivism, conflict between the intelligentsia and the common man, the “new Soviet woman,” nationalism, the thaw, stagnation of the 1970s, sexual liberation, and the search for post-Soviet identity. Explores the evolution of literary genres (short story and novella) and film techniques in relation to socio-political and cultural developments, paying particular attention to questions of the interrelationship between arts, audience and critic, and the politics of form. Weekly film viewings. *Note:* Fulfills the film theory requirement for Cinema Studies minors. (Same as Film Studies 2221 and Gender and Women’s Studies 2510 {220}.)

**2223 {223} c. Dostoevsky and the Novel.** Spring 2015. The Department.

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}.)

**2225 c - IP. Lev Tolstoy, His Life and Work.** Spring 2014. Kristina Toland.

Introduces the important works of Lev Tolstoy. Focuses on the artistic, moral, and philosophical concerns of the author within the context of his select short stories and novels, as well as theoretical, religious, and political texts. By focusing on autobiographical themes traced from his fictionalized autobiography *Childhood* through *A Confession*, examines the interconnectedness of the life and art of one of the greatest novelists in the Russian literary canon. All course content is in English.

## SOCIOLOGY AND ANTHROPOLOGY

Susan E. Bell, *Department Chair*

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, Janet K. Lohmann, 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 off-campus 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.

## COURSES OF INSTRUCTION

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.

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. Courses that count toward the major or minor must be taken for regular letter grades (not Credit/D/Fail).

### 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.

### 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 159–172.

**1010 {10} b. Racism.** Fall 2014. Roy Partridge. (Same as Africana Studies 1010 {10}.)

**1026 b. Landscape, Energy, and Culture.** Fall 2014. Shaun Golding. (Same as Environmental Studies 1026.)

### Introductory, Intermediate, and Advanced Courses

**1101 {101} b. Introduction to Sociology.** Fall 2014. Shaun Golding and the Department. Spring 2015. Marcos Lopez.

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 2015. 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 2014. 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.

**2204 {204} b. Families: A Comparative Perspective.** Fall 2014. Nancy Riley.

Examines families in different societies. Issues addressed include definition and concept of the “family”; different types of family systems; the interaction of family change and other social, economic, and political change; the relationships between families and other social institutions; the role of gender and age in family relationships; and sources and outcomes of stability, conflict, and dissolution within families. (Same as Gender and Women’s Studies 2204 {204}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

**[2206 {206} b - ESD. Sociology of Education.** (Same as Education 2206 {206}.)]

**[2208 {208} b. Race and Ethnicity.** (Same as Africana Studies 2208 {208} and Latin American Studies 2708 {278}.)]

**2112 {212} b. Gender and Crime.** Spring 2015. Janet Lohmann.

Examines how gender intersects with the understanding of crime and the criminal justice system. Gender is a salient issue in examining who commits what types of crimes, who is most often victimized, and how the criminal justice system responds to these victims and offenders. Students explore the social context of crime, as well as how the correctional system and social policy are affected by the issue of gender. (Same as Gender and Women’s Studies 2112 {212}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

**2220 {220} b - ESD. “The Wire”: Race, Class, Gender, and the Urban Crisis.** Spring 2015. Brian Purnell.

Postwar US 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. Uses David Simon’s epic series *The Wire* as a critical source on postindustrial urban life, politics, conflict, and economics, to cover 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 2015. 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.** (Same as Environmental Studies 2332 {222} and Gender and Women's Studies 2224 {224}.)]

**2223 {223} b - ESD. Cultural Interpretations of Medicine.** Fall 2014. Susan Bell.

Explores a series of topics in health studies from the perspectives of the humanities and social sciences: medical ethics, the development and use of reproductive technologies, relationships between doctors and patients, disability, public health, and the experience of illness. Encourages reflection about these topics through ethnographies, monographs, novels, plays, poetry, and visual arts. (Same as Gender and Women's Studies 2223 {223}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

[**2224 {224} b - IP. Global Health Matters.**]

**2225 b - ESD, IP. Global Politics of Work.** Fall 2014. Marcos Lopez.

Globally, a large portion of life is devoted to work. The type of work that people perform reflects global inequalities. Introduces the history of wage-labor and theoretical concepts used to understand the shifting dimensions of work and its implication for the global workforce. Particular focus on labor in the US, Latin America, and Asia; manufacturing and service work; migration and labor trafficking; the body as the site for transforming labor in wage-labor; and forms of labor resistance. (Same as Latin American Studies 2725.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}.

[**2240 {240} b - ESD. Social Class in Popular Culture.**]

**2250 {250} b - ESD. Epidemiology: Principles and Practices.** Spring 2015. Nancy Riley.

Introduces epidemiology, the study of the patterns and influences of disease (and health) in populations and communities. Focusing on the social, political, and economic influences and consequences of patterns of disease and death, considers how these patterns reflect and affect the demographics, social structure, economy, and culture of societies and how societies mobilize to combat disease and promote health. Focuses particularly on the role of socioeconomic inequality—both within and between countries—in how diseases spread and are managed.

Prerequisite: Sociology 1101 {101}.

**2253 {253} b - ESD. Constructions of the Body.** Fall 2014. Susan Bell.

Explores the body as a reflection and construction of language, a source of metaphor, and a political and social "space." Cases are drawn from art, sports, medicine, performance, work, and body aesthetics. Draws from and compares theories of the body in sociology, women's studies, and gay, lesbian, and transgender studies. (Same as Gay and Lesbian Studies 2253 {253} and Gender and Women's Studies 2253 {253}.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}, or permission of the instructor.

**[2256 b - ESD. Visual Studies of Social Life.]****2320 b - ESD. Latinas and Latinos in the United States.** Spring 2015. Marcos Lopez.

Latinas/os are the largest minority group in the United States. Analyzes the Latina/o experience in the United States, with special focus on migration, incorporation, and strategies for economic and social empowerment. Explores diversity within the US Latina/o community by drawing on comparative lessons from Cuban-American, Puerto Rican, Dominican, Chicano/Mexican, and Central American patterns of economic participation, political mobilization, and cultural integration. (Same as Latin American Studies 2720.)

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}, or permission of the instructor.

**[2340 {234} b - ESD. Tractors, Chainsaws, Windmills, and Cul-de-Sacs: Natural Resource-Based Development in Our Backyard.** (Same as Environmental Studies 2340 {234}.)]**2350 b - MCSR. Applied Demography for Planning and Policy Analysis.** Spring 2015. Shaun Golding.

An introduction to basic demographic techniques for use in applications related to public- and private-sector planning and policy situations. Students gain skills and analytic insights useful for understanding research, planning, and policy development in government, nonprofits, healthcare, and business. Learning and using Geographic Information Systems (GIS) is a central component of the course. Also includes readings, lectures, discussions, laboratory sessions, homework assignments, and a final project.

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}, or permission of the instructor.

**[2370 {237} b. Immigration and the Politics of Exclusion.** (Same as Latin American Studies 2746 {246}.)]**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 2015. Susan Bell.

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.

**3300 b. Reproductive Health and Politics.** Fall 2014. Nancy Riley.

Taking account of the interrelationship of health and politics, examines how community, national, and international policies and social structures (such as gender, race, economy, or health care) link local and global politics to influence practices, beliefs, meaning, and outcomes related to reproduction. Topics include birth planning and contraception, new reproductive technologies, fertility and infertility, AIDS, abortion, issues of parenthood, and stratified reproduction.

Prerequisite: Sociology 1101 {101} or Anthropology 1101 {101}; and a sociology course numbered 2000-2969 {200-289}.



[3400 {314} b. **Big Pharma, Big Medicine, and Technoscience.**]

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 159–172.

[1013 {13} b. **Beyond Pocahontas: Native American Stereotypes.**]

1026 b. **The Borderlands of United States Empire: Puerto Rican Histories and Identities.**  
Fall 2014. Melissa Rosario. (Same as Latin American Studies 1026.)

