This image is one of a suite of drawings which are accompaniments to the music.

The Course Announcement is intended to provide only general information about Brown University, including courses offered, and it is not in any manner contractually binding.

The information contained herein is subject to revision and change at any time.

Equal Opportunity and Nondiscrimination
Brown University does not discriminate on the basis of sex, race, color, religion, age, handicap, status as a veteran, national or ethnic origin, or sexual orientation in the administration of its educational policies, admission policies, scholarship and loan programs, or other school-administered programs.
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## Academic Calendar

### Fall 2012

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<td>August 1, 2012</td>
<td>Last day for payment of charges.</td>
</tr>
<tr>
<td>September 1, 2012</td>
<td>Beginning of Orientation.</td>
</tr>
<tr>
<td>September 4, 2012</td>
<td>Registration of new students for the first semester (5:00 pm to midnight).</td>
</tr>
<tr>
<td>September 5, 2012</td>
<td>Classes of the first semester begin. Web registration begins at 8:00 am. Opening Convocation: 4:00 p.m.</td>
</tr>
<tr>
<td>September 18, 2012</td>
<td>Last day to add a course on-line and/or without a fee (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>October 2, 2012</td>
<td>Last day to add a course, change from audit to credit, or change a grade option declaration (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>October 8, 2012</td>
<td>Fall Weekend Holiday. No University exercises.</td>
</tr>
<tr>
<td>October 15, 2012</td>
<td>Deadline to confirm readmission for Semester II. Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a &quot;No Concentration&quot; hold placed against their Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>October 19, 2012</td>
<td>Mid-semester deadline. Last day to change from credit to audit in a course (5:00 pm deadline). Last day to request a Course Performance Report.</td>
</tr>
<tr>
<td>Oct 22 - Nov 2</td>
<td>Advising period for spring pre-registration. Students in their first through third semesters will need to procure their advising PIN from their advisor in order to register.</td>
</tr>
<tr>
<td>November 1, 2012</td>
<td>Date by which advisors must approve sophomore submitted concentrations in ASK to avoid having a &quot;No Concentration&quot; hold placed against the student's Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>November 6 - 13</td>
<td>Registration for Semester II. (Note: No student will be permitted to register for his or her fifth semester unless an approved declaration of concentration has been filed.)</td>
</tr>
<tr>
<td>November 12, 2012</td>
<td>End of the pre-registration period. &quot;Last day for advisors to approve second concentrations in ASK for students in their 7th semester declaring a second/additional concentration. (5:00 p.m. deadline) Any declarations not &quot;advisor approved&quot; and recorded in Banner by the Office of the Registrar by the 5:00 p.m. deadline will not be honored.&quot;</td>
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<tr>
<td>November 21 - 25</td>
<td>Thanksgiving recess beginning Wednesday at noon.</td>
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<tr>
<td>November 26, 2012</td>
<td>Classes resume.</td>
</tr>
<tr>
<td>December 1, 2012</td>
<td>Deadline for declaring a leave for Semester II. Midyear Completion Celebration.</td>
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<tr>
<td>December 8 - 12</td>
<td>Reading Period (optional and at the discretion of the instructor).</td>
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<tr>
<td>December 12, 2012</td>
<td>Classes end for courses not observing the Reading Period. Last day to drop a course or to request an incomplete from an instructor.</td>
</tr>
<tr>
<td>December 13 - 21</td>
<td>Final Examination Period.</td>
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### Spring 2013

<table>
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<td>January 1, 2013</td>
<td>Last day for payment of charges.</td>
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<tr>
<td>January 21, 2013</td>
<td>Martin Luther King, Jr. holiday. No University exercises.</td>
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<tr>
<td>January 22, 2013</td>
<td>Registration of new students for the second semester (4:00 pm to midnight).</td>
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<td>February 5, 2013</td>
<td>Last day to add a course on-line and/or without a fee (5:00 p.m. deadline).</td>
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<tr>
<td>February 16 - 19</td>
<td>Long weekend. No University exercises.</td>
</tr>
<tr>
<td>February 20, 2013</td>
<td>Classes resume. Last day to add a course, change from audit to credit, or change a grade option declaration (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>March 8, 2013</td>
<td>Mid-semester deadline. Last day to change from credit to audit in a course (5:00 p.m. deadline). Last day to request a Course Performance Report.</td>
</tr>
<tr>
<td>March 23 - 31</td>
<td>Spring Recess.</td>
</tr>
<tr>
<td>April 1, 2013</td>
<td>Classes resume. Deadline for students on leave to confirm readmission for Semester I. Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a &quot;No Concentration&quot; hold placed against their Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>April 1 - 12</td>
<td>Advising period for fall pre-registration. Students in their first through third semesters will need to procure their advising PIN from their advisor in order to register.</td>
</tr>
<tr>
<td>April 5, 2013</td>
<td>Deadline for submission of proposals for undergraduate group study projects (GISPs) for Semester I.</td>
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<tr>
<td>April 11, 2013</td>
<td>Date by which advisors must approve sophomore submitted concentrations in ASK to avoid having a &quot;No Concentration&quot; hold placed against the student’s Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>April 16 - 23</td>
<td>Registration for Semester I, 2013-14. (Note: No student will be permitted to register for his or her fifth semester unless an approved declaration of concentration has been filed.)</td>
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<tr>
<td>April 23, 2013</td>
<td>End of the pre-registration period. &quot;Last day for advisors to approve second concentrations in ASK for students in their 7th semester declaring a second/additional concentration. (5:00 p.m. deadline) Any declarations not &quot;advisor approved&quot; and recorded in Banner by the Office of the Registrar by the 5:00 p.m. deadline will not be honored.&quot;</td>
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<td>April 26 - May 7</td>
<td>Reading Period (optional and at the discretion of the instructor).</td>
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<tr>
<td>April 30, 2013</td>
<td>Deadline for declaring a leave for Semester I.</td>
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<td>May 1, 2013</td>
<td>Theses of candidates for Masters and Ph.D. degrees in May.</td>
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<tr>
<td>May 7, 2013</td>
<td>Classes end for courses not observing the Reading Period. Last day to drop a course (5:00 p.m. deadline) or to request an incomplete from an instructor.</td>
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<td>May 8 - 17</td>
<td>Final Examination Period.</td>
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<td>May 26, 2013</td>
<td>Commencement.</td>
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For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
General Regulations

General academic requirements

Undergraduate degrees:
Information regarding general academic degree requirements are listed under 'The College' section of the University Bulletin as well as on the respective websites of the Office of the Registrar (http://brown.edu/Administration/Registrar/guidelines/undergrad_progs) and the Dean of the College (http://brown.edu/Administration/Dean_of_the_College/degree).

Advanced degrees:
Information regarding Advanced degree requirements for specific academic programs are listed on the Graduate School (http://www.brown.edu/academics/degree-granting) website. Information regarding general and overall guidelines for advanced degrees are also listed on the Office of the Registrar (http://www.brown.edu/Administration/Registrar/guidelines/advanced_progs) website.

Enrollment and course registration

Instructions about enrollment will be sent via e-mail prior to the opening of each semester to all students. To complete enrollment, all requirements of the pertinent administrative offices of the University must be met, including registration for courses, payment of accounts, and arrangements for housing as appropriate. Fees will be charged for failure to meet established deadlines. All students must complete enrollment in order to be eligible to remain at the University.

Students are urged to note carefully the instructions provided at registration in order to assure eligibility for enrollment, proper registration in courses, and to avoid unnecessary payment of Late Registration and Change of Course fees. All registration materials and/or processes are considered official university documents. Any falsification of signatures or other tampering with such forms/processes constitutes a violation of the Academic Code.

All registration-related deadlines for each semester are listed in the 'Academic Calendar' section of the Bulletin and also on the Office of the Registrar website as well as answers to common registration-related questions.

For the full text on the Academic Regulations and Instructions for Registration, see the Registrar’s Office web site at:
http://www.brown.edu/Administration/Registrar/guidelines/index.html

For a tutorial on registration, see:
http://www.brown.edu/CIS/Training/onlinetraining/index.php

To access the most up-to-date course information ('The course information in this Bulletin is current as of October 2012), see:
http://selfservice.brown.edu/menu

Course Credit

The semester course is the unit of credit. This is defined as a course taken for the duration of one semester and, for purposes of evaluation, may be considered the approximate equivalent of four semester hours.

Maximum Course Load and Auditing

No student enrolled in The College or the Graduate School may enroll for more than five Brown credits in a semester. A degree candidate paying full tuition (4 or more enrollment units per semester) and is enrolled in less than five academic credits may be permitted to audit (see below section on auditing) additional course(s). At no time may a student be registered for more than 5 credits/courses including audits.

Enrollment Without Academic Credit

Auditing. An auditor is a student who is registered in a course without earning academic credit upon successful completion under the following conditions: (1) the student must be properly registered for it; (2) the student must pay the usual course fee except as indicated in the next paragraph; (3) the student is entitled to all instruction in the course, including conferences, the criticism of papers, tests, and examinations.

Any student registered on a full-time basis may be permitted to audit additional courses in any semester without charge. The total number of course registrations, including audits, may not exceed five credits.

Non-degree or student paying less than four enrollment units of tuition may choose to audit if they so choose, but the student does so with the understanding that they will pay the equivalent rate as if registered for academic credit.

With the concurrence of the instructor, the fact that a course has been audited shall be entered on the permanent record of any student electing this privilege. The status of a course in which a student has registered may not be changed from audit to credit after the fourth week of classes or from credit to audit after midterm.

Vagabonding. A "vagabond" is a student who, with the permission of the instructor involved, visits a given course occasionally or regularly without payment of fee. It is understood that such a student shall be entitled to participate in classes and activities, including discussions, conferences, and papers, only at the pleasure of the instructor.

Attendance, Grading, Examinations

Attendance

It is in the interest of every student to attend all sessions of the classes in which registered, and each student has an obligation to contribute to the academic performance of all by full participation in the work of each class; however, within such limits as are necessary for the general welfare, a student benefits also from exercising discretion and assuming responsibility for his or her educational progress.

Accordingly, unless the instructor imposes attendance requirements, students are not limited with respect to the number of absences from a course. When, in the instructor’s opinion, a student is abusing the privilege of voluntary attendance, the appropriate dean's office should be notified so that appropriate action may be taken.

A student is always fully responsible for any course work missed because of absences and will be assigned failing grades in final examinations missed without excuse from the dean's office.

No student organization shall make any appointment for undergraduates which conflicts with college exercises unless permission has been obtained from the dean.

Grading System

At the end of each semester final grades are given in semester courses. In all courses, except those designated by the instructor as Mandatory Satisfactory/No Credit, a student may, in consultation with the advisor, elect to be graded on a basis of either Satisfactory/No Credit or A, B, C/ No Credit. A student must for every course taken indicate by the end of the fourth week of the semester which basis for grading is elected.

Any student regularly enrolled in a course, no matter whether for A, B, C/ No Credit or for Satisfactory/No Credit, may request from the instructor a more detailed written evaluation of his or her work. (See Course Performance Report below.) Such supplemental evaluations are intended primarily for the information of the student and do not replace departmental evaluations.

No Credit. This grade is given when courses are not satisfactorily completed. The notation No Credit, and the description of the course in which it is given, are not entered on the official academic transcript.

1. Courses may be designated to be graded on a Mandatory Satisfactory/No Credit basis for all students enrolled on the initiative of the instructor. The designation of a course by an instructor to be graded S/NC only must be announced no later than the first day of classes and entails the responsibility for providing Course Performance Report forms to all students who request them. An asterisk shall accompany the listing on the transcript of any course that has been designated by the instructor to be graded on the basis of S/NC only, with an appropriate explanation of the symbol provided.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
2. In exceptional circumstances, a course may be left incomplete (except for a regularly scheduled final examination—see paragraph 3 below) with the instructor's consent. In such cases, a grade of INC will be assigned provided that the student has filed a request for extension of time to complete the work of the course and the instructor has consented to such a request. Unless an earlier date is specified by the instructor, grades of INC must be made up as follows: for Semester I, by midsemester of Semester II; for Semester II or the for-credit 7-week Summer Session, by the first day of Fall semester. Extensions beyond semester in which the course left incomplete was taken may be granted by the instructor who will indicate this in writing to the registrar. A course not completed by the designated time will be assigned a grade of NC unless the instructor indicates that sufficient work has been completed to justify course credit by submitting, as appropriate, a grade change from INC to A, B, C, or S. A grade of NC assigned in accordance with these procedures may be changed subsequently, but no later than one calendar year after the end of the semester in which the course was taken.

3. If a student is absent from a regularly scheduled final examination for a course, the instructor will assign a grade of ABS. If the absence from the examination is excused by the dean, the student will be permitted to take a Special Examination. The Special Examination will be administered by the Office of the Registrar in accordance with the provisions in the Faculty Rules for such examinations, unless other arrangements are agreed to by the instructor and the student, and communicated to the registrar. If the absence from the final examination is not excused by the dean, the student will receive no credit for the course.

4. A grade of INCABS will be assigned if appropriate and will be resolved in accordance with the provisions of No. 3 and No. 4 above.

Year Courses: A year course is one in which both halves must be passed in order to get credit for the entire year. The grade at the end of the first semester is normally a temporary one. Neither semester may be elected independently without special permission. The final grade submitted at the end of the course covers the work of the entire year and is recorded as the final grade for both semesters. It is normally expected that the second half of a year course will be completed in the second semester of the same academic year in which the first half was taken. If the second half of the year course is not completed at the end of that academic year, the grade for the first semester will become a No Credit. If the student completes the second part of the year course during a later academic year, he or she may need to notify the Registrar's Office, in order to reactivate the first part of the course.

In registering for the second half of a year course, students must register for credit if the first half was taken for credit. Similarly, if registered for audit in the first half, the second half of the course registration must also be as an audit. Exceptions must be approved by both the academic department and the Committee on Academic Standing.

Grade Requirements for Advanced Degrees: A minimum grade of either Satisfactory or C in a 1000 or 2000 level course carries credit toward all advanced degrees. Individual departments may, subject to the approval of the Graduate Council, set higher grade requirements.

Advanced degree candidates may be required to register in courses primarily for undergraduates (numbered 1–999); these courses do not carry advanced degree credit. On occasion, however, and with approval of the student's department and the dean, a student may register for such a course with extra work for advanced degree credit. This course then has the same standing as a 1000-level course and an EX is noted on the transcript. This provision for extra work does not apply to courses of the level of 1–999 taken for graduate credit by students in MD program.

Course Performance Reports: Students, regardless of grade option selected, may request the instructor to complete a Course Performance Report. This request has to be made prior to midsemester. The instructor may decline to complete such a form if it is believed he or she has inadequate information to do so. Particular consideration should be given to requests from students for whom the course is part of their concentration program. Copies of Course Performance Reports will be made available to: (1) the student, (2) the dean's office, and (3) the student's concentration advisor. While not part of the official record, Course Performance Reports may be sent out of the University at the student's request as information on his or her work at Brown University. In such cases, the student must provide copies of all material to be enclosed at the time the transcript is requested.

Concentration Evaluations: Undergraduate students may request a written evaluation of performance in concentration, which will consist of the student's own statement and an evaluation prepared by an appropriate faculty member. The following points may be included in such an evaluation: any special characteristics of the concentration program; information not on the student's official transcript, such as the interest and motivation of the student, the probable capacity for more advanced work, the ability to conduct research, and so forth; and a comment describing the bases on which the evaluation was prepared. If the student elects to have a concentration evaluation prepared, the student's statement and request for departmental evaluation should be submitted to the concentration advisor by the end of the first week of the student's final semester. There is no specific form for concentration evaluations; faculty may use whatever format they choose.

Transcripts: Requests for transcripts must be made either in writing by completing a Transcript Order Form, or electronically. For further information please visit the Office of the Registrar’s website (http://www.brown.edu/Administration/Registrar). Transcripts will be issued only if all financial obligations to the University have been met.

An official transcript consists of a copy of the permanent record listing courses passed and grades received. A statement is added to all transcripts explaining the grading system and indicating that the student may elect to include other material with the official transcript. The student should choose this material in consultation with his or her advisor. The University will mail this material in one envelope along with the official transcript.

Examinations

A final, written examination (at the end of each semester) shall be given in each course numbered under 2000 unless the instructor of a particular course decides to use some other mode of final evaluation. If the written examination is not to be used, the mode of final examination which is to be used shall be made known to the students in the course no later than midterm and, in addition, the department and the registrar shall be informed.

Final Examination Schedule: A pre-defined period at the close of each semester is provided for final examinations for those courses for which such an examination is scheduled. Two examination periods are scheduled for each day. The examination group is determined by, in most cases, the offering time associated with the course (indicated by the figure in parentheses) and also as displayed on Banner Web. The schedule for 2012-2013 is as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>9 am Group</th>
<th>2 pm Group</th>
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<tbody>
<tr>
<td>Dec. 13 Th</td>
<td>9</td>
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<tr>
<td>Dec. 14 F</td>
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<td>Dec. 18 T</td>
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<tr>
<td>Date</td>
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<td>18</td>
<td>8</td>
</tr>
<tr>
<td>May 14 T</td>
<td>14</td>
<td>10</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Exam Excuses: The Office of the Dean of the College is solely responsible for determining whether a student’s absence from a final examination is excused. To ensure equitable treatment of all students, students are excused from exams only for family or medical emergencies or for religious reasons. Please note that students’ travel plans are never an excuse for missing a final exam. Faculty wishing to grant a student an exam excuse may contact Dean Stephen Lassonde or Dean Kathleen McSharry, the deans authorized to grant exam excuses. In emergency situations, students who are unable to contact their professors must contact Dean Lassonde or Dean McSharry, who will determine whether or not an exam excuse is warranted. Course instructors are notified of exam excuses granted by the Dean of the College Office.

Consistent with Brown’s policy on nondiscrimination, students who are unable to take a final examination due to religious observance may arrange to take their final at an alternate time. Consultation is required with the course instructor, the Chaplain’s Office, and the Office of the Registrar, and the arrangements must be made by mid-semester. Students may obtain more information and an application for rescheduling a final due to religious observance from the Registrar’s Office.

Make-up exams for approved exam excuses are administered by the Registrar in the second week of the subsequent fall or spring term. The Registrar’s Office informs students by email of the date, time, and location of make-up exams.

Placement and Achievement Tests in Foreign Languages. Placement tests in the foreign languages are given during Orientation Program in the fall and during the first week of classes in each semester.

All students, before taking college courses in a foreign language in which they have presented entrance credit, must take either a placement test at Brown University or, preferably, a College Board Language Achievement Test in secondary school. Students with outstanding performance on these tests, or on the Advanced Placement Tests of the College Entrance Examination Board, may be admitted to advanced courses without the usual course prerequisites.

Student Code of Conduct

Academic Code Violations

All cases of academic dishonesty among undergraduates, graduate, or medical students, as defined in the Academic Code at Brown University, shall be referred to the dean of the College, Graduate School, or Medical School, or his or her designated representative. A student accused of such an offense shall be notified in writing as soon as possible of the specific charge or charges against him or her before his or her case is considered. The student shall be given the opportunity of a hearing before the designated representative of the dean of the College, Graduate School, or Medical School, and two members of the faculty, at which all relevant facts may be presented. A student shall have the right to appeal any decision to the dean of the College, Graduate School, or Medical School within five business days after receipt of the official letter outlining the case and the decision reached. For definitions of offenses against the Academic Code, procedures, policies, and a list of penalties, see the pamphlet issued by the Office of the Dean of the College, Principles of the Brown University Community: The Academic Code and Non-Academic Disciplinary System.

Nonacademic Discipline

Brown strives to sustain a learning environment that supports individual exploration. Central to this effort are the four primary Principles of the Brown University Community: individual integrity, respect for others, respect for University resources, and respect for the values of teaching, learning, and scholarship. Our community believes that adherence to these principles supports the overall academic mission of the University. Violations of these principles will be handled through the procedures governing the Academic Code and the Non-Academic Disciplinary Procedures. These procedures are designed to address behaviors that impede the educational activity of the University or that infringe upon the rights of others.

Non-academic disciplinary cases are administered by the Office of Student Life, the Peer Community Standards Board, and the University Disciplinary Council. Specific hearing procedures can be found online at www.brown.edu/randr. Printed copies of the Non-Academic Disciplinary Procedures are available from the Office of Student Life.

Curricular Programs

Diversity Perspectives

Diversity Perspectives courses focus primarily or at least substantially on the knowledge and experience of groups that are underrepresented in traditional approaches to knowledge and learning. These courses examine the ways in which disciplines, histories, and paradigms of knowledge are reconfigured by the study of diversity-related intellectual questions.

Diversity Perspectives courses are designated “DVPS” at the end of course descriptions. They may be viewed in Brown Course Search by choosing “Diversity Perspectives” in the Curricular Programs field.

First Year Seminars

First-year seminars ensure close contact between first-year students and faculty members while simultaneously offering a rigorous introduction to the concepts and methods of a particular subject area or department. Seminars have few if any prerequisites and are offered in all areas of the curriculum, from anthropology to physics to literary arts. Students receive regular feedback on the work they produce for the seminars, and seminar faculty often serve as informal mentors for their students long after the class has ended.

First-year seminars are designated “FYS” at the end of course descriptions. A complete list of each semester’s seminars may be viewed in the Brown Course Search by choosing “First-Year Seminars” in the Curricular Programs field. Registration for first-year seminars takes place during the summer prior to students’ matriculation to Brown. Depending on availability, first-year students may also add seminars to their course schedules during pre-registration and shopping periods.

Liberal Learning

The Liberal Learning course list was created to assist students in planning a course of study consistent with the goals of a liberal education. These courses, which are an established part of the Brown curriculum, emphasize synthesis rather than survey and focus on methods, concepts, and values. Reflecting Brown’s conviction that liberal education requires active student involvement, Liberal Learning courses entail extensive student participation through papers, projects, reports, and class discussion.

Liberal Learning Courses are designated with “LILE” at the end of course descriptions. A complete list of each semester’s LILE courses may be viewed in the Brown Course Search by choosing “Liberal Learning” in the Curricular Programs field.

Writing-Designated Courses

Brown students are expected to work on writing in their general studies and in the concentration. Students may begin to fulfill this expectation by taking at least one course that carries the WRIT designation. WRIT courses are offered across the curriculum and help students develop the ability to write well in styles appropriate to different academic disciplines.

A complete list of each semester’s WRIT courses may be viewed in the Brown Course Search by choosing “Writing-Designated Courses” in the Curricular Programs field.