[1027 {27} b. **Understanding Ourselves in the Digital Age.**]

### Introductory, Intermediate, and Advanced Courses

1101 {101} b. **Introduction to Cultural Anthropology.** Fall 2014. Krista Van Vleet. Spring 2015. The Department.

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. 2015. 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 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 are used as source material.

[1138 {138} b - ESD, IP. **Everyday Life in India and Pakistan.** (Same as Asian Studies 1625 {138}.)]

[1150 {102} b. **Introduction to World Prehistory.**]

2010 {201} b. **Anthropological Research.** Spring 2015. 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 2014. 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. Incorporates a significant fieldwork component, including excavations on campus.

Prerequisite: One of the following: Anthropology 1102 {102} or 1150 {102}, Archaeology 1101 {101} (same as Art History 2090 {209}), or Archaeology 1102 {102} (same as Art History 2100 {210}), or permission of the instructor.

**2030 {203} b. History of Anthropological Theory.** Fall 2014. 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.** (Same as Archaeology 2207 {207}.)]**2116 b - ESD, IP. Ordinary Ethics: Value and Action in Everyday Life.** Fall 2014. Greg Beckett.

Focuses on anthropological approaches that treat ethics as a mode of action and value embedded within culture. Treats ethical and moral values as historically, socially, and culturally constituted ways of knowing, thinking, and acting, rather than as universal ideals that we contemplate. Considers how ideas of the right and the good emerge out of everyday social interaction. Explores ethnographic and historical cases from around the world to provide a range of perspectives on ethics, morality, meaning, and action. Also explores contexts in which alternative or competing ethical registers come into contact or conflict. Topics may include: virtue, character, and care; gifts and reciprocity; charity, volunteerism, and affective labor; agency and responsibility; medicine and bioethics; and rights, dignity, and respect.

Prerequisite: Anthropology 1101 {101} or Sociology 1101 {101}, or permission of the instructor.

**[2170 {270} b. Changing Cultures and Dynamic Environments.** (Same as Environmental Studies 2311 {237}.)]**2218 b - ESD. The Anthropology of Social Movements: Theories of Justice, Practices of Becoming.** Fall 2014. Melissa Rosario.

Illuminates the dynamics of contemporary social movements, including those advocating for women and indigenous groups, environmental justice, and postcapitalist economies (that is, economies that are cooperative rather than exploitative). Asks how social movements are spaces of both theorizing and practicing justice. Surveys a range of social theories that propose ways to rethink binaries that structure social life—e.g. mind/body, theory/practice, feeling/thinking. Considers a series of ethnographies from a range of cross-cultural examples in order to identify similarities and differences between them. Authors include: Chela Sandoval, Maple Rasza, J.K. Gibson-Graham, and Jeffrey Juris.

Prerequisite: Anthropology 1101 {101} or Sociology 1101 {101}, or permission of the instructor.

[2227 {227} c - ESD, VPA. **Protest Music.** (Same as Africana Studies 2228 {228} and Music 2292 {227}.)]

[2230 {230} b - ESD. **Language, Identity, and Power.**]

[2245 {245} b - ESD, IP. **We Are Family: Anthropological Understandings of Kinship.**]

**2254 {254} b. Understanding Crisis: Anthropological Perspectives on Emergency.** Fall 2014. Greg Beckett.

Introduces cross-cultural and historical perspectives on crisis. Focuses on the relationship between modern systems of continuity and order and the experience of discontinuity and disorder. Examines the various meanings that communities and individuals give to crises, disasters, and emergencies. Considers a variety of cultural and historical cases from around the world. Topics may include illness and disease, natural disasters, industrial accidents, human insecurity and vulnerability, crises of meaning, law and disorder, social breakdown, state failure, civil war, and military and humanitarian intervention.

Prerequisite: Anthropology 1101 {101} or Sociology 1101 {101}, or permission of the instructor.

[2274 b. **The Borderlands of United States Empire: Puerto Rican Identities and Histories.** (Same as Latin American Studies 2774.)]

[2350 {235} b - ESD. **Not Just Cowboys and Indians: Examining Native Americans in Film and Media beyond Hollywood.** (Same as Cinema Studies 2350 {235}.)]

**2371 {277} b. Children and Youth in Global Perspective.** Spring 2015. Krista Van Vleet.

Explores research on children as a window into issues of individual agency and social, political, and economic inequality in the contemporary world. Children move between families, communities, and nations; claim belonging to divergent communities; create distinct identities; and navigate hierarchies. Highlights the circulation of children as structured by broad relationships of power. Forefronts youth as social actors. Considers culturally specific notions of childhood and methodological and ethical implications of research with children. Topics include adoption, migration, human trafficking, child labor, tourism, and social movements in the Americas, Asia, Oceania, and/or Africa. (Same as Latin American Studies 2771 {277}.)

Prerequisite: Anthropology 1101 {101} or Sociology 1101 {101}, or permission of the instructor.

[2449 {249} b - IP. **Alienation and Repression: The Figure of the Zombie in Haiti and the United States.**]

**2533 {233} b - ESD, IP. Peoples and Cultures of Africa.** Fall 2014. Scott MacEachern.

Introduction to the traditional patterns of livelihood and social institutions of African peoples. Following a brief overview of African geography, habitat, and cultural history, lectures and readings cover a representative range of types of economy, polity, and social organization, from the smallest hunting and gathering societies to the most complex states and empires. Emphasis upon understanding the nature of traditional social forms. Changes in African societies in the colonial and post-colonial periods are examined but are not the principal focus. (Same as Africana Studies 2233 {233}.)

Prerequisite: One course in anthropology or Africana Studies 1101 {101}.

**2572 {272} b - ESD, IP. Contemporary Arctic Environmental and Cultural Issues.** Spring 2015. Susan Kaplan.

Throughout the Arctic, northern peoples face major environmental changes and cultural and economic challenges. Landscapes, icescapes, and seascapes on which communities rely are being transformed, and arctic plants and animals are being affected. Many indigenous groups see these dramatic changes as endangering their health and cultural way of life. Others see a warming Arctic as an opportunity for industrial development. Addressing contemporary issues that concern northern peoples in general and Inuit in particular involves understanding connections between leadership, global environmental change, human rights, indigenous cultures, and foreign policies, and being able to work on both a global and local level. (Same as Environmental Studies 2312 {272}.)

Prerequisite: Anthropology 1050 {102} or 1101 {101}, and Environmental Studies 1101 {101}; or permission of the instructor.

**2601 {232} b - ESD, IP. Bollywood and Beyond: Indian Cinemas and Society.** Fall 2014. Sara Dickey.

Explores Indian films, film consumption, and film industries since 1947. Focuses on mainstream cinema in different regions of India, with some attention to the impact of popular film conventions on art cinema and documentary. Topics include the narrative and aesthetic conventions of Indian films, film magazines, fan clubs, cinema and electoral politics, stigmas on acting, filmmakers and filmmaking, rituals of film watching, and audience interpretations of movies. The production, consumption, and content of Indian cinema are examined in social, cultural, and political contexts, particularly with an eye to their relationships to class, gender, and nationalism. Attendance at weekly evening screenings is required. *Note:* Fulfills the non-US cinema requirement for Cinema Studies minors. (Same as Asian Studies 2561 {247} and Film Studies 2232 {232}.)

Prerequisite: One of the following: Anthropology 1101 {101}, Sociology 1101 {101}, Film Studies 1101 {101} or 2202 {202}, one course in Asian studies; or permission of the instructor.

**[2647 {248} b. Activist Voices in India.** (Same as Asian Studies 2562 {248}, Cinema Studies 2248 {248}, and Gender and Women's Studies 2250 {246}.)]

**[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.** Fall 2014. Krista Van Vleet.

Explores the anthropology and history of the Andes, focusing on questions of cultural transformation and continuity among Native Andeans. Examines ethnography, popular culture, and current events of Bolivia, Ecuador, and Peru. Topics include the Inca state and Spanish colonization; Native Andean family and community life; subsistence economies; gender, class, and ethnic inequalities and social movements; domestic and state violence; religion; tourism; coca and cocaine production; and migration. (Same as Latin American Studies 2738 {238}.)

Prerequisite: Anthropology 1101 {101} or permission of the instructor.

**2735 b - IP. Contemporary Haiti.** Spring 2015. Greg Beckett.

Examines contemporary Haitian culture and society in the context of a prolonged series of crises and international interventions. Focuses on the democratic transition of the late twentieth century and the recent humanitarian intervention in the wake of a series of natural disasters. Considers the historical roots of the Haitian crisis with a particular focus on Haiti's marginalization within the world system. Explores the relationship between Haiti and the international community, especially the role of nongovernmental organizations, humanitarian organizations, and international institutions in the everyday lives of Haitians. (Same as Africana Studies 2735 and Latin American Studies 2735.)

Prerequisite: One of the following: Anthropology 1101 {101}, Sociology 1101 {101}, or Africana Studies 1101 {101}.

**[2840 {240} b - ESD. Contemporary Issues of Native North America.]**

**[2901 b - IP. Archaeology of the Black Atlantic.** (Same as Africana Studies 2901.)]

**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 2015. Greg Beckett, Scott MacEachern.

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.** (Same as Gay and Lesbian Studies 3100 {313}, Gender and Women's Studies 3100 {313}, and Latin American Studies 3711 {311}.)]

**3210 {321} b. Animal Planet: Humans and Other Animals.** Fall 2014. Susan Kaplan.

Cultures around the world maintain different stances about non-human animals. People eat meat or avoid doing so. Religions advocate veneration, fear, or loathing of certain animals. Domesticated animals provide us company, labor, and food. Wild animals are protected, studied, photographed, captured, and hunted. Animals inhabit novels, are featured in art, and adorn merchandise. Students read ethnographies, articles, animal rights literature, and children's books; study museum collections; and examine animal themes in films and on the web. Employing anthropological perspectives, considers what distinguishes humans from other animals, how cultures are defined by peoples' attitudes about animals, and what might be our moral and ethical responsibilities to other creatures. (Same as Environmental Studies 3920 {320}.)

Prerequisite: Anthropology 1101 {101} or 1150 {102}, and one course numbered 2000-2969 {200-289} in anthropology; or permission of the instructor.

**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 DANCE

Paul Sarvis, *Department Chair*

Noma Petroff, *Department Coordinator*

*Professor:* Davis R. Robinson

*Assistant Professors:* Charlotte M. Griffin, Abigail Killeen

*Senior Lecturers:* Gwyneth Jones, Paul Sarvis

*Lecturer:* Judy Gailen

*Visiting Faculty:* Sally Wood

*Fellow:* Christina Knight

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 221.

## DANCE

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 basis—and 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}, 2241/2242, 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 159–172.

**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 semester. The Department.

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 2015. The Department.

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}.)

**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.** Every semester. 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.** Every semester. 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 2015. 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.** Fall 2015. The Department.

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 2014. 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. Dancing Histories.** Fall 2014. Paul Sarvis.

Studio work accompanies video viewings and readings on twentieth-century modern dance and ballet. Focuses on the cultural politics of dance performance—vocabularies and notions of representation; intention and authorship—and changing ideas of the performance space. Viewing and reading moves chronologically, while studio work addresses global themes such as dance and identity, expressionism, self-reference, and the “natural.” No previous dance experience required.

**2211 {211} c - VPA. Modern II: Technique.** Fall 2014. Gwyneth Jones.

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.** Fall 2014. Gwyneth Jones.

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.** Spring 2015. Charlotte Griffin.

A continuation of the processes introduced in Dance 1221 {121}. May be repeated for credit. 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.** Spring 2015. Charlotte Griffin.

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. May be repeated for credit. Grading is Credit/D/Fail. One-half credit.

**[2231 {231} c - VPA. Jazz II: Technique.]**

**[2232 {232} c - VPA. Jazz II: Repertory and Performance.]**

**2401 {270} c - VPA. Choreography for Dancers: Invention, Method, and Purpose.** Spring 2015. 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}.

**2502 {240} c - VPA. Performance in the Twenty-First Century: Avant-Garde/Neo Avant-Garde.** Spring 2016. The Department.

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-garde. 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}.)

**2503 c - ESD, VPA. Introduction to Black Performance Studies.** Fall 2014. Christina Knight.

What does it mean to say that we “perform” our identities? What role can performance play in the fight for racial and social justice? What role has performance played in shaping the history of black Americans, a people long denied access to literacy? Performance studies—an interdisciplinary field devoted to the study of a range of aesthetic practices—offers insight into such questions. Investigates various performances, including contemporary plays, movies and television, dance, and social media. Examines the relationship between identities like race, gender, class, and performance as well as the connection between performance onstage and everyday life. (Same as Africana Studies 2502 and Theater 2503.)

**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.** Every semester. The Department.

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.** Every semester. The Department.

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.** (Same as Theater 3301 {340}.)]

**3401 {322} c. Ensemble Devising: The Art of Collaborative Creation.** Spring 2017. 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. (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}, 3205;
- 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 159–172.

## 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 2014. 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.** Fall 2015. The Department.

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 2014. 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}.)

[1503 c - IP, VPA. **Theater of Action: Performance for Social Change.**]

**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.

**2201 {220} c - VPA. Acting II: Voice and Text.** Every year. Spring 2015. The Department.

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 2015. 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.

**2501 {201} c - VPA. Theater History and Theory: Theatrical Metamorphoses—Histories and Innovations.** Every other year. Fall 2015. The Department.

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 seventeenth-century France, and 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 2015.

**2502 {240} c - VPA. Performance in the Twenty-First Century: Avant-Garde/Neo Avant-Garde.** Spring 2016. The Department.

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}.)

**2503 c - ESD, VPA. Introduction to Black Performance Studies.** Fall 2014. Christina Knight.

What does it mean to say that we “perform” our identities? What role can performance play in the fight for racial and social justice? What role has performance played in shaping the history of black Americans, a people long denied access to literacy? Performance studies—an interdisciplinary field devoted to the study of a range of aesthetic practices—offers insight into such questions. Investigates various performances, including contemporary plays, movies and television, dance, and social media. Examines the relationship between identities like race, gender, class, and performance as well as the connection between performance onstage and everyday life. (Same as Africana Studies 2502 and Dance 2503.)

**2846 {246} c. Modern Drama and Performance.** Spring 2015. Marilyn Reizbaum.

Examines dramatic trends of the modern period, beginning with a triumvirate of modern dramatists—Henrik Ibsen, Bertolt Brecht, and Samuel Beckett—and draws lines from their work in drama of ideas, epic theatre, and absurdism to developments in the dramatic arts through the modern period into the twenty-first century. Includes plays by Lorraine Hansberry, Caryl Churchill, and Martin McDonagh. Readings staged. (Same as English 2452 {246} and Gender and Women’s Studies 2262 {262}.)

**2868 {218} c - IP, VPA. Smashing the Fourth Wall: Russian Theater Arts in the Twentieth and Twenty-First Centuries.** Spring 2015. 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 Blok, 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 2016. The Department.

An advanced 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.

## COURSES OF INSTRUCTION

**3205 c. Advanced Acting.** Fall 2014. Abigail Killeen.

An advanced acting course building on the practices developed in Acting I and Acting II. Using the plays of Anton Chekhov and other master playwrights from the twentieth and twenty-first centuries, students challenge and deepen their understanding and application of Stanislavskian text analysis. Readings in contemporary theater theory and viewings of prized theatrical performances help students contextualize their own performance work and develop a language for analyzing and critiquing peer and professional theatrical performance.

Prerequisite: Theater 1201 {120}, and Theater 2201 {220} or 2202 {225}, or permission of the instructor.