Diversity Perspectives

Fall 2012

Africana Studies

AFRI 0090 S01 14320 An Intro to Africana Studies Corey D. B. Walker
AFRI 0210 S01 14329 Afro Latin Americans Anani Dzidzienyo
<table>
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<th>Course Code</th>
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<td>AFRI 0700 S01 16398</td>
<td>Freedom Films Judy F. Richardson</td>
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<td>AFRI 1050E S01 14326</td>
<td>Playwriting Elmo Terry-Morgan</td>
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<td>AFRI 1060T S01 15586</td>
<td>South Africa since 1990 Nancy J. Jacobs</td>
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<tr>
<td>AFRI 1110 S01 14319</td>
<td>Voices Beneath the Veil Elmo Terry-Morgan</td>
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<tr>
<td>AFRI 1170 S01 15391</td>
<td>Afr. American Women’s History Francoise N. Hamlin</td>
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<tr>
<td>AFRI 1210 S01 15585</td>
<td>Afro-Brazilians + Brazilin Polty Anani Dzidzienyo</td>
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<tr>
<td>AFRI 1620 S01 14322</td>
<td>Black New Orleans: A Research Brenda Marie Osbey</td>
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<tr>
<td>AFRI 1630 S01 14324</td>
<td>Modernist Africana Poetry Brenda Marie Osbey</td>
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<td>American Studies</td>
<td>AMST 1610G S01 16275 Asian American History Robert George Lee</td>
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<td>AMST 1611A S01 14876 20thC US Immigrant Ethnic Lit Richard Alan Meckel</td>
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<td>AMST 1904F S01 16182 SE Asian Refugees/Americans Wanni W. Anderson</td>
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<td>AMST 1904V S01 15770 Decolonizing Minds Naoko Shibusawa</td>
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<td>ANTH 0066D S01 14682 Who Owns the Past? Patricia E. Rubertone</td>
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<td>ANTH 0200 S01 14700 Culture and Human Behavior Sarah Alexander Chase</td>
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<td>ANTH 0301 S01 15661 Gender and Politics Melissa Hackman</td>
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<td>ANTH 0515 S01 16218 Pirates in Atlantic World Felipe Gaitan-Amman</td>
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<td>ANTH 0800 S01 14690 Intro to Linguistic Anthrop Paja L. Faudree</td>
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<td>ANTH 1100 S01 15824 Circumpolar Ethnography Douglas D. Anderson</td>
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<td>ANTH 1211 S01 14688 Cross Cult Perspctve Children Marida C. Hollos</td>
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<td>ANTH 1240 S01 16166 Religion and Culture Bhupriagupt Singh</td>
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<td>ANTH 1250 S01 15692 Film/Anthro:Ident/Imag Ind Soc Lina M. Frazzetti</td>
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<td>ANTH 1880 S01 16165 Magic Mushrooms to Big Pharma Paja L. Faudree</td>
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<td>BioMed-Community Health</td>
<td>PHP 1070 S01 15859 Bdrn of Disease in Devel Cntry T. McGarvey</td>
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<td>PHP 1680I S01 15506 Disability/Health and Community Bruce M. Becker</td>
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<td>Classics</td>
<td>CLAS 1160 S01 15538 Classics of Indian Literature David Bucta</td>
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<td>Comparative Literature</td>
<td>COLT 0510J S01 14931 Modern Arabic Literature Robyn S. Creswell</td>
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<td>East Asian Studies</td>
<td>EAST 1012 S01 14238 20th century Japanese Lit Samual E. Perry</td>
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<td>ENGL 0600Q S01 15671 Unstable Subjects Radiclani Clytus</td>
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<td>ENGL 1710M S01 14487 Nationalizing Narratives Daniel Kim</td>
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<td>ENGL 1760P S01 14568 Exper. in Asian Amer. Writing Daniel Kim</td>
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<td>ENGL 1761Y S01 15334 Issues in World Literature Madhumita Lahiri</td>
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<td>ENGL 1900R S01 14572 Aesthetics and Sexuality Jacques Khalip</td>
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<td>Environmental Studies</td>
<td>ENVS 1560 S01 16416 Sustenance and Sustainability Kathyn P. DeMaster</td>
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<td>Haitian-Creole</td>
<td>CROL 0300 S01 16230 Advanced Intermediate Creole Patrick Sylvain</td>
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<td>Hispanic Studies</td>
<td>HISP 0730 S01 14627 Early/Contmp Wtrr of Span Amer Jose R. Ortiz Castillo</td>
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<td>Modern Culture and Media</td>
<td>MCM 0901H S01 14424 Uncomfortable Media Hunter Reed Hargraves</td>
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<td>Music</td>
<td>MUSC 0021B S01 14372 Reading Jazz Matthew Richards McGarrell</td>
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<td>MUSC 0021F S01 14374 Popular Music in Latin America Christopher Joshua Tucker</td>
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<tr>
<td>Persian</td>
<td>PRSN 1200 S01 14376 Iranian Cinema Iraj Anvar</td>
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<tr>
<td>Polish</td>
<td>PLSH 0410 S01 16044 Intermediate Polish Magdalena Harrison</td>
</tr>
</tbody>
</table>

**Spring 2013**

**Africana Studies**

AFRI 0990 S01 24944 Black Lavendr-Gay+Lesbn Plays Elmo Terry-Morgan
AFRI 1020C S01 24680 Afro-Luso-Brazilian Triangle Anani Dzidzienyo
AFRI 1050E S01 24694 RPM Playwriting Elmo Terry-Morgan
AFRI 1050Q S01 24687 New Narratives in Afr Amer Hist Wanda W. Bayeza
AFRI 1060E S01 24689 W African Writs/Poctl Kingdm Anani Dzidzienyo
AFRI 1070 S01 24680 Knowledge, Texts + Methodology Corey D. B. Walker

**American Sign Language**

SIGN 0900 S01 23773 Introduction to Deaf Studies Arkady Belozovskoy

**American Studies**

AMST 1010 S01 24181 Intro to American Studies Matthew Guterf

**Anthropology**

ANTH 0066R S01 25447 Child and Youth Cultures Jessaca B. Leinaweaver
ANTH 0100 S02 25474 Intro to Cultural Anthropology Jessaca B. Leinaweaver
ANTH 0302 S01 25032 Anth of Gender, Globalization TBD
ANTH 1110 S01 25914 Africa in Anthro Perspective Melissa Hackman
ANTH 1151 S01 24046 Ethnographies Muslim Mid East Ian B. Straughn
ANTH 1224 S01 25028 Human Trafficking Kay B. Warren
ANTH 1229 S01 25918 Democracy + Difference TBD
ANTH 1310 S01 24053 Anthro Perspctv Intmt Hlth Daniel J. Smith
ANTH 1810 S01 24051 Language and Power Paja L. Faudree

**BioMed-Community Health**

PHP 1070 S01 15859 Bdrn of Disease in Devel Cntry T. McGarvey
PHP 1680I S01 15506 Disability/Health and Community Bruce M. Becker

**Classics**

CLAS 0850 S01 24870 Mythology of India James L. Fitzgerald
CLAS 0855 S01 25542 The Bhagavad Gita James L. Fitzgerald

**Education**

EDUC 0410E S01 24866 Empowering Youth Deborah Rivas
EDUC 0410E S02 25876 Empowering Youth Deborah Rivas
EDUC 1050 S01 24860 Hist of Africn-Americn Educatn Tracy L. Steffes
EDUC 1560 S01 25599 Philosophy of Education Jennifer L. Lindsay

**English**

ENGL 0610E S01 25076 Postcolonial Literature Olakunle George
ENGL 0800A S01 24607 City Novels Ethel Tamar Katz
ENGL 0800I S01 24608 Global South Asia Madhumita Lahiri
ENGL 1710I S01 24614 Harlem Renaissance Rolland D. Murray
ENGL 1710J S01 24615 Modern African Literature Olakunle George
ENGL 1761R S01 25076 Non-Fiction of Daniel Kim
ENGL 1900C S01 24535 Slavery’s Optic Glass Radiclani Clytus

**Ethnic Studies**

ETHN 1892 S01 24628 Race Class Gendr Latino Cmnty Anthony DeSales Affigne

**Gender and Sexuality Studies**

GSNS 0090C S01 23825 Reproductive Health Sarah D. Fox

**Hispanic Studies**

HISP 0730 S01 24010 Early/Contmp Wtrr of Span Amer TBD

**History**

HIST 1971X S01 24765 From Emancipation To Obama Francoise N. Hamlin

**Literary Arts**

LITR 1230J S01 24217 Writing: Material Differences John H. Cayley

**Modern Culture and Media**

MCM 0901H S01 23876 Technologies of Life and Death Michael Ian Litwack

**Persian**

PRSN 1200 S01 23788 Iranian Cinema TBD

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### First Year Seminars

**Fall 2012**

**Public Policy and American Institutions**
PPAI 1701P S01 25820 Inequality Poverty Pub Policy Rebecca Loya

**Religious Studies**
RELS 0825 S01 24848 African American Theology Andre Willis
RELS 1530B S01 23951 Methods/Problems in Islam Nancy Khalek

**Russian**
RUSS 1840 S01 25984 Nabokov Michal Oklot
RUSS 1895 S01 25981 Mihail Bakhtin TBD
RUSS 1917 S01 25983 Communism and Soviet Literature Vladimir Golstein

**Theatre Arts and Performance Studies**
TAPS 1281O S01 24950 Acting Outside the Box Kym Moore
TAPS 1610 S01 25020 Political Theatre of Americas Patricia Ybarra

**First Year Seminars**

**Spring 2013**

**Anthropology**
ANTH 0066D S01 14682 Who Owns the Past? Patricia E. Rubertone
ANTH 0066S S03 16164 Egypt in Revolution Ian B. Straughn

**Archaeology and the Ancient World**
ARCH 0270 S01 15014 Troy: Archaeology of an Epic Sylvian Fachard

**BioMed-Community Health**
PHP 0040 S01 16529 Addiction Studies Bruce M. Becker

**Chemistry**
CHEM 0080B S01 14974 Molecular Structrs in Chem/Bio Paul Gregory Williard

**Classics**
CLAS 0010 S01 15511 The Greeks Stephen E. Kidd

**Cognitive, Linguistic and Psychological Sciences**
CLPS 0050A S01 15205 Computng as in Brains/Computrs James A. Anderson
CLPS 0050B S01 15206 Two Visual Systems Fulvio Domini

**Comparative Literature**
COLT 0610D S01 14283 Rites of Passage Arnold Louis Weinstein
COLT 0710I S01 14286 New Worlds Stephanie Merrim

**Education**
EDUC 0400 S01 15485 Amer College/University-1960’s Luther Spoehr

**English**
ENGL 0250F S01 14340 Shakespeare’s Present Tense Stephen Merriam Foley
ENGL 0450E S01 16323 Inventing America James F. Egan
ENGL 0450F S01 14343 Man and Machine Vanessa L. Ryan
ENGL 0650H S01 14399 Realism and Modernism Paul B. Armstrong

**Environmental Studies**
ENV S070C S01 14480 Transcending Transtpr Impacts Kurt Teichert
ENV S070D S01 16454 Misusing Scientific Info Cornelia Dean

**Gender and Sexuality Studies**
GNSS 0090B S01 14829 Bodies out of Bounds Gail E. Cohee

**Geological Sciences**
GEOL 0160G S01 16055 Energy Resources James G. Hirth

**Hispanic Studies**
HISP 0750M S01 16172 The Spanish Civil War Beth W. Bauer

**History**
HIST 0970S S01 15286 Sport in American History Howard P. Chudacoff
HIST 0971G S01 15663 Age of Revolutions, 1760-1824 Jeremy R. Mumford
HIST 0971H S01 16344 Alchemy Tara E. Nummedal

**Italian Studies**
ITAL 0751 S01 14472 Machiavelli in Int Context Caroline Castiglione

**Judaic Studies**
JUDS 0050E S01 15685 From Amsterdam to Istanbul Adam Teller
JUDS 0050G S01 16334 Angels and Demons Miryam T. Brand

**Literary Arts**
LITR 0110A S04 14897 Fiction I Nick Potter
LITR 0110B S03 14900 Poetry I Dong Li
LITR 0710 S01 14914 Writers on Writing Seminar Annette R. Gladman

**Music**
MUSC 0021B S01 14372 Reading Jazz Matthew Richards McGarrell
MUSC 0021C S01 14359 Bach Louis Frederick Jodry
MUSC 0021F S01 14374 Popular Music in Latin America Christopher Joshua Tucker
MUSC 0021H S01 15007 Manifestos Dana A. Gooley

**Political Science**
POLS 0820D S01 16348 Freedom Joshua Bandoch

**Portuguese and Brazilian Studies**
POBS 0810 S01 15046 Cross-Cultural Identities Patricia I. Sobral
POBS 0820 S01 15256 "Coming Out" Jewish, Gay, Black Nelson H. Vieira
POBS 0910 S01 15049 On the Dawn of Modernity Onesimo T. Almeida

**Public Policy and American Institutions**
PPAI 0700J S01 16378 Comparative Policies Andrew Pennock

**Religious Studies**
RELS 0020 S01 14528 Death/Afterlife in Bibcl Trd Saul Olyn

**Russian**
RUSS 0320A S01 14946 Brothers Karamazov/Art of Novl Svetlana Evdokimova

**Sociology**
SOC 0300D S01 15962 Who Am I? Gregory C. Elliott
SOC 0300J S01 14433 Becoming Adults David P. Lindstrom

**Spring 2013**

**Anthropology**
ANTH 0066R S01 25447 Child and Youth Cultures Jessaca B. Leinaweaver

**BioMed-Community Health**
PHP 0030 S01 25164 Health of Hispaniola Timothy M. Empkie

**Biology**
BIOL 0150A S01 24016 Tech/Anlsys DNA-based Biotech Jody Hall
BIOL 0150C S01 24002 Scndary Metabolites Med Plants Fred V. Jackson
BIOL 0150D S01 24071 Techq in Regenerative Mdcne Beth Anne Zielinski-Habershaw
BIOL 0190S S01 24037 Phase Hunters, Part II Peter R. Shank

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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<tr>
<th>Course Code</th>
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<td>AMST 1612Q</td>
<td>Writing / Power Beverly Haviland</td>
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<td>AFRI 0090</td>
<td>Africana Studies Corey D. B. Walker</td>
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<td>AMST 15767</td>
<td>American Women’s History Francoise N. Hamlin</td>
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<td>BEVH 0010</td>
<td>Anthropology Andrea E. Murray</td>
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<td>BEVH 0020</td>
<td>Culture and Human Behavior Sarah Alexander Chase</td>
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<td>BEVH 0030</td>
<td>Culture and Health Sherine F. Hamdy</td>
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<td>BEVH 0050</td>
<td>Gender and Politics Melissa Hackman</td>
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<td>BEVH 0051</td>
<td>Intro to Arch and Prehistory Douglas D. Anderson</td>
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<tr>
<td>BEVH 0052</td>
<td>Pirates! in Atlantic World Felipe Galan-Ammann</td>
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<tr>
<td>BEVH 0080</td>
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<tr>
<td>BEVH 1240</td>
<td>Religion and Culture Bhrigupati Singh</td>
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<td>BEVH 1250</td>
<td>Film/Anthro:Ident/Imag Ind Soc Lina M. Fruzzetti</td>
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<td>Ancient Maya Writing Stephen D. Houston</td>
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<td>BEVH 1880</td>
<td>Magic Mushrooms to Big Pharma Paja L. Fuadree</td>
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<tr>
<td>BEVH 1612Q</td>
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</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Judaic Studies
JUDS 1450 S01 14228 Qumran and the Dead Sea Scrolls Katharina M. Galor

Modern Culture and Media
MCM 0110 S01 15996 Introduction to Modern Culture Lynne Joyrich
MCM 0260 S01 14390 Cinematic Coding/Narrativity Philip Rosen
MCM 0901H S01 14424 Uncomfortable Media Hunter Reed Hargraves
MCM 1700N S01 14316 Open Source Culture Mark A. Tribe
MCM 1700P S01 14461 Radical Media Mark A. Tribe

Music
MUSC 0021B S01 14372 Reading Jazz Matthew Richards McGarrell
MUSC 0021F S01 14374 Popular Music in Latin America Christopher Joshua Tucker
MUSC 0200 S01 14357 Computers and Music Todd E. Winkler
MUSC 1250 S01 14352 Sound Design James R. Moses
MUSC 1915 S01 15074 Music, Mediation, Circulation Christopher Joshua Tucker

Religious Studies
RELS 0065 S01 23921 On Being Human Thomas A. Lewis
RELS 0068 S01 23923 Religion and Torture Stephen S. Bush
RELS 0825 S01 24848 African American Theology Andre Willis
RELS 1360 S01 24573 Stud in Early Christ Divinity Nicola F. Denzey
RELS 1530B S01 23961 Methods/Problems in Islam Nancy Khalek

Science and Society
SCSO 1550B S01 15929 Neuroethics Jeffrey S. Poland

Spring 2013

Africana Studies
AFRI 1360 S01 24680 Knowledge, Texts + Methodology Corey D. B. Walker

American Studies
AMST 1010 S01 24181 Intro to American Studies Matthew Gutner

Anthropology
ANTH 0100 S01 25247 Intro to Cultural Anthropology Jessaca B. Leinaweaver
ANTH 0302 S01 25032 Anth of Gender, Globalization TBD
ANTH 1110 S01 25914 Africa in Anthro Perspective Melissa Hackman
ANTH 1151 S01 24046 Ethnographies Muslim Mid East Ian B. Straughn
ANTH 1221 S01 25933 Anthropology of Masculinity Melissa Hackman
ANTH 1224 S01 25028 Human Trafficking Kay B. Warren
ANTH 1229 S01 25918 Democracy + Difference TBD
ANTH 1310 S01 24053 Anthro Perspctv Intmtl Hist Daniel J. Smith
ANTH 1620 S01 24050 Global Historical Archaeology Colin Arms Porter
ANTH 1621 S01 25151 Material Culture Practicum Patricia E. Rubertone
ANTH 1720 S01 24048 The Human Skeleton Andrew K. Scherer
ANTH 1720 S02 24049 The Human Skeleton Andrew K. Scherer
ANTH 1810 S01 24051 Language and Power Paja L. Faudree

Applied Mathematics
APMA 1200 S01 24778 Operanops Rsrch-Problistc Modla Boris L. Rozovsky

Archaeology and the Ancient World
ARCH 0030 S01 24360 Art in Antiquity: An Intro Omur Harmansah

BioMed-Community Health
PHP 0310 S01 25045 Health Care in US Ira B. Wilson

Biology
BIOL 0190H S01 24017 Plants, Food, and People Peter Heywood
BIOL 0200 S01 24018 Foundation of Living Systems Raymond Miller

Cognitive, Linguistic and Psychological Sciences
CLPS 0050G S01 25544 Pidgins and Creoles Laura Kertz
CLPS 0200 S01 24527 Human Cognition Steven A. Sloman
CLPS 0510 S01 24528 Perception, Illusion, Vis Art William H. Warren
CLPS 0800 S01 24531 Language and the Mind James L. Morgan

Comparative Literature
COLT 0710C S01 24547 Intro to CS for Hum + Soc Sci Thomas W. Doepner
COLT 1800 S01 24821 Cybersecurity and Intml Reis John E. Savage

Education
EDUC 1560 S01 25599 Philosophy of Education Jennifer L. Lindsay

English
ENGL 0210I S01 25057 The Arrival of English Stephen Merriam Foley
ENGL 0400A S01 24601 Introduction to Shakespeare Jean Feerick
ENGL 0450A S01 24605 Hawthorne and James Stuart Burrows
ENGL 1360 S01 25277 Eco-Shakespeare Jean Feerick
ENGL 1560A S01 24611 Jane Austen and George Eliot Ellen Frances Rooney
ENGL 1561O S01 24715 Lincoln, Whitman, Civil War Philip Gould
ENGL 1761P S01 24617 Yeats, Pound, Eliot Mutlu Konuk Blasing
ENGL 1761R S01 25078 Non-Fiction of Daniel Kim

Hispanic Studies
HISP 0730 S01 24010 Early/Contmp Wrtr of Span Amer TBD

History
HIST 1430 S01 24748 Truth on Trial Caroline Castiglione

History of Art and Architecture
HIAA 0100 S01 25082 Intro Design Studio Dietrich Neumann

Modern Culture and Media
MCM 0750 S01 23872 Digital Art Mark A. Tribe
MCM 0901G S01 23873 Digital Cul and Art after 1989 Andrew Evan Lison
MCM 0901I S01 23876 Technologies of Life and Death Michael Ian Litwack
MCM 1700R S01 23885 The Art of Curating Mark A. Tribe

Persian
PRSN 1200 S01 23788 Iranian Cinema TBD

Religious Studies
RELS 0065 S01 23921 On Being Human Thomas A. Lewis
RELS 0068 S01 23923 Religion and Torture Stephen S. Bush
RELS 0825 S01 24848 African American Theology Andre Willis
RELS 1360 S01 24573 Stud in Early Christ Divinity Nicola F. Denzey
RELS 1530B S01 23961 Methods/Problems in Islam Nancy Khalek

Russian
RUSS 1840 S01 25984 Nabokov Michal Oklot
RUSS 1917 S01 25983 Communism and Soviet Literature Vladimir Golstein

Science and Society
SCSO 1400 S01 25270 Sci + Soc: Theories/Controvers Jeffrey S. Poland

Writing-Designated Courses
Fall 2012

Africana Studies
AFRI 0090 S01 14320 An Intro to Africana Studies Corey D. B. Walker
AFRI 0600 S01 15388 Race, Gender, + Urban Politics Keisha-Khan Y. Perry
AFRI 0620 S01 14322 African-American Life City Patricia L. Rose
AFRI 1060T S01 15586 South Africa since 1990 Nancy J. Jacobs
AFRI 1110 S01 14319 Voices Beneath the Veil Elmo Terry-Morgan

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Environmental Studies
ENVS 1420 S01 24185 Environmental Journalism Seth A. Zuckerman
ENVS 1929 S01 25819 The Fate of the Coast Cornelia Dean
ENVS 1965 S01 24194 Environmental Schls/Comm Heather M. Leslie

Ethnic Studies
ETHN 0090A S01 25825 The Border/La Frontera Evelyn Hu-Dehart

Gender and Sexuality Studies
GNSS 0090C S01 23825 Reproductive Health Sarah D. Fox
GNSS 0120 S01 23824 Intro Gendr/Sexuality Studies Deborah F. Weinstein

Geological Sciences
GEOL 0240 S01 24946 Earth:Evoltn of Habitbl Planet Timothy D. Herbert

German Studies
GRMN 0400 S01 23982 Intermediate German II Jane Sokolosky
GRMN 0400 S02 23983 Intermediate German II Jane Sokolosky
GRMN 0600B S01 24894 Was ist Deutsch? Zachary Sng
GRMN 1340M S01 24625 Kafka's Writing Zachary Sng

Hispanic Studies
HISP 0730 S01 24010 Early/Contmp Wrtr of Span Amer TBD
HISP 0740 S01 24011 Intensive Survey of Spanish Lit TBD

History
HIST 1220 S01 24746 Eur Intell/Cult Hist1880-1914 Mary Gluck
HIST 1340 S01 24748 Truth on Trial Caroline Castiglione
HIST 1977Z S01 25837 An Idea Through History Lauri M. O. Tahtinen
HIST 1992 S01 25275 History Honors Workshop Robert Douglas Cope
HIST 1992 S02 25276 History Honors Workshop Robert Douglas Cope
HIST 1994 S01 25279 History Honors Thesis Part II Robert Douglas Cope

History of Art and Architecture
HIAA 0750 S01 24038 Early 19th Cent European Art K. Dian Kriz

International Relations
INTL 1800V S01 24650 US in World Politics Linda B. Miller
INTL 1802B S01 25772 Korean Politics and Security TBD

Italian Studies
ITAL 1020 S01 24255 Boccaccio's Decameron Ronald L. Martinez

Judaic Studies
JUDS 0980V S01 23668 Modern Jewish Family Adam Teller
JUDS 1440 S01 23672 Synagogues, Churches + Mosques Katharina M. Galor

Literary Arts
LITR 0110A S01 24199 Fiction I TBD
LITR 0110A S02 24200 Fiction I TBD
LITR 0110A S03 24201 Fiction I TBD
LITR 0110A S04 24202 Fiction I TBD
LITR 0110B S01 24203 Poetry I TBD
LITR 0110B S02 24204 Poetry I TBD
LITR 0110B S03 24205 Poetry I TBD
LITR 0110B S04 24206 Poetry I TBD
LITR 0110D S01 24207 Electronic Writing I TBD
LITR 0110E S01 24209 Screenwriting I TBD

LITR 0210A S01 24210 Fiction Writing II TBD
LITR 0210A S02 24211 Fiction Writing II Joanna E. Howard
LITR 0210B S01 24212 Poetry Writing II TBD
LITR 0210D S01 24213 Electronic Writing II TBD
LITR 0210E S01 24215 Screenwriting II TBD
LITR 0710 S01 24228 Writers on Writing Seminar Peter Gale Nelson
LITR 0999 S01 24234 Graphic Novels and Comic Maste Joanna E. Howard
LITR 1010A S01 24229 Advanced Fiction Meredith Steinbach
LITR 1010A S02 25526 Advanced Fiction John Edgar Wideman
LITR 1010B S01 24254 Advanced Poetry Leigh Cole Swensen
LITR 1010F S01 24221 Advanced Translation Forrest Gander
LITR 1010G S01 24216 Cave Writing John H. Cayley
LITR 1150G S01 25064 Books by Hand Annette R. Gladman
LITR 1150J S01 24259 The Cinematic Essay Carole Maso

Philosophy
PHIL 0010 S01 24405 The Place of Persons David P. Christensen
PHIL 0360 S01 24408 Early Modern Philosophy Charles Larmore
PHIL 0560 S01 24519 Political Philosophy David Estlund
PHIL 0880 S01 24406 Ethical Themes Amer Short Story Felicia Nimue Ackerman
PHIL 1750 S01 24412 Epistemology David P. Christensen

Physics
PHYS 0560 S01 23892 Experiments in Modern Physics Gang Xiao
PHYS 1560 S01 23896 Modern Physics Laboratory Xinsheng Sean Ling
PHYS 1600 S01 23897 Computational Physics Robert A. Pelcovits