**3401 {322} c. Ensemble Devising: The Art of Collaborative Creation.** Spring 2017. 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. (Same as Dance 3401 {322}.)

Prerequisite: One course numbered 1100–1999 {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 2016. Davis Robinson.

An advanced 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 RESOURCES AND FACILITIES

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## 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](http://library.bowdoin.edu)) is the portal to the combined Colby, Bates, and Bowdoin library catalog (CBBat), 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 50,000 print and electronic periodical and newspaper subscriptions, 390 online indexes and databases, as well as e-books, audiovisual items, maps, photographs, a growing repository of born-digital content, and over 5,600 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 first-year 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.



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 seventy 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 twentieth-century 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](http://bowdoin.edu/art-museum).

## PEARY-MACMILLAN ARCTIC MUSEUM AND ARCTIC 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, 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

## EDUCATIONAL RESOURCES AND FACILITIES

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.

### **Robert H. and Blythe Bickel 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 new addition to the campus replaces a number of disparate arts spaces. The Edwards Center for Art and Dance 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 316), Beam Classroom, and Kresge Auditorium. (See also Museums, pages 316–318.)

### **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.

## CENTER FOR LEARNING AND TEACHING

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 '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, as well as drop-in tutoring. 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.

## **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/](http://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 an island-based scientific field station 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 Bowdoin Scientific Station (BSS) is located on a cluster of islands in the Grand Manan Archipelago known as Three Islands. Three Islands consists of Kent, Sheep, and Hay Islands, which are owned entirely by the College. Kent Island, the largest of the Three Islands (250 acres), was presented to

the College in 1936 by J. Sterling Rockefeller. In 2003, the College acquired neighboring Hay and Sheep Islands to help preserve the unique environment offered by Three Islands. The Bowdoin Scientific Station has an international reputation, with more than 205 peer-reviewed publications based on research at Three Islands, approximately 35 percent of which were co-authored by students.

Three Islands 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. Three Islands also features a variety of terrestrial habitats.

Although formal courses are not offered at BSS, students from Bowdoin and other institutions select problems for investigation at Three Islands 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 BSS 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 RESEARCH**

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 self-development. 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.

## EDUCATIONAL RESOURCES AND FACILITIES

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 across the country. Each year the College awards Bowdoin research fellowships to more than 200 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 McKean 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 McKean's vision is a central mission of the College as a whole, and the Joseph McKean 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 McKean 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 winter and 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 McKean 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 McKean 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 TECHNOLOGY

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

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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](http://bowdoin.edu).

## THE ACADEMIC HONOR AND SOCIAL 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

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**Barry Mills**, A.B. (Bowdoin), Ph.D. (Syracuse), J.D. (Columbia), President of the College. (2001)†

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**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) (*on leave of absence for the fall semester*)

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**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), Samuel S. Butcher Assistant Professor in the Natural Sciences. (2008)

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\* *Indicates candidate for doctoral degree at time of appointment*

OFFICERS OF INSTRUCTION

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**Michael M. Franz**, B.A. (Fairfield), M.A., Ph.D. (Wisconsin–Madison), Associate Professor of Government. (2005)

**Judy Gailen**, M.F.A. equiv. (Yale School of Drama), Adjunct Lecturer in Theater. (*Fall semester.*)

**Damon P. Gannon**, B.A. (Brandeis), M.A. (Bridgewater State), Ph.D. (Duke), Director of the Bowdoin Scientific Station on Kent Island and Adjunct Assistant Professor of Biology. (2008)

**Davida Gavioli**, B.A. (Bergamo–Italy), Ph.D. (Pennsylvania State), Senior Lecturer in Italian. (2008)

**Eric C. Gaze**, B.A. (Holy Cross), M.A., Ph.D. (Massachusetts–Amherst), Director of Quantitative Reasoning and Lecturer in Mathematics. (2009)

**Kristen R. Ghodsee**, B.A. (California–Santa Cruz), M.A., Ph.D. (California–Berkeley), Professor of Gender and Women's Studies. (*On leave of absence for the academic year.*) (2002)

**Timothy J. Gilbride**, A.B. (Providence), M.P. (American International), Coach in the Department of Athletics. (1985)

**Shaun A. Golding**, A.B. (Bowdoin), M.S., Ph.D. (Wisconsin–Madison), Visiting Assistant Professor of Sociology. (2012)

**Natasha Goldman**, B.A. (Syracuse), M.A., Ph.D. (Rochester), Adjunct Lecturer in Art History. (*Fall semester.*)

**Jonathan P. Goldstein**, A.B. (New York–Buffalo), A.M., Ph.D. (Massachusetts), Professor of Economics. (*On leave of absence for the academic year.*) (1979)

- Cory Charles Gooding**, B.A. (Haverford), M.A., M.A., Ph.D. (UCLA), CFD Postdoctoral Fellow in Government. (2014)
- Celeste Goodridge**, A.B. (George Washington), A.M. (William and Mary), Ph.D. (Rutgers), Professor of English. (1986)
- David Gordon**, B.A. (University of Cape Town), M.A., Ph.D. (Princeton), Associate Professor of History. (*On leave of absence for the academic year.*) (2005)
- Benjamin C. Gorske**, B.M., B.A. (Lawrence University), Ph.D. (Wisconsin–Madison), Assistant Professor of Chemistry and Biochemistry. (2010)
- Frances Gouda**, B.A., M.A., Ph.D. (Washington–Seattle), Visiting Professor of Gender and Women’s Studies. (2014)
- Robert K. Greenlee**, B.M., M.M. (Oklahoma), D.M. (Indiana), Professor of Music. (1982)
- Charlotte Griffin**, B.F.A. (Juilliard), M.F.A. (Texas–Austin), Assistant Professor of Dance. (2010)
- Elizabeth Grote**, B.S. (Vermont), M.S. (New Hampshire), Coach in the Department of Athletics. (2002)
- Tristan Grunow**, B.A. (Oregon State), B.A., M.A. (Oregon), Visiting Instructor in History and Asian Studies.\* (2014)
- Crystal Hall**, B.A. (Cornell), M.A., Ph.D. (Pennsylvania), Visiting Assistant Professor in the Digital Humanities. (2013)
- Morten K. Hansen**, B.A. (University of Copenhagen), M.A. (Virginia), Visiting Instructor in English.\* (2014)
- Leon Harkleroad**, B.S. (George Mason), Ph.D. (Notre Dame), Adjunct Associate Professor of Mathematics. (*Fall semester.*)
- Anne C. J. Hayden**, B.A. (Harvard College), M.S. (Duke University), Adjunct Lecturer in Environmental Studies. (*Spring semester.*)
- David Hecht**, B.A. (Brandeis), Ph.D. (Yale), Assistant Professor of History and Director of First-Year Seminar Program. (2006)
- Barbara S. Held**, A.B. (Douglass), Ph.D. (Nebraska), Barry N. Wish Professor of Psychology and Social Studies. (*Fall semester.*) (1979)
- Laura A. Henry**, B.A. (Wellesley), M.A., Ph.D. (California–Berkeley), John F. and Dorothy H. Magee Associate Professor of Government. (2004)
- Guillermo Herrera**, A.B. (Harvard), M.S., M.A., Ph.D. (Washington), Associate Professor of Economics. (2000)
- K. Page Herrlinger**, B.A. (Yale), M.A., Ph.D. (California–Berkeley), Associate Professor of History. (*On leave of absence for the academic year.*) (1997)
- Christopher Heurlin**, B.A. (Carleton), M.A., Ph.D. (Washington), Assistant Professor of Government and Asian Studies. (*On leave of absence for the spring semester.*) (2011)
- James A. Higginbotham**, B.S., A.M., Ph.D. (Michigan), Associate Professor of Classics on the Henry Johnson Professorship Fund, Associate Curator for the Ancient Collection, and Interim Registrar. (1994)