Political Science
POLS 1821S S01 25908 Women and Politics Heather Silber Mohamed
POLS 1822X S01 25839 Technology + International Pol Jordan N. Branch
POLS 1822Z S01 25841 Race Attitudes and US Politics Michael S. Tesler
POLS 1823C S01 25863 Ancient Political Thought Sharon R. Krause

Religious Studies
RELS 0065 S01 23921 On Being Human Thomas A. Lewis
RELS 1390 S01 24573 Stud in Early Christn Diversity Nicola F. Denzey
RELS 1430 S01 23950 Classics East Asian Buddhism Janice T. Anderson Sawada

Russian
RUSS 1300 S02 25204 Russian Lit in Translation II Vladimir Golstein
RUSS 1917 S01 25983 Communism and Soviet Literatur Vladimir Golstein

Science and Society
SCSO 1400 S01 25270 Sci + Soc: Theories/Controvers Jeffrey S. Poland

Sociology
SOCI 0300E S01 23713 HIV/AIDS Politics, Cultr + Soc Nitsan Chorev
SOCI 0300F S01 23789 Unequal From Birth Margot Irving Jackson
SOCI 0300G S01 25522 Populations in Danger Dennis Hogan
SOCI 0300K S01 23860 Inequalities and Health Susan Sargent
SOCI 1620 S01 23806 Globalization/Social Conflict TBD
SOCI 1871B S01 25332 Sociolog Perspectives on Poverty Gregory C. Elliott
SOCI 1871D S01 23760 Sociology of Development Jose Itzigsohn
SOCI 1871P S01 23972 Fld Methods in Development Res Gianpaolo Balicchi
SOCI 1871W S01 25732 Geographical Analysis of Soc Rachel S. Franklin
SOCI 1950 S01 23794 Senior Seminar Michael D. Kennedy

Theatre Arts and Performance Studies
TAPS 0200 S01 24844 Playwriting II TBD
TAPS 1240 S01 25017 Perform Histriogrph/Theatr Hst Patricia Ybarra
TAPS 1250 S01 25016 20th-Cent W Theatre/Performanc Spencer Golub

Visual Art
VISI 1800P S01 25113 ArtWork: Professionl Practice Heather Darcy Bhandari

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Africana Studies

AFRI 0090. An Introduction to Africana Studies. This course introduces students to the vibrant and contested field of Africana Studies by critically exploring and analyzing the links and disjunctures in the cultural, political, and intellectual practices and experiences of people of African descent throughout the African diaspora. Beginning with a critical overview of the history, theoretical orientations, and multiple methodological strategies of the discipline, the course is divided into three thematic units that examine intellectuals, politics, and movements; identity construction and formation; and literary, cultural, and aesthetic theories and practices in the African diaspora. DVPS LILE WRIT Fall AFRIO090 S01 14320 MWF 1:00-1:50(06) (C. Walker)

AFRI 0210. Afro Latin Americans and Blackness in the Americas. This course focuses on the position of Blacks in the national histories and societies of Latin America from slavery to the present-day. Emphasis is on a multidisciplinary engagement with issues and the exposure of students to the critical discussion of national images and realities about blackness and Africa-descended institutions and practices. The role of racial issues in national and transnational encounters and the consequences of migration of people and ideas within the hemisphere are explored Fall AFRIO210 S01 14329 Th 2:30-3:50(11) (A. Dzidzienyo)

AFRI 0600. Race, Gender, and Urban Politics. This course will introduce students to the methods and practice of studying black urban life with a primary focus on US cities. We will critically examine the urban cultural studies debates concerned with race, gender, class and sexuality. The approach of the course will be interdisciplinary, drawing upon works from anthropology, literature, history, music, and film. Topics include tourism, immigration, poverty, popular culture, gentrification, violence, and criminalization. WRIT Fall AFRIO600 S01 15388 Th 9:00-10:20(08) (K. Perry)

AFRI 0620. African-American Life in the City. This course examines the social and cultural history of black urban communities by examining the foundation of black communities in Chicago, New York and Los Angeles. We will examine how migration and the intersections of race, class, culture and gender shape life in urban places, reveal the structural forces that define black urban communities, and explore urban African-American expressive forms. Enrollment limited to 45. WRIT Fall AFRIO620 S01 14322 Th 1:00-2:20(10) (P. Rose)

AFRI 0700. Freedom Films. Freedom Films* is a First Year Seminar which will focus on historical documentary films related to the Southern Civil Rights Movement of the 1960s. We will analyze how these films reflect, change, and inform our views of the traditional Civil Rights Movement and how some offer contrasting narratives of that movement. We will also examine how and in what ways the films accurately and adequately reflect the historical realities of the Southern Civil Rights Movement based on readings and research. Enrollment limited to 20 first year students. DVPS FYS Fall AFRIO700 S01 16398 T 4:00-6:20(15) (J. Richardson)

AFRI 0710A. Racial and Gender Politics in Contemporary Brazil. Brazil is commonly understood as an example of a “racially democratic” nation, but as scholars have recently shown, racism permeates all aspects of Brazilian society. This course traces the development of the theorization of race, racial identity and race relations in contemporary Brazil. The approach of the course will be interdisciplinary, drawing upon works from anthropology, literature, history, music, and film. Topics will include colonialism and enslavement, nationalism, social activism and popular culture. We will also consider how Brazilian social relations differ from or conform to other racialized patterns in other nation-states in the Americas. Particular attention will be placed on the intersectionality between race, gender, class, and nation. WRIT Spr AFRIO710A S01 24943 TTh 9:00-10:20(08) (K. Perry)

AFRI 0990. Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre. An interdisciplinary approach to the study of plays that address the identities and issues of black gay men and lesbians and offers various perspectives from within and without the black gay and lesbian artistic communities. Focuses on analysis of unpublished titles. Also includes published works by Baraka, Bullins, Corbitt, Gibson, Holmes, West, and Pomo Afro Homos. Some evening screenings of videotapes. Enrollment limited to 40. WRIT Spr AFRIO990 S01 24944 TTh 10:30-11:50(09) (E. Terry-Morgan)

AFRI 1020C. The Afro-Luso-Brazilian Triangle. Examines three historical components of the South Atlantic in terms of history, culture, and contemporary political and economic consequences. European colonialism in Africa and Brazil constitutes the baseline for this exploration, but the long and tardy nature of Portuguese colonialism in Africa in comparison with other European colonial powers, especially in its post-World War II manifestations, is our starting point. Enrollment limited to 40. Spr AFRIO1020C S01 24688 Th 4:00-6:20(15) (A. Dzidzienyo)

AFRI 1020D. Race, Rights, Rebellion. Provides an in-depth examination of different kinds of social movements. Emphasis will be placed on the theoretical and methodological distinctions among the various kinds of social protests and social movement actors. From anti-slavery revolts to struggles for independence to anti-apartheid movements, key concepts will include power, resistance, subaltern, hegemony, identity politics and consciousness Spr AFRIO1020D S01 24678 M 3:00-5:20(13) (K. Perry)

AFRI 1050A. Advanced RPM Playwriting. Third level of RPM Playwriting; for students that have successfully completed RPM Playwriting and Intermediate RPM Playwriting (workshop). Instructor permission Fall AFRIO1050A S01 14325 Th 4:00-6:20(15) (E. Terry-Morgan) Spr AFRIO1050A S01 24692 Th 4:00-6:20(15) (E. Terry-Morgan)

AFRI 1050D. Intermediate RPM Playwriting. Second level of RPM Playwriting; for students that want to continue developing their RPM plays or want to begin a new project (workshop) Fall AFRIO1050D S01 14327 Th 4:00-6:20(15) (E. Terry-Morgan) Spr AFRIO1050D S01 24693 Th 4:00-6:20(15) (E. Terry-Morgan)

AFRI 1050E. RPM Playwriting. Research-to-Performance Method (RPM) Playwriting guides students through the process of developing new plays that are informed by scholarly research (workshop) Fall AFRIO1050E S01 14328 Th 4:00-6:20(15) (E. Terry-Morgan) Spr AFRIO1050E S01 24694 Th 4:00-6:20(15) (E. Terry-Morgan)

AFRI 1050Q. New Narratives in African American History: The Art and Craft of Poetic and Creative Non-Fiction. This seminar examines various examples of creative and poetic non-fiction, pertaining to race and the African American experience. While touching upon historic examples and precedent, emphasis will be on contemporary works, including the genres of poetry, drama, the narrative, the memoir, the travelogue and the personal essay. The course will explore what these works offer to the knowledge, popularization and perception of black history and to the shaping of cultural dialogue on blackness and race. Enrollment limited to 25 Spr AFRIO1050Q S01 24687 Th 4:00-6:20(15) (W. Bayeza)

AFRI 1060E. West African Writers and Political Kingdom. Do West African writers have a role to play in the changing political landscape of their countries? An examination of the ways and means through which a select group of West African writers have dealt with issues that relate to the role of the state in the management of individual and group relations, the politics of gender, civil and military relations, and the construction of new forms of civil society. Enrollment limited to 20 Spr AFRIO1060E S01 24689 W 3:00-5:20(14) (A. Dzidzienyo)

AFRI 1060G. Black Radical Tradition. This advanced seminar in Africana philosophy will explore the contours of insurgent forms of Africana social and political philosophy. With a temporal focus on the twentieth century, we will concern ourselves with explicating the dominant themes, theoretical orientations, and methodological
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFRI 1060T</td>
<td>South Africa since 1990</td>
<td>4:00-6:20(15)</td>
<td>TTh</td>
<td>12:00-12:50(05)</td>
<td>(E. Terry-Morgan)</td>
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<tr>
<td>AFRI 1090</td>
<td>Black Freedom Struggle Since 1945.</td>
<td>3:00-5:20(14)</td>
<td>MWF</td>
<td>4:00-6:20(15)</td>
<td>(N. Jacobs)</td>
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<tr>
<td>AFRI 1100</td>
<td>Voices Beneath the Veil.</td>
<td>1:00-2:20(10)</td>
<td>TTh</td>
<td>10:00-12:20(12)</td>
<td>(G. Hamlin)</td>
</tr>
<tr>
<td>AFRI 1170</td>
<td>African American Women's History.</td>
<td>3:00-5:20(14)</td>
<td>MWF</td>
<td>3:00-5:20(14)</td>
<td>(H. Morgan)</td>
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<tr>
<td>AFRI 1190</td>
<td>Haiti, &quot;A New World, A Free World&quot;: History, Art, Politics and Revolution.</td>
<td>3:00-5:20(14)</td>
<td>R</td>
<td>3:00-5:20(14)</td>
<td>(B. Bogues)</td>
</tr>
<tr>
<td>AFRI 1210</td>
<td>Afro-Brazilians and the Brazilian Polity.</td>
<td>3:00-5:20(14)</td>
<td>MWF</td>
<td>12:00-12:50(14)</td>
<td>(B. Bogues)</td>
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AFRI 1955. History and Memory in Africana Literature
Focuses on the close reading of nine works by writers of African descent - encompassing a variety of eras, forms and genres, stretching from the slave narrative to more contemporary settings. The thrust is to examine how each writer wrestles with issues of history and memory, with particular attention to the sometimes explicit, sometimes implicit interest in ideas and modes of expression that are rooted in African culture. Enrollment limited to 20 sophomores, juniors, and seniors; preference given to Africana Studies and English concentrators
Fall AFRI1955 S01 14332 M 3:00-5:20(13) (O. Ndibe)
Spr AFRI1955 S01 24679 M 3:00-5:20(13) (O. Ndibe)

AFRI 1970. Independent Reading and Research
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

This course will be a close reading of the various ideas, theories and practices of the thinkers, writers, artists and activists whose work and practices have constituted an Africana intellectual tradition. In conducting this review we will examine questions around the formation and the history of thought and intellectual traditions in general. We will also think about the various fields of knowledge which have shaped Africana thought. The course therefore will spend some time working through the different meanings of intellectual work and critical thought and theory. Enrollment limited to 12 graduate students
Fall AFRI2001 S01 15387 T 5:30-8:30PM(18) (B. Bogues)

AFRI 2002. Theories of Africana Thought: Literary and Expressive Cultures
A preoccupation of Africana Studies involves the central yet highly contested role of the notion of what constitutes black culture in the modern world. To what degree can we claim aesthetic and other distinctions between black cultures in the Diaspora and other modern western cultural practices and expressive forms? What role did enslavement, forced migration and segregation play in shaping Africana culture in the modern west? These cultural debates which played a central role in literary, musical, philosophical, artistic, historical and sociological analyses of the culture of people of African descent frame this course. Enrollment limited to 12 graduate students
Spr AFRI2002 S02 24684 M 3:00-5:20(13) (P. Rose)

AFRI 2101. Africana Studies and Interdisciplinarity
This graduate seminar brings together various methodological and theoretical approaches to interpreting Africana life, culture, thought, and politics. Placing special emphasis on emergent scholarship that shapes and reshapes the discipline of Africana Studies, we examine a selection of humanistic and social scientific studies of various local, national, and international contexts. The texts demonstrate the ways in which innovative interdisciplinary methods are crucial for understanding the complexity of the Africana world. We will give attention to the strategies scholars utilize to formulate their research questions, design their methodologies, and create new ideas that contribute to the advancement of Africana Studies scholarship. Enrollment limited to 20
Fall AFRI2101 S01 16180 M 3:00-5:20(13) (K. Perry)

AFRI 2201. African American Women and Performance Theory
This class is a topical, upper-level elective seminar on African American women and Performance Theory, with an emphasis on common readings and individual research projects. Enrollment limited to 20
Spr AFRI2201 S01 25961 W 6:00-9:00PM (M. Guter)

AFRI 2450. Exchange Scholar Program.

American Studies

AMST 0190. Race, Sex, and Biology: A Cultural History of Differences.
Are your race, gender, and sexual orientation biologically pre-determined? This course traces the history and cultural implications of theories of racial and sexual differences. We examine three "scientific" theories -- Darwinism, eugenics, and genetics -- in popular culture, public policies and social movements, and consider how these social constructs both

AMST 0190X. Gendered Mobility: Migrant Women Workers in a Globalized Economy.
Today's women workers migrate at a historically unprecedented rate. This class looks at Third World women who migrate for work in global cities. We examine their experiences through the intersectional lens of gender, race, class, and nationality. We also question the social, political, and economic forces that drive migration and draw women workers to specific destinations. Finally, we will look at the multiple inequalities these workers confront and the ways in which they negotiate and challenge them. Enrollment limited to 17 first year students and sophomores. WRIT Spr AMST0190XS01 25809 TTh 10:30-11:50(09) (M. Hwang)

From waiting periods to mandatory ultrasounds, a record number of provisions aimed at restricting women's access to abortion were enacted in 24 U.S. states in 2011. Dubbed the "war on women" by numerous observers, these legislative battles evidence the difficulty in determining reproduction's "proper" place in governmental politics. But is there more to this battle than abortion? Beginning with Roe v. Wade, this course explores how welfare, labor, citizenship, the family, religion, and activism alter mainstream conceptions of reproductive politics. Using a variety of sources, including films and websites, we will consider what an expansive reproductive freedom might entail. Enrollment limited to 17 first year students and sophomores. WRIT Fall AMST0191HS01 15734 TTh 2:30-3:50(11) (S. Matthiesen)

AMST 0191I. Mapping the South Asian Diaspora: Citizenship, Identity and Popular Culture.
This course looks at the migration and cultural productions of the South Asian diasporic communities in the U.S. and England. We'll explore how South Asian immigrants navigate questions of citizenship and identity, while maintaining (or disrupting) connections to the South Asian subcontinent. Through an examination of the ways in which gender, nationalism, class, and sexuality are discussed and performed in literature, film and television, we can trouble the idea of a singular way of being South Asian, causing us to question how we read "home" and "abroad." Enrollment limited to 17 first year students and sophomores. WRIT Fall AMST0191I S01 15753 TTh 9:00-10:20(08) (P. Sahni)

In this course students will look critically at cabaret, documentary film, theatre, dance, popular music, and museum exhibitions, rethinking the ways that Black performances have been configured in debates about American identity in the 20th Century. Rather than try to understand Black performance, and performers, in reductive aesthetic and political frameworks, students will read and write about them as heterogeneous and complex. Enrollment limited to 17 first year students and sophomores. WRIT Spr AMST0191JS01 25520 MW 8:30-9:50(02) (M. Salkind)

AMST 0191L. Are You Creative?: The Rise of a Modern Virtue.
Are you creative, or, even, a "creative"? Do you plan to be an entrepreneur, a writer, or an artist? Today, "creativity" is championed by education activists, fringe artists, and corporate CEOs alike. This course gives a critical perspective by tracing the biography of an idea through various fields. We will look everywhere for signs of creativity and focus on the relationship between creativity, work, and economic development, taking of Providence, RI, the "Creative Capital" as an example. We will talk to people involved in various aspects of the city's creative strategy to observe the effects of this powerful idea. Enrollment limited to 17 first year students and sophomores. WRIT Spr AMST0191LS01 25563 TTh 2:30-3:50(11) (S. Franklin)

This course examines how our understanding of one of the most mediated armed conflicts of the twentieth century has changed. Why has "Vietnam" become a metaphor for imperial wars and how has it figured in cultural production within and beyond the United States? Considering photographs, films, and personal narratives beginning during the war
and continuing into the present, we recognize the fictive and flexible nature of history and how even the worst experiences are made available for collective memory and mass consumption. The course works to decenter the United States and takes into account long-range ramifications and multiple voices. Enrollment limited to 17 first year students and sophomores. WRIT

Spr AMST0191S01 25564 TTh 9:00-10:20(08) (C. Ngo)

AMST 1010. Introduction to American Studies: American Icons. Why do certain American photos, novels, and films become 'iconic'?

What does the very word 'icon' mean? Studying a collection of American images, texts, places, and practices, this course investigates the key themes of American Studies. DVPS

Spr AMST1010 S01 24181 MWF 1:00-1:50(06) (M. Guterl)

AMST 1250G. Topics in Material Culture Studies: The Arts and Crafts Movement in America 1880-1920. In the 1880s an international movement to reform the design of buildings and their furnishings took hold in America. Its proponents wanted to improve visual culture in America by advocating the pride and honesty of craftsmanship and by embracing the ideal of unity of design, but more important, they hoped to change the way Americans lived and worked. This course examines the architecture, furniture, silver, ceramics, and printed works of the Arts & Crafts Movement in America from 1880 -1920. Understanding and interpreting material life is emphasized through local field trips and first-hand experience with the collections of the RISD Museum.

Fall AMST1250GS01 15652 TTh 10:30-11:50(09) (R. Emlen)

AMST 1550. Methods in Public Humanities. A survey of the skills required for public humanities work. Presentations from local and national practitioners in a diverse range of public humanities topics: historic preservation, oral history, exhibition development, archival and curatorial skills, radio and television documentaries, public art, local history, and more. Enrollment limited to 50.

Spr AMST1550 S01 24124 MWF 11:00-11:50(04) (S. Lubar)

AMST 1610G. Asian American History. This course focuses on Asian America as a historical subject and on Asian Americans as makers of their own histories. It is loosely chronological but principally organized around the emergence of an Asian American historical voice. Films, personal accounts, and historical analyses will be read. Many of the texts feature photographs, which we will engage primarily as historical documents. Examining the material realities they represent or suggest, we will also probe their political, economic and cultural dimensions. As weapon, commodity and heirloom, photography has been integral to shaping Asian Americans’ visibility and therefore their social position in the United States.

Fall AMST1610GS01 16275 MWF 10:00-10:50(03) (R. Lee)

AMST 1610Z. American Popular Culture. Popular culture is part of everyday life, but also an important site to examine how American identities have been both shaped and reflected in the cultural texts themselves. WRIT

Fall AMST1610ZS01 16311 MWF 12:00-12:50(12) (M. Rymsza-Pawlowska)

AMST 1611Z. The Century of Immigration. Examines in depth the period of immigration that stretched from the 1820s through the 1920s and witnessed the migration of over 36 million Europeans, Asians, Canadians, and Latin Americans to the United States. Explores causal theories of migration and settlement, examines the role of family, religion, work, politics, cultural production, and entertainment in immigrant/ethnic communities, and traces the development and impact of federal immigration policy.

Spr AMST1611ZS01 24179 MWF 2:00-2:50(07) (M. Rymsza-Pawlowska)

AMST 1612Q. Women / Writing / Power. An introduction to American women’s writing and to the development of feminist literary practice and theory. This course will cover a broad historical range from the colonial poets Anne Bradstreet and Phillis Wheatley to contemporary writers Toni Morrison, a Nobel Laureate, and Marilynne Robinson, a Pulitzer Prize winner. Attention to the effects of racial, class, and cultural differences will inform this course that will focus on gender and literature. LILE

Fall AMST1612QS01 15767 TTh 10:30-11:50(09) (R. Bae)

AMST 1612S. Introduction to American Indian Studies (ETHN 1890H). Interested students must register for ETHN 1890H S01 (CRN 24626)

AMST 1612T. Slackers and Hipsters: Urban Fictions, 1850-Present. Slackers and Hipsters surveys the cult of the cool and disaffected in literature and film over two centuries. Beginning with Melville’s “Bartleby the Scrivner,” but also sampling works as varied as Chatterjee’s English August and Kunkel’s Indecision, we’ll examine both the aesthetic and political implications of the “slacker” in his/her ironic, apathetic, and peculiarly alienated view of the world.

Spr AMST1612TS01 25439 TTh 1:00-2:20(10) (R. Clytus)

AMST 1612U. Religion, Politics, and Culture in America, 1865 -Present (HIST 1801). Interested students must register for HIST 1801 S01 (CRN 15289)

AMST 1612V. History of Religion in America, 1600-1865 (HIST 1800). Interested students must register for HIST 1800 S01 (CRN 24755)

AMST 1612W. Rethinking Women’s Bodies and Rights: Transnational Reproductive Politics. This course examines the issues and debates surrounding women’s reproduction in the United States and beyond. It pays special attention to how knowledge and technology travel across national/cultural borders and how women’s reproductive functions are deeply connected to international politics and events abroad. Topics include: birth control, eugenics, population control, abortion, prostitution, reproductive hazards, genetic counseling, new reproductive technologies, midwifery, breastfeeding, and menstruation. Students will analyze historical and contemporary materials concerning women’s reproductive roles, as well as read scholarly studies on reproductive issues in various parts of the world.

Spr AMST1612WS01 25830 MWF 10:00-10:50(03) (A. Takeuchi)

AMST 1700G. Public Memory: Narratives of 9/11. This junior seminar will focus on narratives concerned with the events of 9/11 and their aftermath: documentary, testimony, stories, memoirs, novels, graphic novels and feature films. We will also study and visit some of the memorials and museums that have been proposed or created in conjunction to 9/11 and consider the broader context of public memory and public art. Course work will require a project or research paper that engages the question of the role of the humanities in the creation of the
public memory of catastrophic events. Enrollment limited to 20 junior and senior American Studies concentrators. WRIT
Fall AMST1700G S01 14837 Th 4:00-6:20(15) (B. Haviland)

This junior seminar explores how local community organizations are taking up issues of health and the environment in culturally relevant contexts. We will examine issues of environmental justice, health disparities and the basic tenets of community based participatory research. We will then partner with a local community organization and, depending on need, assist in the design, implementation, and/or evaluation of a program designed to improve the local environment and/or health status of the community. Enrollment limited to 20 junior and senior American Studies concentrators. WRIT
Spr AMST1700L S01 25238 W 3:00-5:20(14) (E. Hoover)

AMST 1800. Honors Seminar.
This seminar is for second-semester junior American Studies concentrators who are interested in writing an honors thesis in their senior year. The outcome of this course will be a proposal for the honors thesis along with a bibliography and a research plan and schedule. Topics covered will be the research methods associated with different disciplines; how to make the thesis interdisciplinary; integrating public projects and new media into a thesis. Open to juniors concentrating in American Studies. Enrollment limited to 20. S/NC
Spr AMST1800 S01 25446 Arranged (M. Rymiszewski-Pawłowska)

AMST 1903G. Oral History and Community Memory.
Students in this seminar will conduct oral history interviews and archival research to create an audio and visual history of one Providence neighborhood. Collected materials will be prepared for public presentation as a walking tour and web site. Enrollment limited to 20 juniors and seniors
Spr AMST1903G S01 24128 T 4:00-6:20(15) (A. Vaik)

AMST 1904F. The American Experience: The Southeast Asian Refugees/Americans.
Explores the complexity of the American experience, the displacements and diasporas of the Vietnamese, the Cambodians, the Hmong, the Lao, and the Lu Mien in America through multiplicity of perspectives and interdisciplinary approach. Special emphases are on the reinvention of new lives in New World, the American-born generation, how the American-ness and the sense of "home" are constructed, defined, and contested through literary and cinematic works, self-representations, and cultural productions written and produced by these new American Americans themselves. Enrollment limited to 20. DVPS
Fall AMST1904F S01 16182 T 4:00-6:20(15) (W. Anderson)

AMST 1904H. The Teen Age: Youth, Society and Culture in Early Cold War America.
An interdisciplinary and multimedia exploration of the experiences, culture, and representation of youth in the United States from the end of World War II through the beginning of the Vietnam War. Enrollment limited to 20 juniors and seniors
Fall AMST1904H S01 14835 M 3:00-5:20(13) (R. Meckel)

AMST 1904J. The Asian American Movement: Communities, Politics and Culture.
In 1969 students at S.F. State College invented a new social category; they called it Asian American. This seminar begins with an examination of the Asian American Movement, its origins and aspirations, its ideological currents, its failures and enduring legacies. But the central question we will ask is, what relevance does the Asian American Movement have for struggles for social justice today? Enrollment limited to 20 juniors and seniors
Spr AMST1904J S01 25779 M 3:00-5:20(13) (R. Lee)

AMST 1904M. Charles Chapin and the Urban Public Health Movement.
Examines the science, politics, and programs of the 19th and early 20th century urban public health movement. Scope will be national but the focus will be on Providence, particularly during the tenure of Charles Chapin as Superintendent of Health. Will result in the mounting of an exhibit illustrating and explaining one of facet of the movement. Enrollment limited to 20 juniors and seniors
Spr AMST1904M S01 24180 Th 4:00-6:20(15) (R. Meckel)

AMST 1904S. Ethnic American Folklife: Continuity and the Creative Process.
The course investigates how folklore and the oral culture of diverse cultural groups have transformed within their texts and in their creative representations and meanings. It looks into the dynamics of cultural continuity and the creative process involved, from oral narratives, foodscape, family lore, the senses of place, and the senses of home. At the juncture of the oral, the written, the popular, and the high tech, what are the new cultural forms, new cultural products, communication milieu and venues negotiated and contested. Anthropological field research methods and training will be a major emphasis of the course. Enrollment limited to 20
Spr AMST1904S S01 25547 T 4:00-6:20(13) (W. Anderson)

AMST 1904U. Museum Collecting and Collections.
This course will explore and examine the methods, practices, and theory of collections management in a museum setting including collections development, museum registration methods, cataloging, collections care, and interpretation. Through readings, discussion, workshops, site visits, and exhibitions, students will explore what it means to be physically and intellectually responsible for museum objects. This course places heavy emphasis on experiential learning and will include several project-based assignments
Fall AMST1904U S01 15823 TTh 1:00-2:20(10) (R. Potvin)

AMST 1904V. Decolonizing Minds: A People’s History of the World.
This seminar will explore the knowledge-production and military-financial infrastructures that maintain empires, as well as the means through which people have either resisted or embraced empire. While some attention will be made to the 19th and early 20th century colonial context, the bulk of the course will focus on the Cold War liberal era to the neoliberal regime that continues today. Possible topics include: popular culture and ideology, the Cold War university, area studies, international anti-war networks, transnational labor activism, the anti-colonial radical tradition, and the Arab Spring/Occupy Movements. Weekly readings; evaluation based on participation and analytical essays. Enrollment limited to 20 juniors and seniors. DVPS
Fall AMST1904V S01 15770 W 3:00-5:20(14) (N. Shibusawa)

AMST 1904W. Native American Environmental Health Movements (ETHN 1890J).
Interested students must register for ETHN 1890J S01 (CRN 15276)

AMST 1904Y. Lincoln, Whitman, and The Civil War (ENGL 1561O).
Interested students must register for ENGL 1561O S01 (CRN 24715)

AMST 1904Z. Old Media New Artists: Innovation and Contingency in African American Culture.
What are the defining characteristics of newness in twentieth-century African American culture? How have black creative artists repurposed their respective disciplines in accordance with and against the shifting proclivities of African American social politics? Through an interdisciplinary focus that considers music, literature, visual arts, and interactive media, this seminar proposes several alternative epistemological frameworks for recognizing the emerging artistry of our time. Enrollment limited to 20 juniors and seniors
Fall AMST1904Z S01 16120 Th 4:00-6:20(15) (R. Clytus)

AMST 1905B. Media and Modern Childhood (GNSS 1960S).
Interested students must register for GNSS 1960S S01 (CRN 25468)

AMST 1906. Independent Reading and Research.
Required of all honors candidates in the senior year. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. S/NC

AMST 2200E. American Orientalism and Asian American Literary Criticism (ENGL 2760Y).
Interested students must register for ENGL 2760Y S01 (CRN 24795)
AMST 2450. Exchange Scholar Program.

Examinations the methodological and theoretical underpinnings of current and past American studies scholarship. Enrollment limited to graduate students with preference given to American Studies graduate students. S/NC
Fall AMST2520 S02 15834 Arranged (S. Smulyan)

AMST 2650. Introduction to Public Humanities.
This class, a foundational course for the MA in Public Humanities with preference given to American Studies graduate students, will address the theoretical bases of the public humanities, including topics of history and memory, museums and memorials, the roles of expertise and experience, community cultural development, and material culture. Enrollment limited to 20 graduate students
Fall AMST2650 S01 14836 W 3:00-5:20(14) (A. Valk)

The course offers an opportunity for RISD and Brown students to work together to understand the growing interdisciplinary field of public art. We will explore the potential of working in the public realm as artists and/or arts administrators. Topics include: pivotal events and artworks that formed the history of public art from the early 20th century to the present; approaches to site-specificity: ideas of community and audience; current debates around defining the public and public space; temporary vs. permanent work; controversies in public art; memorials, monuments, and anti-monuments; case studies; public art administration models, among others. It is both a seminar and a studio; students work individually and together on research, presentations, proposals and public projects. Contact the instructor Janet Zweig (janetzweig@earthlink.net). Enrollment limited to 12 seniors and graduate students. Instructor permission required
Fall AMST2653 S01 14989 M 1:00-5:15(06) (J. Zweig)

Cultural policy is the aggregate of governmental activities in the arts, humanities, and heritage. This seminar explores its history and public/private context and offers practical insights about how to influence cultural policy design, especially methods to achieve public consensus through planning. Students discuss contemporary issues, examine policy planning principles, and learn practical methods through case study to develop policy recommendations. Enrollment limited to 20 seniors and graduate students
Fall AMST2656 S01 14990 T 1:00-3:30(10) (C. Dreeszen)

AMST 2660. Projects in Public Humanities.
Devoted to one or more advanced projects in Public Humanities not covered in detail by the regular courses. Projects in public humanities provide practical, hands-on project and group project management experience that is essential for careers in museums, historic preservation, and cultural agencies. Students will work with faculty advisor to project completion. Written permission and topic description required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. This course is repeatable for credit. Prerequisite: AMCV 2650 or demonstrated ability of equivalent experience. Instructor permission required

AMST 2670. Practicum: Public Humanities.
Practicums in public humanities provide practical, hands-on training that is essential for careers in museums, historic preservation, and cultural agencies. Students will work with faculty to find appropriate placements and negotiate a semester’s or summer work, in general a specific project. Available only to students in the Public Humanities M.A. program
Fall AMST2670 S01 14992 Arranged (A. Valk)
Spr AMST2670 S01 24327 Arranged (A. Valk)

AMST 2680. Practicum in Public Humanities.
Practicums in public humanities provide practical, hands-on training that is essential for careers in museums, historic preservation, and cultural agencies. Students will work with faculty to find appropriate placements and negotiate a semester’s or summer work, in general a specific project. Available only to students in the Public Humanities M.A. program
Fall AMST2680 S01 14993 Arranged (A. Valk)
Spr AMST2680 S01 24331 Arranged (A. Valk)

AMST 2691. Poetry in Service to Schools and the Community.
Poetry in service to the community honors a connection between poetry and wisdom, assumes that poetry is a wisdom medium (vehicle, vessel, conveyance) toward more enlightened thinking and practice. In this way, it is also an ideal medium for extending our study and practice beyond Brown, conducting workshops in schools, community centers, youth detention facilities and elsewhere. The class emphasizes community building, in teaching pairs and classes and workshops throughout Providence, in Renga and workshop groups. Poetry is the connective tissue; building relationships is at the heart of the practice. Students will write and teach. Enrollment limited to 16
Spr AMST2691 S01 25941 Th 4:00-6:20(15) 'To Be Arranged'

AMST 2693. Community Arts with Young People.
Blurring the boundaries between artist and audience, practitioners of community arts have engaged underrepresented audiences who have traditionally relegated to more passive forms of participation, including young people with little access to arts education. This class provides students the opportunity to research and/or to conduct their own community arts projects with young people in Providence. Students will develop a deeper and more critical understanding of theorizing and implementing community arts projects with youth; will examine how to create pedagogic conditions with youth through the arts and humanities, as well as ways to systematically observe, document, and analyze these pedagogies. Enrollment limited to 15
Fall AMST2693 S01 16430 T 3:00-5:20(15) (T. Denmead)

AMST 2695. Museum as Idea.
What should museums be in the 21st ce? Are museums of today relevant to cultural historical, scientific, artistic, political and educational purposes? How can they provide more meaningful encounters with objects to inspire curiosity and to honor their creators? How can museums relate to their diverse communities today? Must they own objects to be museums? Growing from the historical basis for museum theory. We'll suggest alternative directions, create platforms for new perspectives. We'll rely on readings, discussion, and meetings with museum leaders, and on independent creative research. All will be challenged to invent their own concept of "museum". Enrollment limited to 12
Fall AMST2695 S01 16431 F 3:00-5:20(15) (E. Mandle)

AMST 2697. Museum Interpretation Practices.
This course examines current interpretive practices and offers students the opportunity to participate in creating gallery interpretation for the museum context. Questions of material and form; models of attention and perception, the relationship between language and vision; the role of description in interpretation; and what constitutes learning through visual experience will be considered. Throughout the semester students will develop their interpretive practice through a series of workshops, exercises, site visits, and critical discussions. Enrollment limited to 15
Spr AMST2697 S01 25943 W 3:00-5:20 'To Be Arranged'

AMST 2699. Digital Storytelling.
Digital storytelling takes the traditional craft and attributes of telling stories and merges it with diverse digital media. The digital media becomes integral to how and why stories are told. The course will explore digital storytelling in its many forms, including narrated film shorts, movement capture, locative media, digital timelines, DJing, electronic novels, audio documentaries, narrative computer games, podcasting, and blogging among others. The purpose of the course is to introduce students to a broad set of digital tools that will expand their capability to engage diverse publics in the construction and dissemination of knowledge in the arts and humanities. Enrollment limited to 15
Spr AMST2699 S01 25944 M 3:00-5:20(15) (T. Denmead)

AMST 2920. Independent Reading and Research.
Section numbers vary by instructor. Search Banner by instructor name to find the correct section number and CRN to use when registering for this course. You will need instructor permission to register and the course may be repeated with different instructors. Open to American Studies graduate students only. S/NC

AMST 2921. Independent Reading and Research.
Section numbers vary by instructor. Search Banner by instructor name to find the correct section number and CRN to use when registering for this course. You will need instructor permission to register and the course may be repeated with different instructors. Open to American Studies graduate students only. S/NC
be repeated with different instructors. Open to American Studies graduate students only. S/NC

AMTH 2022. Independent Reading and Research.
Section numbers vary by instructor. Search Banner by instructor name to find the correct section number and CRN to use when registering for this course. You will need instructor permission to register and the course may be repeated with different instructors. Open to American Studies graduate students only. S/NC

AMTH 2023. Independent Reading and Research.
Section numbers vary by instructor. Search Banner by instructor name to find the correct section number and CRN to use when registering for this course. You will need instructor permission to register and the course may be repeated with different instructors. Open to American Studies graduate students only. S/NC

AMTH 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

Anthropology

ANTH 0066D. Who Owns the Past?
Examines the role of the past in the present. Using examples from the U.S. and other parts of the world, we will look at how archaeological evidence is implicated in contemporary cultural and political issues. Students will learn that the past is not just the focus of archaeologists' interest and scientific inquiries, but is also a subject romanticized by antiquarians, mobilized in nation-building, marketed for profit, re-enacted as entertainment, consumed by tourists, and glorified in commemoration. Understanding these different and competing valuations, claims, and uses of the archaeological past will provide an introduction to why the past matters in the present and to the future. Enrollment limited to 20 first year students. FYPS DVPS
Fall ANTH0066DS01 14682 M 3:00-5:20(13) (P. Rubertone)

ANTH 0066R. Child and Youth Cultures
This first year seminar addresses childhood from two linked but distinctive theoretical perspectives. First, what is childhood? Rather than assuming it is a universal category, we will explore how childhood has been constructed differently through history and across cultures, in opposition to infancy, youth, and adulthood. Second, who are children? In contrast to conventional representations of young people as passive objects of socialization, we will review anthropological conceptions of children and youth as social actors with respect to identity formation, cultural expression, and political economy. Enrollment limited to 20 first year students. DVPS FYS WRIT
Spr ANTH0066RS01 25447 M 3:00-5:20(15) (J. Leinaweaver)

ANTH 0066S. Contemporary Egypt in Revolution.
On January 25, 2011 protestors in Egypt amassed in Tahrir Square in Cairo with basic demands: Bread, Freedom, Social Equality, and Human Dignity. After hundreds of peaceful protestors were killed at the hands of riot police and hired thugs, eighteen days later, President Husni Mubarak resigned. Yet since then, hundreds more have been killed. Egypt’s revolution continues, and the basic demands are as crucial today as they were at its inception. We will read contemporary Egypt from the perspectives of anthropologists and social historians, and discuss the value of social theory and analysis for understanding current political turmoil. Enrollment limited to 20 first year students. DVPS FYS S/N C
Fall ANTH0066SS03 16164 W 3:00-5:20(14) (J. Straughn)

ANTH 0100. Introduction to Cultural Anthropology.
This course provides an introduction to cultural anthropology, surveying its defining questions, methods, and findings. We will examine the history and utility of anthropology’s hallmark method, ethnography, the long-term immersion of the researcher in the culture under study. We will compare cultural anthropology’s findings and comportment in other cultures to its conclusions and conduct in our own. No prerequisites
Spr ANTH0100 S02 25474 MWF 9:00-9:50(02) (J. Leinaweaver)

ANTH 0110. Anthropology and Global Social Problems: Movements, Mobilities, Migration.
The course introduces anthropological approaches to some of the central problems we face in the globalizing twenty-first century. We will trace both large- and small-scale movements of people, commodities, borders, and pollution to improve our understanding of the complex international, transnational, and local social phenomena that shape the human experience today
Fall ANTH0110 S01 15682 MW 3:00-4:20(13) (A. Murray)

ANTH 0200. Culture and Human Behavior.
The goal is to challenge our beliefs about some taken for granted assumptions about human behavior and psyche by examining cultures with different conceptions of self and cognition. We will examine the issues of the role of nature and nurture in development, the nature of intelligence, coming of age, the association of psychological characteristics with gender and the naturalness of emotions
Fall ANTH0200 S01 14700 W 10:00-10:50(03) (S. Chase)
Fall ANTH0200 S01 14700 MW 10:00-10:50(03) (S. Chase)

ANTH 0300. Culture and Health.
An introduction to the field of Medical Anthropology. Lecture reading and discussion will examine the social context of health and illness, looking at the diverse ways in which humans use cultural resources to cope with disease and develop medical systems. The course will provide an introduction to the overall theoretical frameworks that guide anthropological approaches to studying human health related behavior. Medical anthropology offers a unique and revealing perspective on the cultural diversity that characterizes human experiences of sexuality, disease, aging, mental illness, disability, inequality and death. DVPS LILE WRIT
Fall ANTH0300 S01 14684 TTh 6:30-7:50(14) (S. Hamdy)

ANTH 0301. Gender and Politics.
This course focuses on ideologies of gender and sexuality cross-culturally and how they influence peoples’ involvement in political processes. We begin with a broad working definition of politics-power dynamics and arrangements whereby groups are affected by one another. The course looks at the circumstances under which peoples’ gender and sexual identities are mobilized into social movements, and the conditions and social consequences of public visibility. Our broader aim is to understand ways in which gendered inequalities produce—and are produced by—forms of political exclusion, as well as innovative ways in which people transform existing structures of power
Fall ANTH0301 S01 15661 TTh 9:00-10:20(08) (M. Hackman)

ANTH 0302. Anthropology of Gender and Globalization.
We live in a global world in which the movements of people, goods, and ideas cause productive frictions, transforming the prevailing formations of gender and sexuality. This course examines the intersections of gender and globalization by looking at how globalizing shapes cultural constructions and political configurations of gender, and exploring how an ethnographic focus on gender sheds light on various aspects of globalization. Topics covered include anthropological theory of gender and sexuality, gender and global capital, gender and the (colonial) state, and gender and global politics (including gender activism, human rights, and development). Open to undergraduates only. DVPS LILE
Spr ANTH0302 S01 25032 TTh 1:00-2:20(10) 'To Be Arranged'

ANTH 0500. Discovering the Past: Introduction to Archaeology and Prehistory.
This course is an introduction to the biological origins and cultural developments of mankind over the past 4 millions years. In particular we shall address the following: human evolution, the methods and aims of archaeological research, human dispersal throughout the world, first from Africa to Eurasia, and from there to North and South America, Australia and the Pacific. We will look into hunting and fishing and gathering lifeways. We will study the beginnings and results of settled life, agriculture, and animal domestication, the evolution of complex societies and rise (and fall) of Civilization
Fall ANTH0500 S01 16501 MWF 2:00-2:50(07) (D. Anderson)

The figure of the pirate is an all-time favorite in Western imagination. It has inspired some of the most popular narratives of the past, solidly

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
grounded in classic literature and contemporary visual culture. Focusing on the mid-17th century, the golden age of piracy in the Atlantic World, this course will use historical and archaeological data to investigate the way in which the image of the pirate has been constructed in the West, as an embodiment of cultural, legal, moral and sexual transgression, and as an object of both fascination and fear which is still current in the contemporary, global world. DVPS LILE

ANTH 080. Foragers, Farmers, Feasts, and Famines: An Anthropology of Food
An exploration of the human experience of food and nutrition from evolutionary, archaeological, and cross-cultural perspectives. The course will review the various approaches employed by anthropologists and archaeologists to understand diet and subsistence in the past and present. Starting with the evolutionary roots of the human diet in Plio-Pleistocene Africa, we will trace patterns of human subsistence to the present, including the social and health implications of the agricultural revolution. We will then explore modern foodways in cross-cultural perspective, focusing on the interplay of ecology, politics, technology, and cultural beliefs. DVPS LILE

ANTH 0800. Sound and Symbols: Introduction to Linguistic Anthropology
This introduction to the study of language and culture considers how language not only reflects social reality but also creates it. We'll examine specific cases of broad current relevance, in the process learning how an analytical anthropological approach to language use lays bare its often hidden power. We'll consider how language creates and reinforces social inequality and difference, how language promotes and resists globalization, and how language is used creatively in performance, literature, film, advertising, and mass media. We will also consider how language does important social work in specific contexts, such as classrooms, courtrooms, medical settings, and political campaigns. DVPS LILE

ANTH 1100. Circumpolar Ethnography
An examination of the traditional and modern lifeways of native peoples across the Arctic and subarctic from European Lapland through Siberia, Alaska, Canada, and Greenland. Topics covered are society; ethnic relations; religion (Shamanism); art; and, politics, including issues of land claims and home rule

ANTH 1110. African Issues in Anthropological Perspective
In this course we engage with anthropological literature and films on the diverse ethnicities, cultures, and "traditions" of sub-Saharan Africa. We trace the histories and the processes of cultural, social, and political change, beginning with colonialism and ending with the contemporary period. We will deconstruct and debunk dominant Western ideas of Africa that present it as primitive and characterized by poverty, AIDS, famine, and violence. We will learn about how Africans see and represent themselves through reading ethnographies, engaging with African popular culture, and watching documentary films

ANTH 1151. Ethnographies of the Muslim Middle East
An introduction to ethnographic studies of Middle East, focus on: religion, language, modernity, gender, and political culture. Students will engage in critical examination which anthropologists sought to capture Middle Eastern life, and problems that have pervaded anthropological representation, methodologically and theoretically. You will learn, through the ways anthropologists approach the peoples, ideas, and cultures of the region in ways that complement and contradict the knowledge production of other disciplines, the processes we come to understand cultural difference, and ways this encounter sheds light on our selves and practices. Previous course in Anthropology/ Middle East studies is suggested. Enrollment limited to 25. DVPS LILE

ANTH 1211. Cross Cultural Perspectives on Children
Explores how the behavior and psychological functioning of children are shaped by culture and how different cultures tend to produce children with characteristic personalities, selves, thought patterns and behaviors. Every cultural community provides developmental pathways for children. These pathways are shaped by history and by the goals of parents, communities and children themselves. The course will focus on how human knowledge is transmitted through multiple cultural channels in both informal and formal contexts. This is a service-learning course in which students provide a needed service: Mentoring and tutoring Liberian young people in a literacy program. This will serve as a basis for conducting research on this refugee population and the final paper will be the recording of oral histories from teenagers. Enrollment limited to 30

ANTH 1221. Anthropology of Masculinity
Contemporary anthropological and historical study of masculine identities and practices throughout the world, focusing on topics such as the cultural economies of masculinity, cultural regions and images of manhood, male friendship, machismo, embodied masculinity, violence, power, and sexual fault lines. Prerequisite: Prior course in Social Science or instructor's permission required

ANTH 1224. Human Trafficking, Transnationalism, and the Law
Designed to give students an opportunity to engage in transnational research on social issues through an extended case study of a new generation of international norms that identify and combat "human trafficking." The course format combines seminar discussions, lectures, and small group exercises. Students will learn by doing. As we consider legal instruments, UN and U.S. documentary archives, anti-trafficking media such as films and websites, and the prosecution of criminal networks, we will experiment with alternative methodologies for analyzing them. We will study the relation of texts to the social and political contexts of their production and circulation. Enrollment limited to 30. DVPS LILE WRIT

ANTH 1229. Democracy and Difference: Political Anthropology, Citizenship and Multiculturalism.
In seemingly endless contexts, the term "democracy" is employed toward a wide range of political and social goals. This course examines the question of cultural citizenship - the right to be different while remaining part of the national community - as observable in places where liberal democracy's focus on the individual citizen clashes with communal wishes for collective representations of difference. By reading case studies from multiple locales, this course examines the attempts of democratic regimes to govern varied populations through the lens of political anthropology. DVPS LILE WRIT

ANTH 1236. Urban Life: Anthropology in and of the City
This course examines how anthropologists have worked in the city -- to understand dwelling and lived experience from the center to the margins of society; as well as how anthropologists have contributed to the study of the city -- conceptualizing the city itself in relation to its inhabitants, and working to understand how cities develop, decline, or are sustained. Anchored in key theory, classic texts, and contemporary ethnography, the course traces also the history, present, and possible futures of the discipline. Students learn the methods of urban ethnography, and gain hands-on experience through local field exercises and related writing assignments

ANTH 1240. Religion and Culture
Looking at religion as a mode of thought, we examine theories that attempt to explain the origins, world-wide manifestation, and vitality of myths, rituals, magic, witchcraft, and other ways of thinking and acting that are typically associated with (or against) the concept of religion. Collaterally, we examine the methodologies by which we hope to understand the meaning of these concepts.

ANTH 1250. Film and Anthropology: Identity and Images of Indian Societies
The course examines representation of Indian society in film and anthropological literature. We compare how gender, national identity,
religious practices, and historical events are portrayed in films and anthropological literature. We will explore the relationship between visual and textual, showing how film reflect and make comprehensible anthropological concepts of Indian culture, and creates different images of the society.

Fall ANTH1250 S01 15692 TTh 10:30-11:50(09) (L. Fruzzetti)

ANTH 1255. Anthropology of Disasters.
This course examines disasters from an anthropological perspective. We focus on how disasters have been defined and understood, and work more broadly to see what they tell us about human conditions, vulnerabilities, and capacities for resilience building, survival, and long-term sustainability. Drawing on and comparing case studies from around the world, we also examine the nature of destructive agents; degrees of impact and injury; rescue, relief, and humanitarian responses; and the often slow and uneven process of recovery and resilience building.