**Paul Holbach**, B.S. (Gustavus Adolphus College), Coach in the Department of Athletics. (2007)

**John C. Holt**, A.B. (Gustavus Adolphus), A.M. (Graduate Theological Union), Ph.D. (Chicago), Litt.D. (University of Peradeniya), William R. Kenan Jr. Professor of the Humanities in Religion and Asian Studies. (*On leave of absence for the spring semester.*) (1978)

**Sree Padma Holt**, B.A., M.A., Ph.D. (Andhra University), Research Assistant Professor and Administrative Director of the ISLE Program. (2003)

**Russell J. Hopley**, B.A. (Northwestern), M.A. (Stanford), M.A. (Loyola), Ph.D. (Princeton), Lecturer in Arabic. (2008)

**Hadley Wilson Horch**, B.A. (Swarthmore), Ph.D. (Duke), Associate Professor of Biology and Neuroscience. (2001)

**Alanna Hoyer-Leitzel**, B.A. (St. Olaf), M.S., Ph.D. (Minnesota), Ed Lorenz Postdoctoral Fellow in the Mathematics of Climate Change. (2014)

**Mary Hunter**, B.A. (Sussex), M.A., Ph.D. (Cornell), A. LeRoy Greason Professor of Music. (1997)

**Mohammad T. Irfan**, B.S., M.S. (Bangladesh University), Ph.D. (Stony Brook), Visiting Assistant Professor of Computer Science and Fellow in Digital and Computational Studies. (2013)

**Emily Isaacson**, B.A. (Williams), M.M. (Edinburgh), M.M. (Oregon), Adjunct Lecturer in Music. (*Fall semester.*)

**George S. Isaacson**, A.B. (Bowdoin), J.D. (Pennsylvania), Adjunct Lecturer in Government. (*Fall semester.*)

**William R. Jackman**, B.S. (Washington–Seattle), Ph.D. (Oregon), Assistant Professor of Biology. (2007)

**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)

**Amy S. Johnson**, B.A. (California–Los Angeles), Ph.D. (California–Berkeley), James R. and Helen Lee Billingsley Professor of Marine Biology. (1989)

**Eileen Sylvan Johnson**, B.S. (Cornell), M.A. (Massachusetts–Amherst), Program Manager and Lecturer in Environmental Studies. (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)

**B. Zorina Khan**, B.Sc. (University of Surrey), M.A. (McMaster University), Ph.D. (California–Los Angeles), Professor of Economics. (*On leave of absence for the academic year.*) (1996)

- Ann Louise 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. (2008)
- Brian H. Kim**, B.S., B.A. (California–Los Angeles), Ph.D. (Columbia), Postdoctoral Fellow in Philosophy. (2014)
- Michael King**, B.A. (Yale), M.S., Ph.D. (Brown), Lecturer in Mathematics. (2009)
- Sarah Kingston**, B.A. (William and Mary), M.S. (College of Charleston), Ph.D. (Maryland), Doherty Marine Biology Postdoctoral Scholar. (2014)
- Aaron W. Kitch**, B.A. (Yale), M.A. (Colorado–Boulder), Ph.D. (Chicago), Associate Professor of English. (2002)
- Jens Klenner**, M.A. (Friedrich–Alexander Universität), ABD (George Mason), M.A., Ph.D. (Princeton University and Universität Konstanz), Assistant Professor of German. (2014)
- Michael Klimov**, B.A., M.A.-equiv. (Kyiv State Pedagogical Institute of Foreign Languages–Ukraine), Lecturer in Russian. (2013)
- Matthew W. Klinge**, B.A. (California–Berkeley), M.A., Ph.D. (Washington), Associate Professor of History and Environmental Studies. (2001)
- Christina Knight**, B.A. (Stanford), A.M., Ph.D. (Harvard), CFD Postdoctoral Fellow in Theater. (2014)
- 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 fall semester.*) (2000)
- Belinda Kong**, B.A. (William and Mary), M.A., Ph.D. (Michigan), Associate Professor of Asian Studies and English. (*On leave of absence for the academic year.*) (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)



## OFFICERS OF INSTRUCTION

- Miriam Logan**, B.S., M.S. (University College–Dublin), Ph.D. (Yale), Lecturer in Quantitative Reasoning. (2013)
- Janet K. Lohmann**, B.A., M.A. (Lehigh), Ph.D. (Massachusetts), Adjunct Lecturer in Sociology. (*Spring semester*.)
- George Lopez**, B.Mus. (Hartt School of Music), M.Mus. (Sweelinck Conservatorium–Amsterdam), 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. (*On leave of absence for the academic year*.) (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)
- Sarah Y. T. Mak**, B.A. (California–San Diego), Ph.D. (California–Santa Cruz), Visiting Assistant Professor of Government and Asian Studies. (2014)
- 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)
- MaryBeth Mathews**, B.A., M.A. (University of Southern Maine), Coach in the Department of Athletics. (1994)
- Frank Mauceri**, B.A., B.M. (Oberlin), M.M., D.M.A. (Illinois–Urbana-Champaign), Senior Lecturer in Music. (2003)
- Anne E. McBride**, B.S. (Yale), M.Phil. (Cambridge), Ph.D. (Colorado–Boulder), Associate Professor of Biology and Biochemistry. (2001)
- Ryan McConnell**, B.A. (California–Santa Cruz), M.A., Ph.D. (Illinois–Urbana-Champaign), Visiting Assistant Professor of Classics. (2014)
- Sarah F. McMahan**, 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**, A.B. (Bowdoin), M.A., Ph.D. (Duke), Assistant Professor of Economics. (2008)
- Alison Miller**, B.A. (Ithaca), M.A. (Arcadia), Instructor in Education.\* (2014)
- Richard E. Morgan**, A.B. (Bowdoin), A.M., Ph.D. (Columbia), William Nelson Cromwell Professor of Constitutional and International Law and Government. (1969)
- John Morneau**, B.M. (New Hampshire), Director of the Bowdoin Concert Band. (*Adjunct*.) (1988)

- Stephen Morris**, B.A. (Wesleyan), M.A., Ph.D. (California–San Diego), Assistant Professor of Economics. (2014)
- Robert G. Morrison**, A.B., A.M. (Harvard), Ph.D. (Columbia), Associate Professor of Religion. (2008)
- Madeleine E. Msall**, B.A. (Oberlin), M.A., Ph.D. (Illinois–Urbana-Champaign), Professor of Physics. (1994)
- 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. (1980)
- Erik Nelson**, B.A. (Boston College), M.A., Ph.D. (Minnesota), Assistant Professor of Economics. (2010)
- Ingrid A. Nelson**, B.A. (Wellesley), M.A., Ph.D. (Stanford), Assistant Professor of Sociology. (*On leave of absence for the academic year.*) (2010)
- Michael Nerdahl**, B.S., M.A., Ph.D. (Wisconsin–Madison), Lecturer in Classics. (2008)
- Simbarashe Nkomo**, B.S. (Bindura University (Zimbabwe)), M.Ed. (University of Zimbabwe), Visiting Instructor in Chemistry.\* (2014)
- 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., Ph.D. (Vanderbilt), Visiting Assistant Professor of Psychology. (2013)
- Marissa O'Neil**, A.B. (Bowdoin), M.S. (Massachusetts–Amherst), Coach in the Department of Athletics. (2010)
- Kristi Olson**, B.A. (Indiana), J.D. (Duke), A.M., Ph.D. (Harvard University), Assistant Professor of Philosophy. (2014)
- Michelle Oosterbaan**, B.F.A. (Washington University–St. Louis), M.F.A. (Indiana), Visiting Assistant Professor of Art. (2014)
- Michael F. Palopoli**, B.S., M.S. (Michigan), Ph.D. (Chicago), Associate Professor of Biology. (*On leave of absence for the fall semester.*) (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. (1994)