Spr ANTH1255 S01 25031 3:00-5:20(14) (P. Rubertone)

ANTH 1310. International Health: Anthropological Perspectives.
This upper-level medical anthropology course focuses on the social and cultural complexity of health problems in developing nations, employing anthropological approaches to public health. International health issues such as HIV/AIDS, malaria, tuberculosis, leprosy, reproductive health, violence, and mental illness will be examined. The historical, political and socio-cultural dimensions of international health problems will be explored through reading ethnographic case studies.

Spr ANTH1310 S01 24053 MWF 1:00-1:50(08) (D. Smith)

ANTH 1620. Global Historical Archaeology.
The course examines historical archaeology as a multidisciplinary approach to the study of the historic past. Draws in recent research from different parts of the world, including North America, South Africa, Australia, the Caribbean, and South America, to illustrate historical archaeology’s contributions to interpreting peoples’ everyday lives and the diversity of their experiences in the post-1500 era.

Spr ANTH1620 S01 24050 TTh 10:30-11:50(09) (C. Porter)

ANTH 1621. Material Culture Practicum.
Combines theory with hands-on study of artifacts from historical archaeological contexts in North and Latin America. Students will gain skills and experience in artifact identification, dating, recording, analysis, and interpretation, and will conduct individual or team research projects on material things as products of everyday life and history. Enrollment limited to 15.

LILE
Spr ANTH1621 S01 25151 Arranged (P. Rubertone)

ANTH 1650. Ancient Maya Writing.
Nature and content of Mayan hieroglyphic writing, from 100 to 1600 CE. Methods of decipherment, introduction to textual study, and application to interpretations of Mayan language, imagery, world view, and society.

Fall ANTH1650 S01 14687 MWF 11:00-11:50(04) (S. Houston)

ANTH 1720. The Human Skeleton.
More than simply a tissue within our bodies, the human skeleton is gateway into narratives of the past--from the evolution of our species to the biography of individual past lives. Through lecture and hands-on laboratory, students will learn the complete anatomy of the human skeleton, with an emphasis on the human skeleton in functional and evolutionary perspective. We will also explore forensic and bioarchaeological approaches to the skeleton. By the course conclusion, students will be able to conduct basic skeletal analysis and will be prepared for more advanced studies of the skeleton from medical, forensic, archaeological, and evolutionary perspectives. Enrollment limited to 20. Not open to first year students.

LILE
Spr ANTH1720 S01 24048 MWF 10:00-10:50(03) (A. Scherer)
Spr ANTH1720 S02 24049 MWF 11:00-11:50(04) (A. Scherer)

ANTH 1810: Language and Power
This course considers how language and power relate to each other in social life. We first consider theoretical approaches to the politics of language use, such as Foucault on discursive formations, Bourdieu on language as social capital, and Bakhtin on the oppression inherent in standard languages. We then consider specific issues, including joking as linguistic resistance, language death and revitalization, the cochlear implant debate, and racializing discourses. We will end with language use in the U.S. "culture wars," covering such topics as the Ebonics controversy, language and electoral politics, hate speech, and English language legislation.

Spr ANTH1810 S01 24051 TTh 10:30-11:50(09) (P. Faukdee)

ANTH 1880. From Magic Mushrooms to Big Pharma: Anthropology of Drugs.
This course considers the social, political, and medical issues associated with illegal and pharmaceutical drugs. Some of the topics we consider are debates over the commercialization and criminalization of hallucinogenic plants such as marijuana, the politics of antiretroviral distribution, the ethics of medical and ethnic tourism, the legacies of colonialism and botanical migrations, "biopiracy" and indigenous knowledge, and critiques of modern food production, including the "locavore movement" and opposition to genetically modified foods. Through it all, we consider how the ways people talk and write about these issues affect concrete realities in daily life. Enrollment limited to 20 juniors and seniors.

DVPSS LILE
Fall ANTH1880 S01 16160 W 3:00-5:20(14) (P. Faukdee)

Looks at the way anthropological methods and theories have interfaced through history to understand the dominant concerns in present-day anthropology. What were the important issues that influenced the discipline’s history? Who were the significant, and not so well known, historic personalities who shaped anthropological practice and gave it its identity? Enrollment limited to 20.

Fall ANTH1900 S01 15689 TTh 4:00-6:20(15) (B. Singh)

ANTH 1901. Anthropology of the Museum.
This course provides an introduction to the history, purposes, transformations, and workings of museums from an anthropological perspective. Topics include collecting and cultural property, politics of representation, identity and belonging, and community engagement. Assignments involve work with collections at the Haffenreffer Museum of Anthropology. The course focuses on museums dedicated to natural and cultural history and on anthropological concerns, but provides a theoretical and practical grounding for thinking about and working in other institutions. It covers the relevance of anthropological training to careers in the museum field, as well as the importance of conducting anthropological investigations in the museum environment. Enrollment limited to 20.

Spr ANTH1901 S01 25034 Arranged "To Be Arranged"

ANTH 1910G. Senior Seminar: Politics and Symbols.
Examination of the key role played by symbols, myth, and ritual in politics. We examine how symbols, myths, and rituals are used to win support, to create political reality, and to form political groups, whether in defense of the status quo or creating movements seeking to overthrow it. The 2012 U.S. presidential and congressional election campaigns receive special attention. Students, in part working in groups, will engage in their own original research both on the 2012 American elections and on a wide variety of other historical and contemporary political developments, from the Arab Spring to the Occupy Movement. Enrollment limited to 25. Prerequisites: ANTH 1621 or 1900; and either ANTH 1940 or 1950.

Fall ANTH1910G S02 16165 W 3:00-5:20(14) (D. Kertzer)

ANTH 1940. Ethnographic Research Methods.
To understand the different theoretical assumptions that shape research efforts; to examine how hypotheses and research questions are formulated; and to appreciate the ethical and scientific dimensions of research by hands-on experience in fieldwork projects. Prerequisite: One Anthropology course.

Fall ANTH1940 S01 14691 M 3:00-5:20(13) (L. Fruzzetti)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

A seminar investigating some themes in the history of anthropological theory. Starting with the delineations of the scope and nature of social science by Marx, Durkheim, and Weber, the seminar then considers various explorations of the concepts of structure, function, and agency, concluding with Bourdieu’s reformulation of social anthropology for a new generation in the form of practice theory.

ANTH 2020. Methodology of Anthropological Research. A seminar on the methodological problems associated with field research in social and cultural anthropology. Designed to help students prepare for both summer and dissertation research.

ANTH 2100A. Contemporary Ethnography on Latin America and Beyond. This graduate seminar addresses contentious and creative issues in anthropology by focusing on the science and art of ethnography. Readings feature new transnational ethnographic writers. Topics: alternative research framing, the relation of field research to writing, representing violence and porous borders in practice.

ANTH 2110. Critical Perspective: Social and Cultural Issues in Africa. Focuses on debates over significant social and cultural issues in Africa. Historical and cultural continuities are premised as a way of understanding political, economic, and religious complexities in present-day Africa.

ANTH 2210. Analysis of Social Structure. This course will discuss the analysis of kinship and the construction of the person cross-culturally.

ANTH 2300. Anthropological Demography. A seminar devoted to the investigation of the interface of anthropology (especially sociocultural anthropology) and demography. A wide variety of demographic topics-tobacco, mortality, marriage, migration-are considered, and the links between anthropological and demographic writings on and approaches to these areas are examined.

ANTH 2450. Exchange Scholar Program. ANTH 2500A. Problems in Archaeology: Culture Contact and Colonialism. Explores the theoretical discourses shaping anthropological approaches and defining archaeological projects on culture contact and colonialism. Attention will be given to examining colonial encounters between Europeans and indigenous peoples as ongoing processes rather than particular historical moments, and to looking at recent efforts at decolonizing anthropological practice.

ANTH 2501. Principles of Archaeology. Examines theoretical and methodological issues in anthropological archaeology. Attention is given to past concerns, current debates, and future directions of archaeology in the social sciences.

ANTH 2520. Mesoamerican Archaeology and Ethnohistory. Seminar focusing on current issues in the archaeology and history of Mesoamerica, including Mexico and Northern Central America. Draws on rich resources at Brown, including the John Carter Brown Library.

ANTH 2800. Linguistic Theory and Practice. An introduction to theoretical and methodological issues in the study of language and social life. We begin by examining semiotic approaches to language. We turn to classical research on language as a structured system - covering such topics as phonology and grammatical categories - but we focus on the implications of such work for broader social scientific and humanistic research. We then consider areas of active contemporary research, including cognition and linguistic relativity, meaning and semantics, pronouns and deixis, deference and register, speech acts and performativity, interaction, verbal art and poetics, reported speech, performance, and linguistic ideology.
APMA 0350. Methods of Applied Mathematics I, II.
Covers the same material as APMA 0330, albeit of greater depth. Intended primarily for students who desire a rigorous development of the mathematical foundations of the methods used, for those students considering one of the applied mathematics concentrations, and for all students in the sciences who will be taking advanced courses in applied mathematics, mathematics, physics, engineering, etc. Three hours lecture and one hour recitation. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or APMA or AP68 for a minimum score of 5.

Fall APMA0350 S01 15341 MWF 12:00-12:50(12) (Y. Guo)
Spr APMA0350 S01 24709 MWF 12:00-12:50(05) (H. Dong)

APMA 0360. Methods of Applied Mathematics I, II.
Covers the same material as APMA 0340, albeit of greater depth. Intended primarily for students who desire a rigorous development of the mathematical foundations of the methods used, for those students considering one of the applied mathematics concentrations, and for all students in the sciences who will be taking advanced courses in applied mathematics, mathematics, physics, engineering, etc. Three hours lecture and one hour recitation. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or AP68 or AP68 for a minimum score of 5.

Fall APMA0360 S01 15342 MWF 12:00-12:50(12) (T. Nguyen)
Spr APMA0360 S01 24710 MWF 12:00-12:50(05) (G. Menon)

Basic mathematical methods commonly used in the neural and cognitive sciences. Topics include: introduction to probability and statistics, emphasizing hypothesis testing and modern nonparametric methods; introduction to differential equations and systems of differential equations, emphasizing qualitative behavior and simple phase-plane analysis. Examples from neuroscience, cognitive science, and other sciences. Prerequisite: MATH 0100 or equivalent.

Fall APMA0410 S01 15344 MWF 2:00-2:50(07) (L. Bienenstock)

APMA 0650. Essential Statistics.

Spr APMA0650 S01 24722 Th 1:00-2:20(10) (H. Wang)

APMA 1070. Quantitative Models of Biological Systems.
Quantitative dynamic models help understand problems in biology and there has been rapid progress in recent years. The course provides an introduction to the concepts and techniques, with applications to population dynamics, infectious diseases, enzyme kinetics, aspects of cellular biology. Additional topics covered will vary. Mathematical techniques will be discussed as they arise in the context of biological problems. Prerequisites: APMA 0330, 0340 or 0350, 0360, or written permission.

Fall APMA1070 S01 15345 MWF 11:00-11:50(04) (B. Sandstede)

APMA 1080. Inference in Genomics and Molecular Biology.
Sequencing of genomes has generated a massive quantity of fundamental biological data. We focus on drawing traditional and Bayesian statistical inferences from these data, including: alignment of biopolymer sequences; prediction of their structures, regulatory signals; significance in database searches; and functional genomics. Emphasis is on inferences in the discrete high dimensional spaces. Statistical topics: Bayesian inference, estimation, hypothesis testing and false discovery rates, statistical decision theory. Prerequisite: APMA 1650 or MATH 1610; BIOL 0200 recommended; Matlab or programming experience. Enrollment limited to 20.

Spr APMA1080 S01 24723 Th 10:30-11:50(09) (C. Lawrence)

APMA 1170. Introduction to Computational Linear Algebra.
Focuses on fundamental algorithms in computational linear algebra with relevance to all science concentrators. Basic linear algebra and matrix decompositions (Cholesky, LU, QR, etc.), round-off errors and numerical analysis of errors and convergence. Iterative methods and conjugate gradient techniques. Computation of eigenvalues and eigenvectors, and an introduction to least squares methods.

Fall APMA1170 S01 15346 Th 10:30-11:50(09) (J. Guzman)

APMA 1180. Introduction to Numerical Solution of Differential Equations.

Spr APMA1180 S02 24777 Th 10:30-11:50(09) (J. Hesthaven)

Basic probabilistic problems and methods in operations research and management science. Methods of problem formulation and solution. Markov chains, birth-death processes, stochastic service and queueing systems, the theory of sequential decisions under uncertainty, dynamic programming. Applications. Prerequisite: APMA 1650 or MATH 1610, or equivalent.

Spr APMA1200 S01 24778 MWF 2:00-2:50(07) (B. Rozovsky)

An introduction to the basic mathematical ideas and computational methods of optimizing allocation of effort or resources, with or without constraints. Linear programming, network models, dynamic programming, and integer programming.

Fall APMA1210 S01 15347 Th 9:00-10:20(08) (X. Li)

Interested students must register for ENGN 1370 S01 (CRN 24991).

APMA 1330. Methods of Applied Mathematics III, IV.

Fall APMA1330 S01 15348 MWF 1:00-1:50(06) (C. Su)

APMA 1360. Topics in Chaotic Dynamics.
Overview and introduction to dynamical systems. Local and global theory of maps. Attractors and limit sets. Lyapunov exponents and dimensions. Fractals: definition and examples. Lorenz attractor. Hamiltonian systems, homoclinic orbits and Smale horseshoe orbits. Chaos in finite dimensions and in PDEs. Can be used to fulfill the senior seminar requirement in applied mathematics. Prerequisites: differential equations and linear algebra.

Spr APMA1360 S01 24779 MWF 1:00-1:50(06) (G. Menon)

APMA 1650. Statistical Inference I.
APMA 1650 begins an integrated first course in mathematical statistics. The first half of APMA 1650 covers probability and the last half is statistics, integrated with its probabilistic foundation. Specific topics include probability spaces, discrete and continuous random variables, methods for parameter estimation, confidence intervals, and hypothesis testing. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350.

Fall APMA1650 S01 15349 TTh 1:00-2:20(10) (C. Klivans)
Fall APMA1650 S01 15349 Th 1:00-2:20(10) (C. Klivans)
Fall APMA1650 S01 15349 T 1:00-2:20(10) (C. Klivans)

APMA 1660. Statistical Inference II.
APMA 1660 is designed as a sequel to APMA 1650 to form one of the alternative tracks for an integrated year’s course in mathematical statistics. The main topic is linear models in statistics. Specific topics include likelihood-ratio tests, nonparametric tests, introduction to statistical computing, matrix approach to simple-linear and multiple regression, analysis of variance, and design of experiments. Prerequisite: APMA 1650 or equivalent, basic linear algebra.

Spr APMA1660 S01 24780 TTh 2:30-3:50(11) (C. Lawrence)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
APMA 1690. Computational Probability and Statistics
Examination of probability theory and mathematical statistics from the perspective of computing. Topics selected from random number generation, Monte Carlo methods, limit theorems, stochastic dependence, Bayesian networks, dimensionality reduction. Suggested prerequisite: calculus-based probability
Fall APMA1690 S01 15350 MWF 9:00-9:50(02) (S. Geman)

APMA 1720. Monte Carlo Simulation with Applications to Finance.
The course will cover the basics of Monte Carlo and its applications to financial engineering: generating random variables and simulating stochastic processes; analysis of simulated data; variance reduction techniques; binomial trees and option pricing; Black-Scholes formula; portfolio optimization; interest rate models. The course will use MATLAB as the standard simulation tool. Prerequisites: APMA 1650 or MATH 1610 Spr APMA1720 S01 24781 TTh 9:00-10:20(08) (W. Wang)

Basic stability and instability analysis of differential equations will be covered. Various examples of physical and biological applications will be studied and shared with the class Fall APMA1930K S01 15856 M 3:00-5:20(13) (Y. Guo)

APMA 1940S. Topics in Applied Differential Equations.
The course will cover several topics of ordinary differential equations arising from other disciplines such as physics, chemistry, biology, and engineering, with an emphasis on the modeling of various underlying equations. The course will also be supplemented with a use of computer algebra systems like MATHEMATICA Spr APMA1940S S01 25490 MWF 2:00-2:50(07) (H. Dong)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course Fall APMA1970 S02 15351 MWF 10:00-10:50(03) (C. Dafermos)

APMA 2120. Hilbert Spaces and Their Applications.
A continuation of APMA 2110: metric spaces, Banach spaces, Hilbert spaces, the spectrum of bounded operators on Banach and Hilbert spaces, compact operators, applications to integral and differential equations Spr APMA2120 S02 24782 MWF 10:00-10:50(03) (C. Dafermos)


The theory of the classical partial differential equations, as well as the method of characteristics and general first order theory. Basic analytic tools include the Fourier transform, the theory of distributions, Sobolev spaces, and techniques of harmonic and functional analysis. More general linear and nonlinear elliptic, hyperbolic, and parabolic equations and properties of their solutions, with examples drawn from physics, differential geometry, and the applied sciences. Generally, semester II of this course concentrates in depth on several special topics chosen by the instructor.
Fall APMA2230 S02 15353 MWF 2:00-2:50(07) (M. Maxey)

APMA 2420. Fluid Dynamics I.
Formulation of the basic conservation laws for a viscous, heat conducting, compressible fluid. Molecular basis for thermodynamic and transport properties. Kinematics of vorticity and its transport and diffusion. Introduction to potential flow theory. Viscous flow theory; the application of dimensional analysis and scaling to obtain low and high Reynolds number limits. Fall 999999

APMA 2450. Exchange Scholar Program.

Finite difference methods for solving time-dependent initial value problems of partial differential equations. Fundamental concepts of consistency, accuracy, stability and convergence of finite difference methods will be covered. Associated well-posedness theory for linear time-dependent PDEs will also be covered. Some knowledge of computer programming expected Fall APMA2550 S01 15354 W 3:00-5:20(14) (G. Karniadakis)

APMA 2560. Numerical Solution of Partial Differential Equations II.
An introduction to weighted residual methods, specifically spectral, finite element and spectral element methods. Topics include homotopy and orthogonal polynomials, the Rayleigh-Ritz method, approximation properties of spectral and finite element methods, and solution techniques. Homework will include both theoretical and computational problems Spr APMA2560 S02 24785 W 3:00-5:20(14) (M. Ainsworth)

APMA 2570A. Numerical Solution of Partial Differential Equations III.
We will cover spectral methods for partial differential equations. Algorithm formulation, analysis, and efficient implementation issues will be addressed. Prerequisite: APMA 2550 or equivalent knowledge in numerical methods Fall APMA2570A S01 16176 M 3:00-5:20(13) (C. Shu)

APMA 2580A. Computational Fluid Dynamics.
An introduction to computational fluid dynamics with emphasis on compressible flows. We will cover finite difference, finite volume and finite element methods for compressible Euler and Navier-Stokes equations and for general hyperbolic conservation laws. Background material in hyperbolic partial differential equations will also be covered. Algorithm development, analysis, implementation and application issues will be addressed. Prerequisite: APMA 2550 or equivalent knowledge in numerical methods Spr APMA2580A S01 25481 M 3:00-5:20(13) (G. Karniadakis)

APMA 2610. Recent Applications of Probability and Statistics.
This is a topics course, covering a selection of modern applications of probability and statistics in the computational, cognitive, engineering, and neural sciences. The course will be rigorous, but the emphasis will be on

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
application. Topics will likely include: Markov chains and their applications to MCMC computing and hidden Markov models; Dependency graphs and Bayesian networks; parameter estimation and the EM algorithm; Nonparametric statistics ("learning theory"), including consistency, bias/ variance tradeoff, and regularization; Gibbs distributions, maximum entropy, and their connections to large deviations. Each topic will be introduced with several lectures on the mathematical underpinnings, and concluded with a computer project, carried out by each student individually, demonstrating the mathematics and the utility of the approach.

Spr APMA2610 S01 24786 MWF 11:00-11:50(04) (S. Geman)

A one-semester course that provides an introduction to probability theory based on measure theory. The course covers the following topics: probability spaces, random variables and measurable functions, independence and infinite product spaces, expectation and conditional expectation, weak convergence of measures, laws of large numbers and the Central Limit Theorem, discrete time martingale theory and applications.

Fall APMA2630 S01 15356 TTh 1:00-2:20(10) (P. Dupuis)

A one-semester course in probability that provides an introduction to stochastic processes. The course covers the following results: Markov chains, Poisson process, birth and death processes, continuous-time martingales, optional sampling theorem, martingale convergence theorem, Brownian motion, introduction to stochastic calculus and Ito’s formula, stochastic differential equations, the Feynman-Kac formula, Girsanov’s theorem, the Black-Scholes formula, basics of Gaussian and stationary processes. Prerequisite: APMA 2630 or equivalent course.

Spr APMA2640 S01 24787 TTh 1:00-2:20(10) (P. Dupuis)

APMA 2670. Mathematical Statistics I.
This course presents advanced statistical inference methods. Topics include: foundations of statistical inference and comparison of classical, Bayesian, and minimax approaches, point and set estimation, hypothesis testing, linear regression, linear classification and principal component analysis, MRF, consistency and asymptotic normality of Maximum Likelihood and estimators, statistical inference from noisy or degraded data, and computational methods (E-M Algorithm, Markov Chain Monte Carlo, Bootstrap). Prerequisite: APMA 2630 or equivalent course.

Fall APMA2670 S01 15357 Th 4:00-6:20(15) (B. Gidas)

APMA 2680. Mathematical Statistics II.
The course covers modern nonparametric statistical methods. Topics include: density estimation, multiple regression, adaptive smoothing, cross-validation, bootstrap, classification and regression trees, nonlinear discriminant analysis, projection pursuit, the ACE algorithm for time series prediction, support vector machines, and neural networks. The course will provide the mathematical underpinnings, but it will also touch upon some applications in computer vision/speech recognition, and biological, neural, and cognitive sciences. Prerequisite: APMA 2670.

Spr APMA2680 S01 24788 Th 4:00-6:20(15) (B. Gidas)

APMA 2810Q. Discontinuous Galerkin Methods.
In this seminar course we will cover the algorithm formulation, stability analysis and error estimates, and implementation and applications of discontinuous Galerkin finite element methods for solving hyperbolic conservation laws, convection diffusion equations, dispersive wave equations, and other linear and nonlinear partial differential equations. Prerequisite: APMA 2550.

Fall APMA2810Q S01 15618 W 3:00-5:20(14) (C. Shu)

APMA 2811C. Stochastic Partial Differential Equations.
SPDEs is an interdisciplinary area at the crossroads of stochastic processes and partial differential equations (PDEs). The topics of the course include: applications of SPDEs on fluid dynamics, population biology, hidden Markov models, etc. Prerequisites: familiarity with stochastic calculus and PDEs (graduate level).

Fall APMA2811C S01 15379 TTh 2:30-3:50(11) (B. Rozovsky)

APMA 2811J. Topics in Stochastic Processes.
This course provides an introduction to several topics related to stochastic processes on graphs, with a special emphasis on applications in statistical mechanics, computational biology, machine learning and combinatorics. Mathematical theory will be intertwined with algorithms and applications, and open problems will be described. Topics that will be covered include Markov random fields, graphical models, Gibbs measures, phase transitions, reconstruction and mean field models. Prerequisites: Background in real analysis and probability.

An organizational meeting will be held on Wednesday, September 5th, 11:30am-12:30pm at 182 George Street, room 110.

Fall APMA2811JS02 16524 M 2:30-4:50(11) (K. Ramanan)

APMA 2811N. Topics in Random Processes.

Fall APMA2811NS01 16215 Arranged (C. Su)

Bernstein polynomials are the foundation for many of the computer visualisation techniques and have a number of interesting properties. The same properties might be used for high order and adaptive finite element algorithms. We will pursue this idea. A basic working knowledge of the finite element method applied to simple elliptic partial differential equations such as the Poisson problem will be assumed. The course will be of interest to those working in visualisation or in high order and adaptive finite element methods.

Spr APMA2821Q S01 25344 Arranged (M. Ainsworth)

APMA 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.

APMA 2980. Research in Applied Mathematics.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

APMA 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

Archaeology and the Ancient World
ARCH 0030. Art in Antiquity: An Introduction.
What went into the creation of the Parthenon? Who lived in the Tower of Babel? Why do we still care? This course offers an introduction to the art, architecture, and material culture of the ancient world. Things of beauty and of power will be explored, from Egyptian pyramids and Near Eastern palaces, to the ‘classical’ art of Greece and Rome.

Spr ARCH0030 S01 24360 MWF 11:00-11:50(04) (O. Hamansah)

ARCH 0155. People Without History: Archaeology of Atlantic Africa and the Diaspora.
Too often ‘Western’ historical narratives consider Africans and African Diasporans as ‘People Without History’. Such a notion also refers to peoples who cultures do not, or possess few formally written histories. This class employs archaeological evidence in order to dismantle the colonial library, exploring local histories that have been erased, silenced and marginalized, investigating histories of imperialism, colonialism, genocide, slavery, resistance and black nationalism. Enrollment limited to 50.

Spr ARCH0155 S01 26043 MWF 1:00-1:50(06) (R. Engmann)

ARCH 0203. Who Owns the Past? (ANTH 0066D).
Interested students must register for ANTH 0066D S01 (CRN 14682)

ARCH 0270. Troy Rocks! Archaeology of an Epic.
What do Brad Pitt, Julian Caesar, Dante, Alexander the Great, and countless sports teams have in common? The Trojan War! This course...
will explore the Trojan War not only through the archaeology, art, and mythology of the Greeks and Romans but also through the popular imaginings of cultures ever since, to figure out what “really” happened when Helen ran off and Achilles got angry and the Greeks came bearing gifts. Enrollment limited to 20 first year students. FYS

The manufacture of artifacts distinguishes us from all other species. The course will use case-studies to examine the artifacts that archaeologists most commonly recover: lithics, pottery and metallurgy, as well as glass, wood and bone. Students will consider the importance of archaeological material culture and the technological processes that produce these artifacts in aiding us to comprehend our human past. Enrollment limited to 20

ARCH 0351. Introduction to the Ancient Near East (AWAS 0800).
Interested students must register for AWAS 0800 S01 (CRN 15126)

ARCH 0404. Cathedrals and Castles (HIAA 0420).
Interested students must register for HIAA 0420 S01 (CRN 15237)

ARCH 0405. State of Siege! Walls and Fortifications in the Greek and Roman World.
Warfare was endemic in the ancient world, and walls were therefore ubiquitous. This course will examine the most spectacular fortifications of the Graeco-Roman world, from Bronze Age citadels in Greece to the Roman frontiers. We will learn how to build walls and fortresses, how to defend them, and how to breach them by studying some of the best walls and famous sieges of Antiquity. Enrollment limited to 50

ARCH 0425. The Agora: History at the Heart of Athens.
Part city hall, part church, part mall, part parliament, part law court, part red light district, the Agora of ancient Athens has seen it all, from Neolithic to modern times. This “marketplace” is most famous for its Classical history, when figures such as Pericles, Socrates, and Demosthenes walked and talked there. This course, however, will consider the long life and impact of this civic space, including its ongoing and often problematic archaeological heritage. Enrollment limited to 50

ARCH 0520. Roman Archaeology and Art.
Anyone who has ever watched ‘Gladiator’, ‘Spartacus’, ‘Life of Brian’ or ‘Bugs Bunny: Roman Legion Hare’ has some image of Rome, the Romans and their empire. This course, while exploring and assessing these influential popular preconceptions, introduces a more balanced view of Roman archaeology and art, examining not only the ‘eternal city’ of Rome, but its vast and diverse imperial domain.

ARCH 0530. Hannibal ad Portas! Fact and Fiction on Carthage and the Punic World.
Hannibal stands at the gates”: Roman parents would terrify their children with these words. And many others have been haunted by Hannibal Barca: the Carthaginian general still fascinates the European imagination, not least his epic trek over the Alps with three dozen elephants. This course explores fact and fiction about Hannibal and his world, holding up historical and mythical records against hard archaeological evidence. Enrollment limited to 50

ARCH 0677. Pirates! Archaeologies of Piracy in the Atlantic World (ANTH 0515).
Interested students must register for ANTH 0515 S01 (CRN 16218)

ARCH 0711. Foragers, Farmers, Feasts, and Famines: An Anthropology of Food (ANTH 0680).
Interested students must register for ANTH 0680 S01 (CRN 14685)

ARCH 1010. Archaeology’s Dirty Little Secrets.
Admit it — you wanted to be an archaeologist when you grew up… This course builds on that enthusiasm, while radically expanding your notions about just what archaeology is and just what archaeologists do. This class is a hands-on introduction to the often-fruity processes of doing archaeology, and a hands-on collaborative workshop to develop one of Brown’s three pilot on-line classes for Coursera, to be offered free to the world in summer 2013. Enrollment limited to 12

ARCH 1052. Global Historical Archaeology (ANTH 1620).
Interested students must register for ANTH 1620 S01 (CRN 24050)

ARCH 1128. The Long Fall of the Roman Empire (HIST 1030).
Interested students must register for HIST 1030 S01 (CRN 15822)

ARCH 1155. Cities, Colonies and Global Networks in the Western Mediterranean.
Urban life as we know it in the Mediterranean began in the Iron Age, a period that witnessed the rise of long-distance networks and the foundation of colonies by several Mediterranean powers. What happened when new settlers, visiting traders, and local inhabitants came into direct and unprecedented contact? This course will explore this and other transformations in the West Mediterranean during the first half of the first millennium BC. Enrollment limited to 20

ARCH 1162. Anthropology in/of the Museum (ANTH 1901).
Interested students must register for ANTH 1901 S01 (CRN 25034)

Interested students must register for HIST 1976Z S01 (CRN 15429)

The world of Byzantium is often considered as a dark age separating the glories of Rome and the Renaissance. Yet Byzantium was among the longest living empires in world history, with an artistic and cultural impact felt far beyond its borders. The course will introduce students to a series of art works, architectural masterpieces, and archaeological discoveries that illuminate our understanding of the much underestimated, and much misunderstood, Byzantine Empire. Enrollment limited to 50. WRIT

ARCH 1233. Ancient Maya Writing (ANTH 1650).
Interested students must register for ANTH 1650 S01 (CRN 14687)

ARCH 1411. Ancient Synagogues, Churches, and Mosques in Palestine (JUDS 1440).
Interested students must register for JUDS 1440 S01 (CRN 23672)

ARCH 1450. Qumran and the Dead Sea Scrolls.
Examines the scholarly interpretations of the site and the scrolls. Attempts to determine the relationship between the archaeological and textual evidence.

Please note, for fall 2012, interested students must register for JUDS 1450 S01 (CRN 14228).

ARCH 1500. Classical Art in the RISD Museum.
The RISD Museum’s collection of Greek, Etruscan and Roman art will be studied firsthand and in light of recent scholarship in art history, archaeology and museum studies. The course will explore original contexts for museum objects; issues of cultural property and museum ethics; conservation and restoration; design and education components of exhibitions; and notions of historical interpretation in museum display. Enrollment limited to 15

ARCH 1551. Who Owns the Classical Past? (CLAS 11200).
Interested students must register for CLAS 11200 S01 (CRN 16018)

The course introduces students to the central ideas and controversies in African art and material culture (pre-colonial, colonial and post-colonial). We will explore visual and spatial representations of Africa, such as personal adornment, utilitarian objects, sculpture, textiles, painting, masquerade, rock art, and architecture. Paying attention to issues such as identity, religion, politics, collecting practices, and activist art, students will examine African material culture through the multiple lenses of cultural biography, primitive art, tourist art, heritage ethics, and repatriation. Students will have the opportunity to study, handle, and curate African objects from the Haffenreffer Museum’s collections. Enrollment limited to 20. First year students require instructor permission to enroll

ARCH 1772. The Human Skeleton (ANTH 1720). Interested students must register for ANTH 1720 S01 (CRN 24048)

ARCH 1775. Animals in Archaeology

ARCH 1835. Inventing the Past: Amulets, Heirlooms, Monuments, Landscapes. Long before archaeology and art-history were academic disciplines, individuals and communities manipulated the physical traces of the past in order to imagine and explain their own antiquity. Who cared about these objects and why? What did pre-modern excavations, catalogues, and collections look like and what do they tell us about our own engagements with antiquities? This course delves into the origins of antiquarianism and archaeology, from pre-history to the Renaissance. Enrollment limited to 20. Not open to first year students

ARCH 1852. Material Culture Practicum (ANTH 1621). Interested students must register for ANTH 1621 S01 (CRN 25151)

ARCH 1860. Engineering Material Culture: An Introduction to Archaeological Science. Unlike bedfellows? No way! This course demonstrates how well archaeology (the humanities) and engineering (the hard sciences) can do business together. An introduction to the world of archaeological science, presented from the dual perspectives of material culture studies and materials science. Students will be introduced to a range of methodologies, instrumenta tion, and interpretive approaches through a combination of hands-on laboratory work, guest lectures, and interdisciplinary group research. Student must have already completed at least two university courses in archaeology, engineering, or any related discipline. Enrollment is limited to 20. Priority will be given to admitting a proportional number of students from archaeology, engineering and related fields

ARCH 1900. The Archaeology of College Hill. A training class in field and laboratory techniques. Topics include the nature of field archaeology, excavation and survey methodologies, archaeological ethics, computer technologies (such as GIS), and site and artifact analysis and conservation. Students will act as practicing archaeologists through the investigation of local historical and archaeological sites in the College Hill area (e.g. the First Baptist Church of America and the John Brown House). Prerequisite: A previous course in Archaeology and the Ancient World or Anthropology is required. Restricted to sophomores, juniors, and seniors, except by permission of the instructor. Enrollment limited to 15

ARCH 1984. Practicum in the Profession

ARCH 1985. Individual Study Project in Old World Archaeology and Art


ARCH 2006. Principles of Archaeology (ANTH 2501). Interested students must register for ANTH 2501 S01 (CRN 14694)

ARCH 2041. Mesoamerican Archaeology and Ethnohistory (ANTH 2520). Interested students must register for ANTH 2520 S01 (CRN 24060)

ARCH 2105. Ceramic Analysis for Archaeology. 

ARCH 2202. Key Issues in Mediterranean Prehistory

ARCH 2245. Rural Landscapes and Peasant Communities in the Mediterranean. The broad aim of this course is to explore rural settlement and agrarian production in the Mediterranean, both in the ancient and the recent past. The archaeological starting-point is provided by the numerous scatters of surface remains that archaeological surveys across the Mediterranean have collected and that are usually interpreted as 'farmsteads' broadly datable to Classical Antiquity. We will look well beyond these scatters to examine the social and economic significance of rural settlement through comparison with ethnographic and historical rural studies from across the Mediterranean and to explore household and community organisation as well as agrarian production in Classical Antiquity. Enrollment limited to 15 juniors, seniors, and graduate students

ARCH 2335. In the Wake of Empire: Anatolia after the Hittites, before Alexander.

ARCH 2391. Thesis Research.

ARCH 2982. Individual Reading for Dissertation. Reading leading to selection of the dissertation subject. Single credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

ARCH 2983. Dissertation Research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
Biology and Medicine

**Biology**

**BIOL 0030. Principles of Nutrition.**
Introduces the basic principles of human nutrition, and the application of these principles to the specific needs of humans, and the role of nutrition in chronic diseases. Provides an overview of the nutrients and their use by the human body. Also examines the role of nutrients in specific functions and disease states of the body. Not for biology concentration credit. Enrollment limited to 100. LILE

Fall BIOL0030 S01 14640 MW 8:30-9:50(02) (M. Flynn)

**BIOL 0080. Biotechnology Management.**
An examination of the pharmaceutical, biotechnological, and medical product industries: what they are, how they function, whence they originate, and various perspectives on why some succeed and others fail. Pathways from lab-bench to marketplace are described as are the pervasive influences of the FDA, patent office, and courts. Extensive reading; emphasis on oral presentation. Primarily intended for students planning a career in biomedical industry. Not for biology concentration credit. Students MUST register for the lecture section and the conference. Enrollment limited to 20

Spr BIOL0080 S01 24070 Th 4:00-6:20(15) (B. Ready)

**BIOL 0150A. Techniques and Analyses using DNA-Based Biotechnology.**
The development of powerful tools in molecular biology has led to an explosion in our understanding of genes and the factors controlling expression. Illuminating research, including recent Nobel Prize winning work, is beginning to reveal the significant role of RNA, a molecule long thought to be merely a “messenger.” Through extensive laboratory work, students will acquire skills used in current research in molecular biology while examining the ways in which tools are being used in research and in development of medical treatments. Expected background: high school Biology course. Enrollment limited to 10 first year students. Instructor permission required. Half-credit course. S/NC. FYS

Spr BIOL0150A S01 24016 Arranged (J. Hall)

**BIOL 0150B. Statistical Computing for Biology.**
Modern biological research is a data rich endeavor, necessitating strong quantitative and computational skills to interpret the results of experimental and observational studies. In this course we will explore the application of statistics and modeling in biological research and environmental science. Topics covered will include basic probability, experimental design, sampling, hypothesis testing and mathematical models for prediction. No prior statistics knowledge is assumed. Enrollment limited to 10 first year students and sophomores. Instructor permission required. This is a half-credit course. S/NC

Fall BIOL0150B S01 15028 F 2:00-4:00(07) (E. Sudderth)

**BIOL 0150C. Methods for Extraction and Analyzing Secondary Metabolites of Medicinal Plants.**
Plant secondary metabolites are currently the subject of much research interest when investigating new target compounds for potential medicine from natural products. New leads for drugs and phytomedicines from plants and plant parts have been increasing at a rapid rate especially by the pharmaceutical industry. Many plants have been selected and collected for their specific secondary compounds and healing powers by ethnobotanists in the field. The final step is the extraction, analyzing and identification of these plant specimens. Enrollment limited to 10 first year students. Instructor permission required. Half-credit course. S/NC. FYS

Spr BIOL0150C S01 24002 Arranged (F. Jackson)

**BIOL 0150D. Techniques in Regenerative Medicine: Cells, Scaffolds and Staining.**
Regenerative Medicine, also known as Tissue Engineering, is the process of creating living, functional tissues to repair or replace native tissue or organ functions that have been lost due to disease or congenital defects. As such, it is a prominent scientific discipline that can either “stand alone” or complement material-based research efforts in the areas of device design, drug delivery, diagnostics and pharmaceuticals. Students will develop proficiencies in basic cell culture techniques, early stage tissue regeneration strategies and histochemical characterization of mammalian cell constructs. Enrollment limited to 10 first year students. Instructor permission required. Half-credit course. S/NC. FYS

Spr BIOL0150D S01 24071 Arranged (B. Zielinski-Habershaw)

**BIOL 0170. Biotechnology in Medicine.**
Introduces undergraduates to the main technological advances currently dominating the practice of medicine. Provides an overview of the objectives, techniques, and problems related to the application of biomedical technology to the diagnosis and treatment of disease and the contemporary health care industry. Topics include: pharmaceutical development and formulation; organ replacement by prosthesis and transplantation; medical imaging; tissue engineering, therapeutic cloning, regenerative medicine; stem cells; societal, economic, and ethical issues. This course does carry Biology concentration credit

Fall BIOL0170 S01 14719 MWF 12:00-12:50(12) (B. Zielinski-Habershaw)

Fall BIOL0170 S01 14719 F 12:00-12:50(12) (B. Zielinski-Habershaw)

Fall BIOL0170 S01 14719 M 12:00-12:50(12) (B. Zielinski-Habershaw)

**BIOL 0180. The Biology of AIDS.**
AIDS represents an example of the vulnerability of humans to new infectious agents. We will review some human infectious diseases including small pox yellow fever and influenza, and then explore AIDS/HIV. First characterized in 1981, AIDS became the leading cause of death in U.S. males aged 25-44 within a decade. We will examine what factors make HIV such a potent pathogen. The course is intended for students beginning in biology. Expected: BIOL 0200, or equivalent placement. This course does carry Biology concentration credit

Fall BIOL0180 S01 14644 MWF 11:00-11:50(04) (P. Shank)

**BIOL 0190E. Botanical Roots of Modern Medicine.**
This course will explore a variety of medicinal plants found throughout the world, the diverse cultures that use them in their daily lives and the scientific underpinnings of their medicinal uses. In conjunction with readings, students will gain a hands-on approach in lab, observing, identifying and growing these plants. Enrollment limited to: 20. Students MUST register for the lecture section and the lab

Fall BIOL0190E S01 14622 MW 3:00-4:20(13) (F. Jackson)

**BIOL 0190F. Darwinian Medicine.**
Explores evolutionary explanations of why we get sick, and how this can shape, or misshape, our interpretations of medicine. Draws on evolutionary genetics, population biology, molecular biology and physiology. This course will build on evolutionary biology and then focus on disease processes such as infection, aging, cancer, allergy, diabetes, and obesity. Enrollment limited to 20 first year students. FYS

Fall BIOL0190F S01 14588 TTh 1:00-2:20(10) (M. Tatar)

**BIOL 0190H. Plants, Food, and People.**
Examines the selection, breeding, cultivation and uses of food plants. Discusses the effects on agriculture of pathogens, climate change, and loss of biodiversity. Considers whether enough food can be produced for a world population of potentially 10 billion, while sustaining biodiversity and environmental quality. Course will include two papers and assistance from Writing Fellows: feedback from first paper will be available when writing second paper. Enrollment limited to 40. LILE

Spr BIOL0190H S01 24017 MW 3:00-4:20(13) (P. Heywood)

**BIOL 0190P. Development of Scientific Theories: Context and the Individual.**
We will examine how the pace and shape of scientific progress is affected by the social/cultural context and the "personality" of the individual. We will look into how the interplay between society and the individual affects how scientific theories arise, are presented, are debated and are accepted. The course will initially focus on Charles Darwin and his theory of Natural Selection using the biography of Adrian Desmond and James Moore, "Darwin: The Life of a Tormented Evolutionist." Enrollment limited to 20 first year students. FYS

Fall BIOL0190P S01 14628 TTh 2:30-3:50(11) (S. Helfand)
BIOL 0190R. Phage Hunters, Part I.  A research-based lab class for freshmen; both semesters are required in the sequence. Students will isolate and characterize a bacteriophage viruses found in the soil. Work lab includes isolation and purification of your own phage, DNA isolation and restriction mapping, and EM characterization of your phage. Several phages will be selected for genome sequencing over winter break, and are annotated in the spring. One hour lecture, discussion, and 3 hours lab per week. Expected: AP Biology or equivalent, HS chemistry. Instructor permission required. Admittance based on review of applications in the first class. Limited to 20 freshmen. S/NC only. FYS
Fall BIOL0190R S01 14645 M 3:00-5:20(13)  (P. Shank)

BIOL 0190S. Phage Hunters, Part II.  A research-based laboratory class for freshmen; both semesters are required. Students will isolate and characterize a bacteriophage viruses found in the soil. Lab work includes isolation and purification of your own phage, DNA isolation and restriction mapping, and EM characterization of your phage. Several phages will be selected for genome sequencing over winter break, and is annotated in the spring. One hour lecture, discussion, and 3 hours lab per week. Expected: AP Biology or equivalent, HS chemistry, and permission of the instructor. Students are expected to take both fall and spring courses in the sequence. Enrollment limited to 20 first year students. Instructor permission required. FYS
Spr BIOL0190S S01 24037 Arranged  (P. Shank)

BIOL 0200. The Foundation of Living Systems.  A broad overview of biological systems, emphasizing patterns and processes that form the basis of life. Explores essentials of biochemistry, molecular, and cellular biology and their relationship to the larger issues of ecology, evolution, and development. Examines current research trends in biology and their influence on culture. Appropriate for all students interested in biology. Serves as a gateway course to much of the intermediate and advanced curriculum. Placement tests are offered (contact Jody_Hall@brown.edu); AP scores of 4 or 5 are equivalent to BIOL 0200, and place a student out of this course. Students will be assigned to a lab section during the second week of class
Spr BIOL0200 S01 24018 MWF 11:00-11:50(04)  (K. Miller)

BIOL 0280. Introductory Biochemistry.  Lectures and recitation sections explore the mechanisms involved in the principles of macromolecular structure and function, the organization and regulation of pathways for intermediary metabolism, and the transfer of information from genes to proteins. It is expected that students have taken CHEM 0350 or are taking it concurrently
Spr BIOL0280 S01 24019 TTh 1:00-2:20(10)  (G. Jogli)

BIOL 0310. Introduction to Developmental Biology.  An introductory level course focusing on the scientific principles and concepts governing development of animals and plants, evolutionary comparisons of these processes, and the ethical and social implications of these events. Expected: BIOL 0200, or equivalent
Fall BIOL0310 S01 14629 MWF 1:00-1:50(06)  (K. Wharton)

BIOL 0320. Vertebrate Embryology.  Introduction to the developmental anatomy of vertebrate embryos, including amphibians, fishes, and some avian species; includes evolutionary context, through lecture, discussion and microscopic slide study. Gametogenesis through germ layers and their organ system derivatives. Expected: BIOL 0200, or equivalent placement; AP Biology score of 4 or 5. Limited to 18 freshmen and 18 sophomores. Students MUST register for the lecture section and the lab
Spr BIOL0320 S01 24020 TTh 9:00-10:20(08)  (M. Thompson)

BIOL 0380. The Ecology and Evolution of Infectious Disease.  We will survey the diverse biology of microbes responsible for human infectious diseases, and apply ecological and evolutionary theory to infectious microbes, and provide practical experience interpreting and synthesizing the peer-reviewed scientific literature. The discovery of infectious microbes, the role of genetic novelty, population structure and transmission mode, and the influence of clinical therapies and host immune response will be considered. Evaluation will be based on preparation, participation, weekly student presentations, brief weekly written assignments, a midterm and a final. Expected: BIOL 0200 or equivalent. Enrollment limited to 45 freshmen and sophomores. Instructor permission required. LILE
Fall BIOL0380 S01 14589 MWF 10:00-10:50(03)  (D. Weneich)

BIOL 0390. Vertebrate Evolution and Diversity.  An overview of vertebrate evolution that not only covers historical events, but also introduces various scientific concepts and modes of thought. Topics include past and present diversity, convergent evolution, biogeography, competition, continental drift, climatic change over time, the notion of evolution as progress, and a whole-animal approach to understanding evolutionary events. Enrollment limited to 50. WRIT
Fall BIOL0390 S01 14592 TTh 1:00-2:20(10)  (C. Janis)

BIOL 0400. Biological Design: Structural Architecture of Organisms.  Many questions about the workings of living creatures can be answered by joining math, physics, and biology. We will identify basic physical science concepts that help biologists understand the structure and function of animals, plants, and microorganisms, and use these to study how the physical world constrains and facilitates the evolution of the extraordinary design and diversity of organisms. For first and second year students; others by permission. Recommended background: BIOL 0200, or equivalent. Enrollment limited to 40. Instructor permission required
Fall BIOL0400 S01 14595 MWF 2:00-2:50(07)  (S. Swartz)

BIOL 0410. Invertebrate Zoology.  A survey of invertebrate animals emphasizing evolutionary patterns and ecological relationships. Functional morphology, physiology, reproduction, development, and behavior of invertebrates will be examined. Laboratory exercises and two separate day-long field trips provide firsthand experience with the animals. Expected: BIOL 0200 or equivalent. Enrollment limited to 44. Students MUST register for the lecture section and a lab
Fall BIOL0410 S01 14597 MWF 11:00-11:50(04)  (C. Dunn)

BIOL 0415. Microbes in the Environment.  A research-based laboratory class for freshmen; both semesters are required. BIOL 0190R. Phage Hunters, Part I
Fall BIOL0190R S01 14659 MWF 10:00-10:50(03)  (D. Weneich)

BIOL 0430. The Evolution of Plant Diversity.  A research-based laboratory class for freshmen; both semesters are required. BIOL 0190R. Phage Hunters, Part I
Fall BIOL0190R S01 14659 MWF 10:00-10:50(03)  (D. Weneich)
BIOL 0470. Genetics.
Genetic phenomena at the molecular, cellular, organismal, and population levels. Topics include transmission of genes and chromosomes, mutation, structure and regulation of the expression of the genetic material, elements of genetic engineering, and evolutionary genetics. One laboratory session and one discussion session per week. (Students should not plan to take BIOL 0470 after 1540.) Expected: BIOL 0200 (or equivalent placement). Students will be assigned to Lab sections the first week of class.

Fall BIOL0470 S02 14633 TTh 10:30-11:50(09) (R. Reenan)

How have fruit bats contributed to the emergence of Nipah virus in Malaysia? Is an infectious cancer going to drive the Tasmanian Devil to extinction? Will a warmer world be a sicker world? We will consider these and additional topics at the intersection of global change biology and infectious disease emergence in this course. The course should be of interest to pre-med, general biology and environmental studies concentrators looking for an interdisciplinary learning classroom experience. Conservation Medicine will satisfy the "Area 3" organismal biology concentration requirement for Biology and Human Biology. Expected background: BIOL 0200 or equivalent placement. Enrollment limited to 25 sophomores and juniors. Instructor permission required.