## OFFICERS OF INSTRUCTION

- 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), Peter M. Small Associate Professor of Art History. (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. (Wisconsin–Madison), Research Professor of Biology. (1985)
- Thomas Pietraho**, B.A., M.S. (Chicago), Ph.D. (Massachusetts Institute of Technology), Associate Professor of Mathematics. (2001)
- Frank Pizzo**, A.B. (Bowdoin College), Coach in the Department of Athletics. (2008)
- Christian P. Potholm II**, A.B. (Bowdoin), M.A., M.A.L.D., Ph.D. (Tufts), DeAlva Stanwood Alexander Professor of Government. (*On leave of absence for the spring semester.*) (1970)
- Laura J. Premack**, B.A. (Wesleyan), Ed.M. (Harvard), M.A., Ph.D. (North Carolina–Chapel Hill), Andrew W. Mellon Postdoctoral Fellow in Latin American Studies. (2012)
- Elizabeth A. Pritchard**, A.B. (Boston College), M.T.S., M.A., Ph.D. (Harvard), Associate Professor of Religion. (1998)
- Brian Purnell**, B.A. (Fordham), M.A., Ph.D. (New York University), Associate Professor of Africana Studies and History. (*On leave of absence for the fall semester.*) (2010)
- Samuel P. Putnam**, B.S. (Iowa), M.S., Ph.D. (Pennsylvania State), Professor of Psychology. (2001)
- Patrick J. Rael**, B.A. (Maryland–College Park), M.A., Ph.D. (California–Berkeley), Professor of History. (1995)
- Amanda Redlich**, B.A. (Chicago), Ph.D. (MIT), Assistant Professor of Mathematics. (2013)
- Hannah Reese**, B.A. (Wellesley), M.A., Ph.D. (Harvard), Assistant Professor of Psychology. (2014)
- Anna Rein**, M.A. equiv. (University of Pisa), Senior Lecturer in Italian. (*On leave of absence for the fall semester.*) (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. (*On leave of absence for the spring semester.*) (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. (*On leave of absence for the academic year.*) (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)

- Melissa L. Rosario**, B.A. (Wesleyan), M.A., Ph.D. (Cornell), Postdoctoral Fellow in Anthropology. (2013)
- Zachary Rothschild**, B.A. (Knox), M.A. (Colorado–Colorado Springs), Ph.D. (Kansas), Assistant Professor of Psychology. (2014)
- Andrew C. Rudalevige**, B.A. (Chicago), M.A., Ph.D. (Harvard), Thomas Brackett Reed Professor of Government. (2012)
- Lynn M. Ruddy**, B.S. (Wisconsin–Oshkosh), Associate Director of Athletics and Coach in the Department of Athletics. (1976)
- Timothy M. Ryan**, A.B. (Bowdoin), M.S. (Drexel), Ashmead White Director of Athletics. (2005)
- Russell Rymer**, Visiting Writer-in-Residence. (2014)
- Arielle Saiber**, B.A. (Hampshire), M.A., Ph.D. (Yale), Associate Professor of Romance Languages. (1999)
- Doris A. Santoro**, B.A. (Rochester), Ed.D. (Columbia), Associate Professor of Education. (2005)
- Paul Sarvis**, B.A., M.F.A. (Goddard), Senior Lecturer in Dance Performance. (1987)
- Carrie Scanga**, B.A. (Bryn Mawr), M.F.A. (Washington–Seattle), Assistant Professor of Art. (2009)
- Jennifer Scanlon**, B.S. (SUNY–Oneonta), M.A. (Delaware), M.A., Ph.D. (Binghamton), William R. Kenan Jr. Professor of the Humanities in Gender and Women's Studies and Associate Dean for Faculty. (2002)
- Paul E. Schaffner**, A.B. (Oberlin), Ph.D. (Cornell), Associate Professor of Psychology. (*On leave of absence for the spring semester.*) (1977)
- Christian Schrader**, B.S. (Alaska), M.S., Ph.D. (Georgia), Visiting Assistant Professor of Earth and Oceanographic Science. (2014)
- Sandro Sechi**, M.A. (University of Milan), Adjunct Lecturer in Italian. (Fall semester.)
- Kathryn Sederberg**, B.A. (St. Olaf), Visiting Instructor in German.\* (2014)
- Scott R. Sehon**, B.A. (Harvard), M.A., Ph.D. (Princeton), Professor of Philosophy. (*On leave of absence for the academic year.*) (1993)
- Jeffrey S. Selinger**, B.A. (Rutgers), M.A., Ph.D. (Cornell), Assistant Professor of Government. (2007)
- Vyjayanthi Ratnam Selinger**, B.A. (Jawaharlal Nehru University, India), M.A. (Harvard), Ph.D. (Cornell), Associate Professor of Asian Studies. (2005)
- Gonca Senel**, B.S., M.A. (Bilkent University–Turkey), M.A. (California–Los Angeles), Instructor in Economics.\* (2014)
- Cynthia Shelmerdine**, A.B. (Bryn Mawr), B.A. (Cambridge), Ph.D. (Harvard), Adjunct Professor of Classics. (*Spring semester.*)
- Vineet Shende**, B.A. (Grinnell), M.A. (Butler), Ph.D. (Cornell), Associate Professor of Music. (2002)
- Accra Shepp**, B.A. (Princeton), M.A. (NYU Institute of Fine Arts), Visiting Artist in Residence. (2014) (*Fall semester.*)

- Adrienne Shibles**, B.A. (Bates), M.S. (Smith), Coach in the Department of Athletics. (2008)
- Lawrence H. Simon**, A.B. (Pennsylvania), A.B. (Oxford), M.A./B.A. (Cambridge), Ph.D. (Boston University), Associate Professor of Philosophy and Environmental Studies. (1987)
- Peter Slovenski**, A.B. (Dartmouth), A.M. (Stanford), Coach in the Department of Athletics. (1987)
- Louisa M. Slowiaczek**, B.S. (Massachusetts), Ph.D. (Indiana), Professor of Psychology. (1998)
- Conor Smith**, B.A. (Mary Washington College), M.A. (Washington College). Coach in the Department of Athletics. (2011)
- Jill S. Smith**, B.A. (Amherst), M.A., Ph.D. (Indiana–Bloomington), Associate Professor of German. (*On leave of absence for the academic year.*) (2006)
- Robert B. Sobak**, A.B. (Franklin and Marshall), M.A. (Georgia), M.A., Ph.D. (Princeton), Associate Professor of Classics. (2007)
- Emma Maggie Solberg**, B.A. (Oxford), Ph.D. (Virginia), Assistant Professor of English. (2013)
- Allen L. Springer**, A.B. (Amherst), M.A., M.A.L.D., Ph.D. (Tufts), Professor of Government. (*On leave of absence for the fall semester.*) (1976)
- Elizabeth A. Stemmler**, B.S. (Bates), Ph.D. (Indiana), Professor of Chemistry. (1988)
- Daniel F. Stone**, B.S. (Yale), M.A., Ph.D. (Johns Hopkins), Assistant Professor of Economics. (2012)
- Matthew F. Stuart**, B.A. (Vermont), M.A., Ph.D. (Cornell), Professor of Philosophy. (1993)
- Rachel L. Sturman**, B.A. (Chicago), M.A., Ph.D. (California–Davis), Associate Professor of History and Asian Studies. (*On leave of absence for the fall semester.*) (2003)
- Ryan Sullivan**, B.A. (Middlebury), Coach in the Department of Athletics. (2001)
- Dale A. Syphers**, B.S., M.Sc. (Massachusetts), Ph.D. (Brown), Professor of Physics. (1986)
- Jennifer Taback**, B.A. (Yale), M.A., Ph.D. (Chicago), Professor of Mathematics. (2002)
- Susan M. Taffe Reed**, B.A. (Colgate), M.A., Ph.D. (Cornell), CFD Postdoctoral Fellow in Music. (2013)
- Susan L. Tananbaum**, B.A. (Trinity), M.A., M.A., Ph.D. (Brandeis), Associate Professor of History. (1990)
- Yao Tang**, B.A. (Beijing Second Foreign Language Institute), M.A. (Simon Fraser), Ph.D. (British Columbia), Assistant Professor of Economics. (2009)
- Birgit Tautz**, Diplom Germanistik (Leipzig), M.A. (Wisconsin), Ph.D. (Minnesota), Associate Professor of German. (2002)
- Samuel H. Taylor**, B.S., Ph.D. (York–United Kingdom), Visiting Assistant Professor of Biology. (2012)
- Hilary J. Thompson**, B.A. (Toronto), M.A., Ph.D. (Michigan), Assistant Professor of English. (*On leave of absence for the academic year.*) (2009)
- Richmond R. Thompson**, B.S. (Furman), Ph.D. (Cornell), Professor of Psychology and Neuroscience. (1999)

- Alana Tiemessen**, B.A. (McGill), M.A., Ph.D. (British Columbia), Visiting Assistant Professor of Government. (2014)
- Kristina Toland**, B.A., M.A. (Ohio State), Ph.D. (Northwestern), Visiting Assistant Professor of Russian. (2012)
- Laura I. Toma**, B.S., M.S. (Universitatea Politehnica Bucuresti), M.S., Ph.D. (Duke), Associate Professor of Computer Science. (2003)
- Karen Topp**, B.Sc. (Queen's University, Kingston, Ontario), Ph.D. (Cornell), Senior Lecturer in Physics. (2005)
- Shu-chin Tsui**, B.A. (Xian Foreign Language Institute, China), M.A. (Wisconsin), M.A., Ph.D. (Michigan), Professor of Asian Studies and Cinema Studies. (2002)
- Joseph Tulchin**, B.A. (Amherst), Ph.D. (Harvard), Adjunct Lecturer in Latin American Studies. (*Fall semester*.)
- Esmeralda Ulloa**, B.A. (California-Irvine), A.M., Ph.D. (Harvard), Adjunct Lecturer in Spanish. (*Fall semester*.)
- Krista E. Van Vleet**, B.S. (Beloit), M.A., Ph.D. (Michigan), Associate Professor of Anthropology. (1999)
- Dharni Vasudevan**, B.S. (Massachusetts Institute of Technology), M.S., Ph.D. (Johns Hopkins), Professor of Chemistry and Environmental Studies. (2003)
- Olufemi O. Vaughan**, B.A., M.A. (St. John's), Ph.D. (Oxford), Geoffrey Canada Professor of Africana Studies and History. (2008)
- Hanétha Vété-Congolo**, B.A., M.A., Ph.D. (Université des Antilles et de la Guyane), Associate Professor of Romance Languages. (2001)
- Anthony E. Walton**, B.A. (Notre Dame), M.F.A. (Brown), Writer in Residence. (1995)
- Peggy Wang**, B.A. (Wellesley), M.A., Ph.D. (Chicago), Assistant Professor of Art History and Asian Studies. (2012)
- Christopher Watkinson**, A.A. (Full Sail School of Recording), B.A. (Southern Maine), Adjunct Lecturer in Music and Recital Hall Technician. (2007)
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## INDEX

- Academic Honor Code.  
*See* Codes of Conduct
- Academic standards and regulations, 21-35  
 attendance, 21  
 comment and failure cards, 26  
 course credit, 21  
 course load, 21  
 credit/D/fail option, 25  
 Dean's List, 27  
 deficiency in scholarship, 28-29  
 examinations, 21-22  
 grades, 24  
 graduation, 34-35  
 honors, 26-27  
 incompletes, 25  
 independent study, 23-24  
 leaves of absence, 29-32  
 medical leave, 30-33  
 petitions, 35  
 readmission, 35  
 registration, 22-23  
 resignation, 35  
 student responsibility, 26  
 transcripts, 26  
 transfer of credit, 33-34
- Academic skills programs, 319-20
- Accreditation, 5
- Achievement tests. *See* Admission to the College
- Activities fee, 12
- Admission to the College, 10-11
- Advising system. *See* Curriculum
- Africana studies, 40-49
- Afro-Latin Music Ensemble, 253
- American government. *See*  
 Government and legal studies
- American history. *See* History
- American literature. *See* English
- Anthropology, 300-04. *See also* Sociology
- Application.  
*See* Admission to the College
- Arabic, 50
- Archaeology courses, 98-99. *See also* Classics
- Archives, 315
- Arctic museum. *See* Peary-MacMillan  
 Arctic Museum
- Arctic studies, 36, 317-18
- Arctic Studies Center, 36, 317-18
- Art, 51-59  
 courses in history of art, 52-56  
 courses in visual arts, 56-59
- Art Museum. *See* Bowdoin College  
 Museum of Art
- Arts facilities, 318-19
- Asian studies, 60-72
- Astronomy. *See* Physics and astronomy
- Auditoriums  
 Kanbar, 319  
 Kresge, 318
- Automobiles. *See* Motor vehicles
- Award of honors, 26-28
- Baldwin Program for Academic  
 Development, 319
- Beckwith Music Library, 316
- Biochemistry, 73
- Biology, 74-83
- Bowdoin College  
 general information, 5  
 Library, 315-16  
 Museum of Art, 316-17  
 switchboard, 5
- Bowdoin, James, III, 316
- Bowdoin Pines, 320
- Bowdoin Scientific Station, 320-21
- Bracketed courses, 39
- Buck Center for Health and  
 Fitness, Peter, 13
- Calendar, 2013-14, 6-8
- Cars. *See* Motor vehicles
- Center for Learning and Teaching, 319-20
- Certification, for teaching, 37, 128-29
- Chamber Choir. *See* Ensembles
- Charges. *See* Expenses
- Chemistry, 84-90
- Chinese language courses, 69-71  
*See also* Asian studies
- Cinema Studies, 90-95

- Classics, 95-104  
 Archaeology courses, 98-99  
 Classical archaeology major, 96  
 Classical studies major, 96  
 Classics courses, 99-101  
 Classics major, 96  
 Greek courses, 101-102  
 Latin courses, 102-104  
 Minor programs, 97
- Coastal Studies, 36  
 Coastal Studies Center, 36, 321
- Codes of conduct  
 Honor Code, 324  
 Social Code, 324
- Common good, 322
- Computer science, 104-108
- Computing laboratories, 323
- Coordinate major, 19, 143-44
- Counseling service, 13
- Course designations, 39
- Course load. *See* Academic regulations
- Course numbering, 39
- Courses of instruction, 39-314
- Credit/D/fail option. *See* Academic regulations
- Curriculum, 16-20  
 academic requirements, 17  
 advising system, 16  
 coordinate major, 19  
 departmental major, 19  
 distribution requirements, 17-18  
 division requirements, 18  
 interdisciplinary major, 19-20  
 major, 18-20  
 minor, 20  
 requirements for the degree, 17  
 student-designed major, 20
- Damage fees, 13
- Dance, 305-309. *See also* arts facilities; performance studies; theater and dance
- Dean's List. *See* Sarah and James Bowdoin Scholars
- Deficiency in scholarship, 28-29  
 academic probation, 28  
 academic suspension, 28  
 dismissal, 28
- Degree requirements. *See* Curriculum
- Departmental honors. *See* Honors
- Dismissal. *See* Deficiency in scholarship
- Distribution requirements. *See* Curriculum
- Division requirements. *See* Curriculum
- Double major, 18-19. *See also* Major program
- Early Decision. *See* Admission to the College
- Earth and Oceanographic Science, 108-15
- East Asian studies, 60-61. *See also* Asian studies
- East European languages. *See* Russian
- Economics, 116-127
- Education, 128-33  
 Bowdoin Teacher Scholars Program, 37, 128-29  
 certification for teaching, 128-29  
 teaching program, 37
- Educational resources and facilities, 316-23
- Edwards Center for Art and Dance, 318
- Employment. *See* Student employment
- Engineering programs, 36-37
- English, 133-42  
 English composition courses, 135-36  
 English for Multilingual Students, 320
- Ensemble performance studies, 250-51
- Ensembles  
 Afro-Latin Music Ensemble, 253  
 Chamber Choir, 252  
 Chorus, 252  
 Concert Band, 252  
 Ensemble performance, 253  
 Jazz Ensembles, 253  
 Middle Eastern Ensemble, 252
- Environmental studies, 143-58
- Eurasian and East European studies, 222-23
- European history. *See* History
- Examinations.  
*See* Academic regulations
- Expenses, 12-14  
 College charges 2013-14, 12  
 damage fee, 13  
 health care insurance, 13  
 motor vehicle registration, 14  
 off-campus study fee, 12  
 payment of bills, 14  
 payment plans, 14  
 refunds, 12-13  
 registration and enrollment, 12  
 room and board, 13  
 tuition, 12