Fall BIOL0475 S01 24004 TTh 2:30-3:50(11) (K. Smith)

BIOL 0480. Evolutionary Biology.
A broad introduction to the patterns and processes of evolution at diverse levels of biological organization. Topics covered include natural selection, adaptation, speciation, systematics, macroevolution, mass extinction events, and human evolution. Weekly discussion sections involve debates on original research papers. Occasional problem sets involve computer exercises with population genetics and phylogeny reconstruction. Expected: BIOL 0200 or equivalent placement.

Fall BIOL0480 S01 14617 MWF 9:00-9:50(02) (D. Rand)

BIOL 0500. Cell and Molecular Biology.
This course examines the structure and function of the basic unit of an organism, the cell. An experimental approach is used to examine cellular functions, ranging from gene transcription, cell division and protein secretion, to cell motility, and signal transduction. Relevance to health and disease will be considered. Expected: BIOL 0200 (or equivalent placement).

Spr BIOL0500 S01 24021 MW 8:30-9:50(02) (P. Heywood)

BIOL 0510. Introductory Microbiology.
Introduces role of microbes in our understanding of biology at the cellular and molecular level. Focuses on microbial significance for infectious disease, public health, genetics, biotechnology, and biogeochemical cycles. Laboratory involves basic microbial techniques and selection and manipulation of microbes and their genes. Expected: BIOL 0200 (or equivalent placement); CHEM 0330. Students MUST register for the lecture section and the lab. Enrollment limited to 72. Students should email Samantha.Plouffe@brown.edu to get on the waitlist.

Spr BIOL0510 S01 24035 MW 1:00-2:20(06) (R. Bungiro)

BIOL 0530. Principles of Immunology.
Introduction to experimental and theoretical foundations of immunology. Focuses on concepts, landmark experiments and recent advances. Topics include innate and adaptive immunity; structure/function of antibody molecules and T cell receptors; regulation of immune responses through cellular interactions. Applications of concepts to medically significant issues (vaccines, transplantation, inflammation, autoimmunity, cancer, HIV/AIDS) are discussed. Interpretative analysis of experimental data is emphasized. Expected: BIOL 0200 (or equivalent placement).

Fall BIOL0530 S01 14656 TTh 2:30-3:50(11) (R. Bungiro)

BIOL 0800. Principles of Physiology.
Introduction to the function and integration of animal systems with an emphasis on mammals. Includes basic concepts in cell and organ system physiology as well as fundamentals of modern trends in physiological science. Emphasizes the application of physical and chemical principles to animal function at both the cellular and systemic levels. Sophomore and junior status seeking enrollment in the fall offering must sign-up on the waitlist as of Tuesday, April 23rd, from 2-5pm in Biomed 119. Expected: BIOL 0200 or equivalent.

Fall BIOL0800 S01 14720 TTh 10:30-11:50(09) (J. Stein)
Spr BIOL0800 S01 24072 MWF 10:00-10:50(03) (C. Hai)

BIOL 0860. Diet and Chronic Disease.
This course addresses the relationship of food to the development and treatment of chronic diseases. Chronic diseases discussed are obesity, dyslipidemia/heart disease, diabetes mellitus, cancers and osteoporosis. Dietary recommendations for these diseases are critically assessed. Geared toward students interested in nutrition, medicine, and public health. Prerequisites: BIOL 0030 and 0800, plus permission of the instructor. Enrollment limited to 20.

Spr BIOL0860 S01 24028 T 4:00-6:20(15) (M. Flynn)

BIOL 0950B. Topics in Science Communications: Science Journalism Practicum.
Participants will understand how to read scientific research papers to interpret their findings and communicate these to a broader lay audience; analyze and understand best practices in science writing and the challenges of covering science for mass media; interviewing; fair and balanced coverage in reporting; give and receive peer feedback. Enrollment limited to 20. Instructor permission required. S/NC

BIOL 0960. Independent Study in Science Writing.
Incorporates a nontechnical science journalism component into the BioMed curriculum. A series of four to six specific assignments are recommended, based on topics derived from another biology course taken previously by the student, whose instructor has agreed to serve as a BIOL 0960 sponsor. Assignments may include, for example, investigative or analytical reviews, or feature articles on ethical or social impacts of new discoveries. The student and instructor schedule meetings to discuss topics and due dates, review rough drafts, and evaluate completed work. Not for concentration credit in the biological sciences programs. Written permission must be obtained from Dean M. Thompson prior to registering. Section numbers vary by instructor. Half credit.

BIOL 1050. Biology of the Eukaryotic Cell.
Examines organelles and macromolecular complexes of eukaryotic cells with respect to structural and functional roles in major cellular activities. Emphasizes experimental basis for knowledge in modern cell biology using original literature, and discusses validity of current concepts. For advanced undergraduates and beginning graduate students. Complementary to BIOL 1270 and 1540. Prerequisites: BIOL 0280, 0470, 0500, or instructor permission. Graduate students register for BIOL 2050.

Fall BIOL1050 S01 14634 TTh 1:00-2:20(10) (K. Miller)

BIOL 1090. Polymer Science for Biomaterials.
Basic principles of polymer science and its application in medicine. Topics include basic polymerization chemistry, kinetics of polymerization and depolymerization with emphasis on bioerodible polymers, characterization of polymers, by physical methods, bulk and surface properties, behavior of polymers in solutions, crystallization, gelation, and liquid crystals. Hands-on experience with polymer characterization. Expected: CHEM 0350. Enrollment limited to 40.

Fall BIOL1090 S01 14722 T 1:00-3:50(10) (E. Mathiowitz)

BIOL 1100. Cell Physiology and Biophysics.
Current topics in cell physiology, with an emphasis on membrane-mediated interactions between cells and their environment. Topics may include: ion channel structure, function and regulation; intracellular regulatory molecules; mechanisms of sensory transduction; membrane receptors and second messenger systems; vesicle secretion; and cytoskeletal regulation of cell function. Lectures, discussion, and student presentations of the current literature. Expected: BIOL 0800 or NEUR 0010. Instructor permission required. Registration overrides will not be given out until after the first one or two classes. Enrollment limited to 30, and admission is based on seniority -- graduate students, seniors, then juniors (realistically, first and second-year undergrads have almost no chance of admission). A signup sheet will be passed around on the first day of class.

Spr BIOL1100 S01 24073 W 3:00-5:20(14) (J. Kauer)

BIOL 1120. Biomaterials.
A biomaterial is defined as a material suitable for use in medical implants that come in direct contact with patients' tissues. These include polymers, metals, and ceramics, and materials obtained from biological sources or through recombinant biotechnology. Goal: to For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
provide comprehensive coverage of biomaterial science and technology. Emphasizes the transition from replacement to repair strategies. For advanced undergraduates and graduate students. Prerequisite: BIOL 0800 or instructor permission

**BIOL 1140. Tissue Engineering.**
Tissue engineering is an interdisciplinary field that incorporates progress in cellular and molecular biology, materials science, and engineering, to advance the goal of replacing or regenerating compromised tissue function. Using an integrative approach, we will examine tissue design and development, manipulation of the tissue microenvironment, and current strategies for functional reconstruction of injured tissues. Expected: CHEM 0330, plus BIOL 0500 or 0800. Enrollment limited to 20. Instructor permission required

Fall BIOL1140 S01 14732 Th 3:00-5:20(15) (D. Hoffman-Kim)

**BIOL 1150. Stem Cell Engineering.**
Stem cell engineering focuses on using adult, embryonic, and induced stem cells to repair damaged or diseased tissues. This course will examine the role of stem cells in development, tissue homeostasis, and wound healing, as well as how they are being applied in regenerative medicine. The course will use a lecture and discussion format for major topic areas. Additionally, students will receive hands-on training in how to isolate, culture, and differentiate adult stem cells in a laboratory setting. Expected: CHEM 0330 and BIOL 0500 or an equivalent course in cell biology or physiology. Enrollment limited to 20. Instructor permission required

Fall BIOL1150 S01 24069 Th 3:00-5:20(15) (E. Darling)

**BIOL 1160. Principles of Exercise Physiology.**
Application of the basic principles of physiology to the study of the response mechanisms of the human body during exercise. Topics include muscle and neural control, metabolism, energy sources, cardiovascular and respiratory effects, thermoregulation, and special topics (e.g., exercising at high altitude). Student presentations based on scientific articles are included. Expected: BIOL 0800 or written permission of the instructor

Fall BIOL1160 S01 14724 MWF 1:00-1:50(06) (C. Hai)

**BIOL 1180. Comparative Animal Physiology.**
Comparative approach to the function and regulation of animal systems with an emphasis on vertebrates. Topics include circulation, gas exchange, neuromuscular function, excretion, acid-base and ion regulation, and temperature regulation. Considers the unity and diversity of physiological processes in animals differing both in phylogeny and environmental adaptation. Original papers are discussed. Expected: BIOL 0800 or equivalent

Spr BIOL1180 S01 24073 TTh 2:30-3:50(09) (D. Jackson)

**BIOL 1190. Synaptic Transmission and Plasticity.**
Synapses are the means by which the nervous system communicates. In this seminar-style course, we will explore the molecular and physiological underpinnings of synaptic transmission. We will then examine ways in which synapses can modulate their strength during development, learning, and other adaptive processes. Expected: BIOL 0800 or NEUR 1020. Enrollment limited to 20. Instructor’s permission required

Fall BIOL1190 S01 14726 TTh 1:00-2:20(10) (J. Kauer)

**BIOL 1210. Synthetic Biological Systems.**
A multidisciplinary course that combines science and engineering providing a solid foundation in a cutting edge field of biological engineering. Synthetic biology is a mixture of biology, chemistry, engineering, genetic engineering and biophysics. It builds on recent work in systems biology which involves the modeling of biological systems, but goes further in that it involves the construction and standardization of biological parts, that fit together to form more complex systems. Expected: at least two courses in any of the key disciplines (biology, chemistry, physics, math, engineering, computer science) beyond the introductory level

Fall BIOL1210 S01 15191 MW 3:00-4:20(13) (G. Wessel)

**BIOL 1260. Physiological Pharmacology.**
Covers the physiology of human disease (e.g., Heart failure and arrhythmia; cancer signaling pathways with a focus on breast cancer; neurological disorders such as schizophrenia and Parkinson’s disease) and discusses the pharmacology of the drugs used to treat disease. A group of the most commonly prescribed drugs is discussed in terms of their fundamental modes of action and clinical importance. Expected: BIOL 0800

Fall BIOL1260 S01 15249 TTh 10:30-11:50(09) (J. Marshall)

**BIOL 1270. Advanced Biochemistry.**
An advanced course in biochemistry, biochemical methods, and reading of the primary literature, featuring systematic coverage of the biochemistry of the central dogma, including DNA (replication, repair, recombination), RNA (regulation and mechanism of transcription, processing, turnover), and proteins (structure, synthesis, modification, degradation, mechanisms of action, function). Expected: BIOL 0280, CHEM 0350, 0360. Graduate students register for BIOL 2270

Fall BIOL1270 S01 14635 TTh 2:30-3:50(11) (A. Brodsky)
Fall BIOL1270 S02 16508 Th 4:00-6:20(15) (G. Jog)

**BIOL 1290. Cancer Biology.**
Provides a conceptual understanding of molecular events underlying development of human cancer. Focused on genetic changes leading to malignant transformation of cells. Covers cell cycle control, DNA damage, mutagenesis, cancer predisposition syndromes, oncogenic viruses, tumor immunology, metastasis, cancer chemotherapy and drug resistance. Lecture plus discussion of primary literature. Expected: BIOL 0280, 0470 or 0500

Fall BIOL1290 S01 14735 MW 3:00-4:20(13) (A. Zhitkovich)

**BIOL 1310. Analysis of Development.**
Explores molecular mechanisms underpinning development. We will focus on cellular programming during embryogenesis and the assembly of complex tissues and organisms. Specifically, we will discuss state-of-the-art experimental approaches used to investigate how cell signaling and the regulation of gene expression converge to control tissue specification and diversification. Finally, this course will emphasize developmental processes as a driving force in evolutionary biology and in the context of cellular reprogramming for use in cell-based therapies and disease. Expected: BIOL 0200 (or equivalent), and one course in genetics, embryology, cell biology or molecular biology

Spr BIOL1310 S01 24022 TTh 9:00-10:20(08) (M. Zervas)

**BIOL 1410. Evolutionary Genomics.**
This course will focus on selected topics in molecular population genetics, molecular evolution, and comparative genomics. Classic and current primary literature at the interface of evolution and genetics will be discussed in a seminar format. The laboratory involves wet-lab exercises (allozymes, PCR-RFLP, sequencing), plus computer labs using DNA analysis packages. Students will prepare a final grant proposal on specific research interests. Expected: BIOL 0470 or 0480. Students MUST register for the lecture section and the lab. Enrollment limited to 20

Spr BIOL1410 S01 24067 Arranged (D. Rand)

**BIOL 1425. Phylogenetic Biology.**
This course is the study of the evolutionary relationships between organisms, and the use of evolutionary relationships to understand other aspects of organism biology. This course will provide a detailed picture of the statistical, mathematical, and computational tools for building phylogenies and using them to study evolution. Enrollment is by instructor permission. Students will present scientific papers in class and complete a final project consisting of their own phylogenetic analysis. Expected Background: Evolutionary Biology and quantitative methods (such as statistics, computation, or math). Open to juniors, seniors, and graduate students. Enrollment limited to 16

Spr BIOL1425 S01 25716 M 3:00-3:50(13) (C. Dunn)
Spr BIOL1425 S01 25718 W 2:30-4:50(13) (C. Dunn)

**BIOL 1465. Human Population Genomics.**
An introduction to human genomics and the evolutionary forces that shape observed genetic variation across humans today. Topics will include the relationship among humans and other primates, human population genetics and genomics, and examples of the concomitant evolution of both cultural traits and domesticated organisms. Assignments include a class presentation and reviewing papers on a selected topic. Expected background: BIOL 0470 or 0480, and BIOL 0485, PHP 2500, or equivalent. Enrollment limited to 25. Instructor permission required
BIOL 1465. Conservation Biology.
Conservation Biology is the scientific study of the phenomena that affect the maintenance, loss, and restoration of biological diversity. Topics covered include: 1) the impacts of global warming, species invasions, and habitat destruction on biodiversity, 2) strategies developed to combat these threats, and 3) a consideration of key economic and ethical tradeoffs. Special attention will be paid to current debate and controversy within this rapidly emerging field of study. Readings will include the primary literature. A term-paper will be required. Prerequisite: BIOL 0420 or instructor permission. Enrollment limited to 30.
Fall BIOL1465 S01 16110 TTh 1:00-2:20(10) (S. Ramachandran)

BIOL 1470. Terrestrial Biogeochemistry and the Functioning of Ecosystems.
Three fundamental multidisciplinary questions will be addressed: How do ecosystems work? What limits the growth of life on Earth? How are humans altering the framework in which all life exists? Earth is basically a closed chemical system, and the reactions that support life are fueled by sunlight. But added to this chemistry and physics is the tremendous influence of life. Life created an oxygen atmosphere; the evolution of biological nitrogen fixation exponentially increased how many organisms could exist, and the soils that support human food production developed only by biologically-mediated processes. Throughout Earth’s 4.5 billion-year history changes in Earth’s basic biogeochemical processes have been fairly slow. Under our inattentive stewardship, we have almost instantaneously altered all of the major element cycles. We will focus heavily on what these changes mean for life on Earth. Instructor permission required.
Fall BIOL1480 S01 14621 MW 10:00-10:50(03) (S. Porder)

BIOL 1485. Climate Change and Health.
In this course, students will explore the linkages between climate change and health. They will come to appreciate the topic through the foundations of the primary disciplines relevant to the field including global health, environmental change, disease ecology, and others. Climate-health linkages will be learned through weekly case studies addressed collectively through student-centered lectures, discussion of the primary literature, groups activities and guest lectures from campus faculty on topics ranging from climate migration to infectious disease range shifts. Expected background: BIOL 0475, or BIOL 1470, or PHP 1070, or PHP 1920, or equivalent experience with instructor’s permission. Enrollment limited to 15 juniors and seniors.
Fall BIOL1485 S01 16222 M 1:00-4:00(06) (K. Smith)

BIOL 1500. Plant Physiological Ecology.
An in-depth look at plant ecological strategy, focusing on the anatomical and physiological adaptations of plants to particular environments. Additional topics include plant-animal interactions, historical biogeography, and community assembly processes. A comparative, phylogenetic approach is emphasized. Lectures present a broad overview of topics, and discussions focus on current outstanding problems. Lab exercises provide hands-on experience in designing experiments, measuring plant performance, and scientific writing. Required laboratory hours to be arranged by the instructor. Expected: BIOL 0430 or BIOL 0440. Enrollment limited to 15.
Spr BIOL1500 S01 24007 TTh 10:30-11:50(09) (E. Edwards)

BIOL 1520. Innate Immunity.
Innate immunity is the initial response to microbes that prevents infection of the host. It acts within minutes to hours, allowing the development of the adaptive response in vertebrates. It is the sole mechanism of defense in invertebrates such as insects. The components and mechanisms dictating this response are explored. Prerequisite: BIOL 0530. Enrollment limited to 25. Instructor permission required.
Fall BIOL1520 S01 14650 MW 8:30-9:50(02) (L. Brossay)

BIOL 1540. Molecular Genetics.
Covers advanced genetic and molecular methods and their use in analysis of complex biological phenomena such as development, signaling, behavior, and disease. Discusses how these techniques are applied across an array of organisms, with special emphasis on the major eukaryotic genetic model systems (Drosophila, nematodes, mouse, yeast, Arabidopsis). Uses primary research literature to analyze the design of forward- and reverse–genetic approaches to discover novel gene function. For advanced undergraduates and beginning graduate students. Prerequisite for undergraduates: BIOL 0470 or instructor permission. Expected background: any of BIOL 0280, 0500, 1050, or 1310. Graduate students should register for BIOL 2540.
Spr BIOL1540 S01 24023 TTh 2:30-3:50(11) (J. Bender)

BIOL 1550. Biology of Emerging Microbial Diseases.
Emerging diseases influence the health of human populations in less developed countries and are expected to have similar effects worldwide. Rising incidence of “new” diseases underscores the need for knowledge of infection mechanisms and their outcomes. Focuses on biochemical, genetic, cellular and immunological events of emerging pathogens and host responses. Expected: BIOL 0470 or BIOL 0530.
Spr BIOL1550 S01 24039 MWF 1:00-1:50(05) (A. Campbell)

BIOL 1560. Virology.
Emphasizes the understanding of molecular mechanisms of viral pathogenesis. Begins with a general introduction to the field of virology and then focuses on the molecular biology of specific viruses that are associated with human disease. Lectures based on current literature. Prerequisite: BIOL 0280, 0470, or 0530, or instructor permission.
Spr BIOL1560 S01 24041 MWF 9:00-9:50(02) (P. Shank)

BIOL 1600. Development of Vaccines to Infectious Diseases.
Provides background on steps involved in vaccine development, from conceptualization to production to immunization. Considers infectious diseases and their associated vaccines in the context of community health. Appropriate for any student wanting to gain an understanding of vaccine science, and also provides a foundation for other advanced courses in immunology and infectious disease, biomedical research, or medical/graduate studies. Activities include an in–class presentation and a research paper on a topic chosen by the student. Expected: BIOL 0530 (or equivalent experience, to be vetted with instructor).
Spr BIOL1600 S01 24042 MW 3:00-4:20(13) (R. Bungiro)

How and why do animals run, jump, swim and fly? Physiology, anatomy, ecology, and evolutionary history all influence, and are influenced by, the way animals move around. We will integrate analyses from many levels of biological organization - from molecular motors, through bone-muscle systems, to biogeography - with methods and approaches from mechanics, fluid dynamics, and robotics. Expected: BIOL 0800 and PHYS 0030. Instructor permission required.
Spr BIOL1800 S01 24008 TTh 2:30-3:50(11) (S. Swartz)

BIOL 1820. Environmental Health and Disease.
Fundamental concepts relating to the adverse effects of chemical agents on human health. Topics include dose-response relationships, absorption, distribution, metabolism, excretion, mechanisms of toxicity, and the effects of the impacts of environmental toxins on organ systems. Many of these concepts will be reinforced through the use of a case-study approach where a pertinent environmental issue is incorporated into the ongoing lectures. Expected: BIOL 0500 or BIOL 0800.
Advanced students have priority.
Spr BIOL1820 S01 24083 MW 3:00-4:20(13) To Be Arranged

BIOL 1870. Techniques in Pathobiology.
A methodology course featuring laboratory and lecture instruction in established and leading-edge technologies. Examples: flow cytometry (multi-parameter analysis, cell sorting, DNA analysis, apoptosis analysis); molecular biology (PCR, in situ hybridization, southern blotting, cyto genetics, gene cloning, bioinformatics); digital imaging (image acquisition, processing and analysis); light microscopy (confocal, immunohistochemistry); transmission electron microscopy (immuno/lectin/enzyme cytochemistry); scanning electron microscopy (including x-ray microanalysis).
Spr BIOL1870 S01 24084 TTh 1:00-3:50(10) (C. Jackson)

BIOL 1880. Comparative Biology of the Vertebrates.
The biology, structure, and evolutionary history of the vertebrates considered phylogenetically, emphasizing evolution of the major body systems. Stresses an evolutionary approach to the correlation of structure and function with environment and mode of life. Labs include dissection of several different vertebrates, comparative osteological material, and a
### BIOL 1920C. Social Contexts of Disease

What shapes our understandings of disease? What makes a disease real? How might we explain the demise of formerly prevalent diseases (e.g. neurasthenia) and the arrival of others (e.g., fibromyalgia)? How do politics, technologies, and institutions like hospitals affect conceptions of disease and structure their treatment? We will examine the impact of social context on patients' experiences of disease, as well as clinical, scientific, and public health approaches to disease. We will also consider disease in relation to important social relations such as the doctor-patient relationship, the power of the state to monitor and regulate disease, disparities in the burden of disease, and the cultural care of the body. Enrollment limited to 20 juniors and seniors, required instructor permission; AB Human Biology seniors intending this as capstone will have first priority; others by permission.

**Fall BIOL1920C S01 14738 M 1:00-3:20(06)** (D. Weinstein)

### BIOL 1920D. Race, Difference and Biomedical Research: Historical Considerations

Course examines the debate over race, health, and genetics in historical context. An overarching goal is to understand how the scientific community informs the scientific questions, the design of research studies, and the interpretation of findings. How have the theories and practices of biomedical science and technology produced knowledge of "race" and racial difference historically? How does race relate to gender and class? What are the implications for understanding health inequality? Previous course work in biomedical science, history of science, science and technology studies, and Africana Studies preferred. For advanced undergraduate and graduate students. Instructor permission required. Enrollment limited to 20. WRIT

**Fall BIOL1920D S01 15192 W 3:00-5:20(14)** (L. Braun)

### BIOL 1941E. Biotechnology and Global Health

This course examines contemporary biotechnologies used to combat the predominant, worldwide problems in human health. Global health will be addressed from the scientific and engineering perspectives while integrating public health policy, health systems and economics, medical and research ethics, and technology regulation and management. This course is intended for graduate and advanced undergraduate students in biology, engineering, or related fields who have an interest in global health initiatives. Expected background: BIOL 0200 and BIOL 0800, or equivalents. Preference will be granted to graduate students in the Biotechnology and Biomedical Engineering programs. Enrollment limited to 20. Instructor permission required.

**Fall BIOL1941E S01 16511 TTh 4:00-5:20(15)** (J. Schell)

### BIOL 1950. Directed Research/Independent Study

Directed research projects supervised by individual faculty members in the Division of Biology and Medicine. Required for Sc.B. programs in Biology, Biophysics, Marine Biology, Applied Math-Biology, Biochemistry and Molecular Biology, Bioengineering, Computational Biology, and Human Biology; optional for others. Opportunities are available in both campus and hospital-based settings. Projects can serve as basis for Honors theses. Information on specific opportunities and faculty research areas are found in a research database at bms.brown.edu/bio/ pages/research.html. The site also offers a student manual, proposal forms, budget request forms, and information about Honors. Individual consultations can be scheduled with Dean Thompson. Required: A completed proposal form, sponsor's and concentration advisor's approval, and written permission and override from Dean M. Thompson (following review of proposal) prior to registering for any section of this course.