## INDEX

- Faculty. *See* Instruction, officers of  
Fees. *See* Expenses  
Fellowships and research, 321-22  
Field stations, 320-21  
Film studies, 90-95  
Financial aid, 11  
First-year seminars, 159-72  
Foreign study. *See* Off-campus study  
French courses, 281-84.  
    *See also* Romance languages  
Gay and Lesbian Studies, 173-74  
Gender and Women's Studies, 175-83  
General information, 5  
Geographic distribution of students, 5  
Geology. *See* Earth and  
    Oceanographic Science  
German, 184-87  
Gibson Hall, 318  
Government and legal studies, 188-200  
Grades. *See* Academic regulations  
Graduation, 34-35  
Grants, financial aid, 11  
Greek courses, 101-02. *See also* Classics  
Hatch Science Library, 315  
Hawthorne-Longfellow Library, 315  
Hay Island, 320-321  
Health Center, 13  
Health services, 13  
History, 200-220  
Honors  
    departmental, 27  
    general, 26  
    Sarah and James Bowdoin, 27  
Honors projects, 27  
Honor system. *See* Codes of conduct  
Hyde, William DeWitt, 9, 15  
Incompletes. *See* Academic regulations  
Independent major. *See* Major program  
Independent study, 23-24  
Information, general, 5  
Information and Technology, 323  
Instruction, officers of, 325-38  
Instructional staff, 341-42  
Insurance. *See* Expenses  
Interdisciplinary majors, 19-20, 220  
    art history and archaeology, 220  
    art history and visual arts, 220  
    biochemistry, 72  
    chemical physics, 220-21  
    computer science and mathematics, 221  
    English and theater, 221-22  
    Eurasian and East European  
        studies, 222-23  
    mathematics and economics, 223-24  
    mathematics and education, 224  
    neuroscience, 254-55  
Interdisciplinary studies, 225  
Interviews. *See* Admission to the College  
Italian courses, 284-86.  
    *See also* Romance Languages  
James Bowdoin Scholars. *See* Sarah and  
    James Bowdoin Scholars  
Japanese courses, 71-72. *See also* Asian studies  
Kanbar Auditorium, 319  
Kent Island. *See* Bowdoin Scientific Station  
Kresge Auditorium, 318  
Language courses. *See* names of individual  
    languages  
Language Media Center, 316  
Latin American studies, 226-33  
Latin courses, 102-04. *See also* Classics  
Leave of absence. *See* Academic regulations  
Legal studies, 37. *See also* Government and  
    legal studies  
Liberal education, 15  
Libraries, 315-16  
    archives, 315  
    Beckwith Music Library, 316  
    Bowdoin College Library, 315-16  
    catalog system, online, 315  
    government documents, 315  
    Hatch Science Library, 315  
    Hawthorne-Longfellow, 315  
    Language Media Center, 316  
    manuscript archives, 315  
    Pierce Art Library, 316  
    reference services, 315  
    Special Collections, 315

- MacMillan, Donald B., 317-18
- Major program, 18-20  
     coordinate major, 19  
     departmental major, 19  
     interdisciplinary major, 19-20  
     minor, 20  
     student-designed major, 20
- Mathematics, 234-42
- McKeen, Joseph, 322
- McKeen Center for the Common  
     Good, Joseph, 322
- Medical insurance. *See* Expenses, health  
     care insurance
- Medical leave. *See* Academic regulations
- Medical services. *See* Health services
- Memorial Hall, 318
- Middle Eastern Ensemble, 252
- Minor programs, 20
- Mitchell, George J., 315
- Motor vehicles, registration of, 14
- Museums, 316-18  
     Bowdoin College Museum of  
         Art, 316-18  
     Peary-MacMillan Arctic  
         Museum, 36, 317-18
- Music, 243-53. *See also* Ensembles
- Neuroscience, 254-55
- Off-campus study, 38  
     fees, 12
- Offer of the College, 9
- Officers of instruction, 325-28  
     Officers of instruction emeriti, 338-41
- Pass/fail option. *See* Credit/fail option
- Payment plans, 14
- Peary, Robert, 311
- Peary-MacMillan Arctic Museum, 36, 317-18
- Performance studies  
     music department, 243-53  
     theater and dance department, 305
- Performing arts. *See* arts facilities; music;  
     theater and dance
- Philosophy, 256-60
- Physics and astronomy, 260-65
- Pickard Theater, 318
- Pierce Art Library, 316
- Pines, Bowdoin, 320
- Political science. *See* Government and  
     legal studies
- Probation. *See* Deficiency in scholarship
- Psychological counseling.  
     *See* Counseling service
- Psychology, 266-72
- Quantitative Reasoning Program, 319
- Readmission, 31-32, 35
- Recital hall. *See* Studzinski Recital Hall
- Recommendations. *See* Admission to  
     the College
- Recording Committee, 35
- Refund policy. *See* Expenses
- Registration  
     for courses, 12, 22-23  
     late fees, 12, 23  
     of motor vehicles, 14
- Religion, 273-78
- Requirements for the degree, 17
- Research associates, 343
- Residency requirement. *See* Requirements  
     for the degree
- Resignation, 35
- Romance languages, 279-90
- Room and board, 13. *See* Expenses.
- Russian, 291-94  
     courses in translation, 293-94
- Sarah and James Bowdoin Scholars, 27-28
- SATs. *See* Admission to the College
- Scholarships. *See* Financial aid
- Scholastic Aptitude Tests. *See* Admission to  
     the College
- Science library.  
     *See* Hatch Science Library
- Scientific Station. *See* Kent Island
- Sheep Island, 315
- Slavic languages. *See* Russian
- Social Code. *See* Codes of conduct
- Sociology and anthropology, 295-304  
     anthropology courses, 300-304  
     sociology courses, 296-300
- South American studies.  
     *See* Latin American studies
- Spanish courses, 286-290.  
     *See also* Romance languages
- Special Collections, 315



## INDEX

- Special academic programs, 36-37
- Student Affairs, 324
- Student Aid. *See* Financial aid
- Student-designed major, 20
- Student employment, 11
- Student Fellowships and Research, 321-22
- Study abroad. *See* Off-campus study
- Studzinski Recital Hall, 319
- Suspension. *See* Deficiency in scholarship
- Symbols, leaves and courses, 39
  
- Teaching. *See also* Education
  - Bowdoin Teacher Scholars Program, 37, 128-29
  - certification for, 128-29
  - preparation for, 37
- Telephone switchboard, 5
- Theater and Dance, 305-14
  - dance courses, 305-09
  - theater courses, 309-14
  - See also* Performing arts
- Theaters
  - Pickard Theater, 318
  - Wish Theater, 318
  - See also* Studzinski Recital Hall
- Transcripts, 26
- Transfer of credit, 33-34
- Tuition. *See* Expenses
  
- Vacations. *See* Calendar
- Visual arts courses, 56-59. *See also* Art
- Visual Arts Center, 318
  
- Walker Art Building, 316-17
- Wish Theater, 318
- Writing courses, 136-37.
  - See also* First-year seminars
- Writing Project, 320