**Please see description for BIOL 1950**

### BIOL 2010. Quantitative Approaches to Biology

Graduate level introduction to quantitative and computational methods in modern biology. Topics include Programming, Modeling, Algorithms, Bioinformatics, Applied Statistics, Structural Biology, Molecular Dynamics, Enzyme Kinetics, and Population and Quantitative Human Genetics. Preference is given to graduate students in Molecular Biology, Cell Biology and Biochemistry and Molecular Pharmacology, Physiology, and Biotechnology. Limited to 20 students. Instructor permission required.

**Spr BIOL2010 S01 24014 W 2:00-5:00(07)** (W. Fairbrother)

### BIOL 2030. Foundations for Advanced Study in the Life Sciences

A double-credit graduate course on multidisciplinary experimental approaches to biological questions. Focusing on primary literature, the mechanism and regulation of basic cellular processes involving nucleic acids (synthesis, structure, maintenance and transmission) and proteins (synthesis, maturation, function) and their integration into more complex events (signaling, organelle biogenesis and inheritance, and cell cycle control) will be presented. Discussion sections complement lectures

**Fall BIOL2030 S01 14563 MTh 9:00-10:20(02)** (A. DeLong)

**Fall BIOL2030 S01 14563 F 10:15-11:35(02)** (A. DeLong)

### BIOL 2050. Biology of the Eukaryotic Cell

(Graduate students should register for BIOL 1050.)

**Fall BIOL2050 S01 16548 TTh 1:00-2:20(10)** (K. Miller)

### BIOL 2110. Drug and Gene Delivery

Topics in drug delivery systems including history of the field, advantages of controlled release technology, stabilization and release of proteins, fabrication methods, regulatory considerations, economic aspects, patents, and intellectual property rights, and more. Prepares students for research in industry and academia, and offers information for consultants in the field. Expected: BIOL 1090, 1120; CHEM 0350, 0360

**Fall BIOL2110 S01 14734 M 3:00-5:20(13)** (E. Mathiowtiz)

### BIOL 2130. Techniques in Molecular and Cell Science

This course provides hands-on laboratory training in state-of-the-art techniques in molecular and cellular sciences, and reinforces this training with didactic lectures that stress key principles, the quantitative approach and the most exciting applications of these technologies in the context of current research. Areas covered include cell culture, tissue engineering, DNA cloning, gene therapy, quantitative assays, microscopy and image analysis.

Enrollment is limited to 12; written permission required. Permission will be granted after the first class. Students MUST register for the lecture section and a lab

**Fall BIOL2130 S01 14728 TF 1:00-1:50(10)** (J. Morgan)

### BIOL 2140. Principles in Experimental Surgery

An introduction to the principles and practice of surgery, sterile technique, anesthesia, and laboratory animal care. Intended to provide highly supervised, hands-on experience in techniques for humane handling and surgical management of experimental animal subjects. Emphasizes surgical technique, anesthesia technique, and laboratory animal medicine. Primarily for graduate students. Limited to 5. Students MUST register for the lecture section and the lab. Prerequisite: BIOL 0800 and instructor's permission

**Spr BIOL2140 S01 24306 T 4:00-6:20(15)** (J. Harper)

### BIOL 2150. Scientific Communication

Focused on the effective dissemination of scientific information. Through practical examples of activities common to the profession (writing a grant proposal, presenting research work orally, and preparing a critical review of a submitted scientific manuscript), students will develop the skills necessary to effectively communicate scientific ideas, experiments and results. Each of the activities will be dissected into key sets that will be individually developed with the aid of interactive discussions and peer review. Enrollment limited to 12 graduate students

**Fall BIOL2150 S01 14567 W 2:00-4:00(06)** (J. Bender)

### BIOL 2156. Special Topics in Biotechnology Writing

Required sequel to BIOL 2155. It is intended for ScM students (Biotechnology) who are not doing lab-based research. Students choose from a list of topics and faculty mentors in the field biotechnology. Students conduct in depth research and writing with the goal of producing a final report and presentation equivalent to a professional consultant's and worthy of a ScM thesis. Meet once per week with mentors to monitor progress plus weekly background lectures relevant to all projects. With permission of the instructor it is possible to start the two-semester sequence with BIOL 2156 in spring and BIOL 2155 the following fall.
BIOL 2170. Molecular Pharmacology and Physiology.
Fundamental concepts in pharmacology and physiology from the cellular/molecular level to organ systems. Required of first-year graduate students in Molecular Pharmacology and Physiology.
Fall BIOL2170 S01 14729 MWF 10:00-11:30(03) (D. Horrigan)

BIOL 2200C. Current Topics in Biochemistry: Tuning the Central Dogma.
A critical evaluation of contemporary research in biochemistry, molecular biology, and structural biology. Intensive reading and discussion of the current literature, critical analysis, and student presentations in seminars. Advanced undergraduates with permission.
Spr BIOL2200C S01 24024 Arranged (A. Brodsky)

BIOL 2230. Biomedical Engineering and Biotechnology Seminar.
Required of all first- and second-year graduate students in the Biomedical Engineering and Biotechnology Seminar graduate program, and open to others. Concepts of drug delivery and tissue engineering, implantation biology, and cellular therapy, as well as the research projects directed by program faculty. Students present research seminars and participate in presentations by outside speakers. Includes Journal Club activities. Open to graduate students only.
Fall BIOL2230 S01 14731 T 4:30-5:30(15) (J. Morgan)

BIOL 2240. Biomedical Engineering and Biotechnology Seminar.
See Biomedical Engineering and Biotechnology Seminar (BIOL 2230) for course description.
Spr BIOL2240 S01 24078 T 4:30-5:30(15) (J. Morgan)

BIOL 2260. Physiological Pharmacology.
The objective is to present drugs in the context of the diseases they are used to treat. A list of the common medically prescribed drugs will be discussed in terms of their fundamental modes of action and clinical importance. Pertinent background biochemistry, physiology, and pathology is provided, e.g., the electrophysiology of the heart is discussed as a background to anti-arrhythmic drugs. Physiological pharmacology is relevant for students intending to go to medical school and suitable for students interested in careers, such as journalism, law, government, precollege teaching, biomedical research, and pharmacy. Expected: BIOL 0800 or equivalent course in physiology.
Fall BIOL2260 S01 16363 TTh 10:30-11:50(09) (J. Marshall)

BIOL 2270. Advanced Biochemistry.
(Undergraduate students should register for BIOL 1270.)
Fall BIOL2270 S01 16549 TTh 2:30-3:50(11) (A. Brodsky)

BIOL 2290E. Signal Transduction.
Enrollment limited to 20
Spr BIOL2290E S01 24027 Arranged (A. DeLong)

BIOL 2310. Analysis of Development.
Explores molecular mechanisms underpinning development. We will focus on cellular programming during embryogenesis and the assembly of complex tissues and organisms. Specifically, we will discuss state-of-the-art experimental approaches used to investigate how cell signaling and the regulation of gene expression converge to control tissue specification and diversification. Finally, this course will emphasize developmental processes as a driving force in evolutionary biology and in the context of cellular reprogramming for use in cell-based therapies and disease. Expected: BIOL 0200 (or equivalent), and one course in genetics, embryology, cell biology or molecular biology. Enrollment limited to 36. (Undergraduate students should register for BIOL 1310.)
Spr BIOL2310 S01 25623 TTh 9:00-10:20(08) (M. Zervas)

BIOL 2320A. Neurogenetics and Disease.
Study of genetic mutations provides a powerful approach to dissect complex biologic problems. We will focus on fascinating discoveries from “forward genetic” studies – moving from nervous system phenotype to genetic mutation discovery. There will be an emphasis of neurologic disease phenotypes and the use of novel genomic methods to elucidate the central molecular and cellular causes for these conditions. The course will emphasize the use of “reverse genetics” – engineered mutations in model systems – to dissect nervous system function and disease mechanisms. Disorders to be covered include autism, intellectual disability, schizophrenia, epilepsy. Enrollment limited to 20. Instructor permission required.
Fall BIOL2320A S01 14748 Th 4:00-5:50(14) (E. Morrow)

BIOL 2320D. The Biology of Aging.
Studying the mechanisms underlying the process of aging promises to be one of the next great frontiers in biomedical science. Understanding the biology of aging is important not only for the long-term possibility of increasing life span, but for the more immediate benefits it will have on age-related diseases. As demographics of industrialized countries have changed, age-related diseases such as cancer, cardiovascular disease, stroke, osteoporosis, arthritis and Alzheimer’s disease have assumed epidemic proportions. A thorough understanding of the aging process is an important pre-requisite for designing rational therapeutic interventions for the treatment of these age-related disorders.
We will focus on examining the biology of aging primarily through the examination of studies of a molecular, cellular, genetic and demographic nature. Lectures and presentations are based on reading of the primary and secondary literature. Advanced undergraduates with permission of the instructor.
Spr BIOL2320D S01 24026 Th 2:00-5:00(11) (S. Helfand)

BIOL 2430. Topics in Ecology and Evolutionary Biology.
Current literature in ecology, behavior, and evolutionary biology is discussed in seminar format. Topics and instructors change each semester. Representative topics include: structuring of communities, biomechanics, coevolution, quantitative genetics, life history strategies, and units of selection. Expected: courses in advanced ecology and genetics.
Fall BIOL2430 S01 16074 W 3:00-5:20(14) (D. Rand)
Fall BIOL2430 S02 16075 Arranged (E. Brainerd)

BIOL 2440. Topics in Ecology and Evolutionary Biology.
See Topics In Ecology And Evolutionary Biology (BIOL 2430) for course description.
Spr BIOL2440 S01 24066 Arranged (D. Rand)
Spr BIOL2440 S02 25399 Arranged (C. Janis)
Spr BIOL2440 S03 25400 Arranged (D. Sax)
Spr BIOL2440 S04 25401 Arranged (C. Neil)
Spr BIOL2440 S05 25402 Arranged (J. Schmitt)
Spr BIOL2440 S06 25403 Arranged (E. Brainerd)

BIOL 2450.交换学者项目．

BIOL 2540. Molecular Genetics.
(Undergraduate students should register for BIOL 1540.)
Spr BIOL2540 S01 25625 TTh 2:30-3:50(11) (J. Bender)

BIOL 2640A. Viral Immunology.
Viral Immunology is an advanced topics course in Microbiology and Immunology which will be focused on viral immunology. Weekly meetings will cover different issues concerning defense against viral infections and pathology related to viral infection, with focus on viral-host interactions. Topics will be selected to present either important basic concepts in the context of immune responses and/or major challenges in controlling viral infections. Recent advances in understanding virus-host interactions, host responses to viruses, cytokine regulation of immune responses or cytokine-mediated pathology during viral infections will be emphasized.
Spr BIOL2640A S01 24043 Arranged (C. Biron)

BIOL 2840E. Topics in Cancer Biology.
No description available
Spr BIOL2840E S01 24402 Arranged (To Be Arranged)
BIOL 2840F. Pathobiological Basis of Disease: Intrinsic and Environmental Regulators.
No description available.
Spr BIOL2840F S01 24088 Arranged
(S. DeLaMonte)

BIOL 2840. Human Health, the Environment, and Public Policy.
This course examines intersections between human health, collective action for environmental justice, and responses from public policy and professional institutions charged with protecting human and environmental health. We focus on case studies, including: uranium contamination, human health outcomes, and institutional response in the American Southwest; and outcomes in Libby, Montana, site of prolonged asbestos exposure and the nation’s first declared ‘public health emergency.’ Throughout, we analyze the Environmental Protection Agency and Agency for Toxic Substances and Disease Registry responses. This course takes a critical sociological approach to related intersections. Organized as a seminar, students have an opportunity to shape class discussions. Expected course background to include physiology or cell biology. Enrollment limited to 20
Spr BIOL2840I S01 24086 T 4:00-6:20(15) (S. Malin)

BIOL 2860. Molecular Mechanisms of Disease.
Examines research and modern techniques, emphasizing infectious disease and environmental exposures correlating histopathology with molecular pathogenesis: cell injury, inflammation, genetic disorders, cancer, and developmental and reproductive disorders. Expected: BIOL 1290, 2050 (other 1000-level biology course with approval). Textbook plus primary literature. Required for Pathobiology graduate students, written permission for other graduate or M.P.H. students.
Fall BIOL2860 S01 14739 MW 1:00-2:20(06) (A. Kane)

BIOL 2940A. Molecular Pharmacology and Physiology Seminar.
Professional development seminar required of all first year graduate students in the Molecular Pharmacology and Physiology Graduate Program, and open to graduate students in other programs. Topics include grants and funding, effective oral presentation skills, alternative careers in science, and others. All students will be required to present a research seminar during the scheduled class time. Instructor permission required for graduate students outside the Molecular Pharmacology and Physiology Graduate Program. Not intended for undergraduate students. 999999
Spr BIOL2940A S01 24079 W 9:30-10:50(02) (D. Horrigan)

BIOL 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination
BIOL 2980. Graduate Independent Study.
Independent study projects at the graduate level. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
BIOL 2985. Graduate Seminar.
Section numbers vary by instructor. Please see the registration staff for the correct section number to use when registering for this course

BIOL 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis
BIOL 2995. Thesis.
Section numbers vary by instructor. Please see the registration staff for the correct section number to use when registering for this course

BIOL XLIST. Courses of Interest to Biology Concentrators.
Fall 2012
The following courses may be taken for concentration credit. Please see the sponsoring department for the time and location of each course.

Environmental Studies
ENVS 0455 Coastal Ecology and Conservation
ENVS 0490 Environmental Science in a Changing World

BioMed-Neuroscience
NEUR 0010. The Brain: An Introduction to Neuroscience.
Introduction to the mammalian nervous system with emphasis on the structure and function of the human brain. Topics include the function of nerve cells, sensory systems, control of movement and speech, learning and memory, emotion, and diseases of the brain. No prerequisites, but knowledge of biology and chemistry at the high school level is assumed
Fall NEUR0010 S01 14512 TTh 1:00-2:20(10) (M. Paradiso)

Examines the sensory and perceptual system for hearing: the external, middle, and inner ears; the active processes of the cochlea; sound transduction and neural coding; neural information processing by the auditory system; and the nature of auditory perception and its biological substrate. Prerequisite: an introductory course in Neuroscience, Cognitive Science, Physics, Engineering or Psychology.
Spr NEUR0650 S01 24553 MWF 1:00-1:50(08) (J. Simmons)

NEUR 0700. Psychoactive Drugs and Society.
Will examine psychoactive drugs from two perspectives: (1) biological mechanisms of drug action and (2) the impact of psychoactive drug use on society and society attitudes towards psychoactive drug usage. Drugs to be discussed will include alcohol, opiates, cocaine, marijuana, LSD, nicotine and caffeine, as well as drugs used therapeutically to treat psychiatric disorders. This course will benefit students who are interested in exploring both the biological and social aspects of psychoactive drug use. Prerequisite: NEUR 0100 or equivalent
Spr NEUR0700 S01 24554 MW 3:00-4:20(02) (R. Patrick)

NEUR 1020. Principles of Neurobiology.
A lecture course covering fundamental concepts of cellular and molecular neurobiology. Topics include structure of ion channels, synaptic transmission, synaptic development, molecular mechanisms of synaptic plasticity, learning and memory and neurological diseases. Prerequisite: NEUR 0010. Strongly recommended. BIOL 0200 or equivalent
Spr NEUR1020 S01 24556 TTh 9:00-10:20(06) (C. Aizenman-Stern)

NEUR 1540. Neurobiology of Learning and Memory.
Exploration of learning and memory from the molecular to the behavioral level. Topics will include declarative and procedural memory formation and storage, associative and non-associative learning, cellular and molecular mechanisms for learning, and disorders affecting learning and memory. Examples will be drawn from numerous brain areas and a variety of model systems, including humans. Students will gain experience interpreting experiments from primary literature. Prerequisite: NEUR 1020 Spr NEUR1540 S01 25246 MW 2:00-2:50(07) (M. Linden)

NEUR 1600. Experimental Neurobiology.
Intensive laboratory experience in neuroscience appropriate for students with basic background in Neurobiology. Learn and employ the classical neurophysiological techniques of extracellular recording, intracellular recording and receptive field mapping using a variety of animal species. Experiments will include recording of sensory signals in the cockroach leg; frog sciatic nerve and sciatic nerve/muscle preparation; intracellular recording of neurons in Aplysia; receptive field mapping in frog skin; and visual field mapping in the frog tectum. Labs are supplemented by informal lectures. Prerequisites: NEUR 0010, 1020, and PHYS 0030; or equivalent. Instructor permission required. Enrollment limited to 18. Sign up sheet in Sidney Frank Hall, Room 315 beginning November 6, 2012
Spr NEUR1600 S02 25193 W 1:00-5:50(06) (J. Stein)

NEUR 1650. Structure of the Nervous System.
Combined lecture and laboratory course on the anatomy of the central nervous system. Lectures survey the circuitry of the major neural systems for sensation, movement, cognition, and emotion. Laboratory exercises (Mon. 10:30-12:30) include brain dissections, microscopy of neural tissue, and discussion of clinical cases. Prerequisites: NEUR 0010, 1020, and
NEUR 1670. Neuropharmacology and Synaptic Transmission.
Synaptic transmission will be studied from a biochemical and pharmacological point of view. We will explore the factors regulating neurotransmitter synthesis, storage, release, receptor interaction, and termination of action. Proposed mechanisms of psychoactive drugs and biochemical theories of psychiatric disorders will be examined. Prerequisites: NEUR 0010 and BIOL 0200 or the equivalent Fall NEUR1670 S01 15261 TTh 2:30-3:50(11) (D. Benson) or NEUR1670 S02 15262 TTh 9:00-10:20(08) (R. Patrick)

NEUR 1680. Computational Neuroscience.
A lecture and computing lab course providing an introduction to quantitative analysis of neural activity and encoding, as well as modeling of neurons and neural systems. Emphasizes Matlab-based computer simulation. Prerequisites: NEUR 0010, 1020 or 1030; APMA 0410 or 1650, or equivalent. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 6, 2012. Instructor permission required Fall NEUR1680 S02 24575 Arranged or Spring NEUR1680 S01 25489 Arranged (L. Bienenstock)

NEUR 1740. The Diseased Brain: Mechanisms of Neurological and Psychiatric Disorders.
The goal of this course is to illustrate what basic science can teach us about neurological disorders and how these pathologies illuminate the functioning of the normal nervous system. Consideration will be given to monoallelic diseases (e.g., Fragile X Syndrome, Duchenne Muscular Dystrophy and Tuberous Sclerosis) as well as genetically complex disorders, such as Autism, Schizophrenia and Alzheimer’s Disease. Emphasis will be on the cellular and molecular basis of these disorders and how insights at these levels might lead to the development of therapies. Prerequisites: NEUR 0010, 1020 or 1030; APMA 0410 or 1650. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 6, 2012. Instructor permission required Spring NEUR1740 S01 24564 TTh 10:30-11:50(09) (J. Fallon)

NEUR 1930M. Neural Dynamics.
What is Neural Dynamics? The ability of the same brain system (e.g., a neuron, cortical column, striosome or cortic-striatal loop) to demonstrate substantial differences in its range of operations (e.g., changes in response gain) and/or perform multiple computations (e.g., detection or discrimination, motor control or sequence learning). The term ‘dynamics’ in this context indicates that this brain system can shift between these computational modes or ranges of operation on a millisecond to seconds time scale. Prerequisite: NEUR 0010. Enrollment limited to 15 Fall NEUR1930M S01 16645 W 1:00-3:50(06) (C. Moore) or Spring NEUR1930M S01 24560 TTh 10:30-11:50(09) (J. Fallon)

NEUR 1940B. Neuroethology.
Neuroethology is concerned with the neural systems serving such naturally occurring behaviors as orientation in the environment, finding food, predator detection, social communication, circadian and seasonal rhythms, and locomotion and tracking. This seminar will examine selected examples of the neuroethological approach to analysis of brain function, which sometime leads to conclusions different from those of laboratory-based experiments on traditional animal models. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 6, 2012. Instructor permission required Spring NEUR1940B S01 25188 Arranged (J. Simmons)

Laboratory-oriented research in neuroscience, supervised by staff members. A student, under the guidance of a neuroscience faculty member, proposes a topic for research, develops the procedures for its investigation, and writes a report of the results of his or her study. Independent study may replace only one required course in the neuroscience concentration. Prerequisites include NEUR 0010, 1020 and 1030. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Permission must be obtained from the Neuroscience Department Fall NEUR1970 S01 16190 Arranged (D. Sheinberg) or Winter NEUR1970 S01 16241 Arranged (D. Sheinberg) or Spring NEUR1970 S01 25161 Arranged (D. Sheinberg)

See Graduate Pro-Seminar In Neuroscience (NEUR 2010) for course description Fall NEUR2020 S01 25489 Arranged (D. Sheinberg)

NEUR 2030. Advanced Molecular and Cellular Neurobiology I.
Focuses on molecular and cellular approaches used to study the CNS at the level of single molecules, individual cells and single synapses by concentrating on fundamental mechanisms of CNS information transfer, integration, and storage. Topics include biophysics of single channels, neural transmission and synaptic function. Enrollment limited to graduate students Fall NEUR2030 S01 15269 Arranged (D. Sheinberg)

NEUR 2040. Advanced Molecular and Cellular Neurobiology II.
This course continues the investigation of molecular and cellular approaches used to study the CNS from the level of individual genes to the control of behavior. Topics include patterning of the nervous system, generation of neuronal diversity, axonal guidance, synapse formation, the control of behavior by specific neural circuits and neurodegenerative diseases. Enrollment is limited to graduate students Fall NEUR2040 S01 25194 Arranged (D. Sheinberg)

Focuses on systems approaches to study nervous system function. Lectures and discussions focus on neurophysiology, neuroimaging and lesion analysis in mammals, including humans. Computational approaches will become integrated into the material. Topics include the major sensory, regulatory, and motor systems. Enrollment limited to graduate students Fall NEUR2050 S01 15868 Arranged (D. Sheinberg)

NEUR 2060. Advanced Cognitive Neuroscience.
Focuses on cognitive approaches to study nervous system function. Lectures and discussions focus on neurophysiology, neuroimaging and lesion analysis in mammals, including humans. Computational approaches will become integrated into the material. Topics include the major cognitive systems, including perception, decisions, learning and memory, emotion and reward, language, and higher cortical function. Instructor permission required Spring NEUR2060 S01 25195 Arranged (D. Sheinberg)

NEUR 2160. Neurochemistry and Behavior.
Examines behavior from a neurochemical perspective via readings and discussions based on original research articles. Intended primarily for graduate students with a strong background in neurochemistry and neuropharmacology and advanced undergraduates with an appropriate background. Offered alternate years. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 6, 2012 Fall NEUR2160 S01 25196 Arranged (R. Patrick)

Many of the cellular and molecular mechanisms that underlie behavior are conserved across species. This seminar course draws on work in invertebrate and vertebrate species to examine the genes and molecules that have been implicated in diverse behaviors. Topics to be discussed include circadian rhythms, pair bonding, migration, and aggression. Each week, students will read two to three papers from the primary literature and actively participate in class discussion. Prerequisites: NEUR 0010 and NEUR 1020 (undergraduate students) or NEUR 2030 (graduate students). Enrollment limited to 13. Instructor permission required Fall NEUR2290 S01 15621 Arranged (A. Hart)

NEUR 2930E. Bench to Bedside: Unraveling Diseases of the Nervous System.
Enrollment restricted to graduate students Fall NEUR2930E S01 15869 Arranged (D. Lipscowme)

NEUR 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

NEUR 2980. Graduate Independent Study.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. S/N/C

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
**NEUR 2990. Thesis Preparation.**
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

**BioMed-Community Health**

**PHP 0030. Health of Hispaniola.**
Two developing countries, Dominican Republic and Haiti, have widely differing health outcomes despite centuries of shared experience on the Caribbean Island of Hispaniola. This course will examine the history, politics, economics, culture, international relations, demography, and geography, as well as epidemiology and health services, to demonstrate that multiple factors, both recent and long-standing, determine the present health of these populations. Enrollment limited to 20 first year students. Instructor permission required. FYS

**PHP 0040. Addiction: The Causes, Cures and Consequences of Substance Abuse in Modern Society.**
Addiction has been recognized by the psychological and medical community as a chronic, physical disease, affecting the body in ways which mirror the mechanisms of other neurological disorders. However, despite definitive research suggesting the genetic and physical roots of addiction disorders, the disease of addiction still faces significant prejudice from laws and society seeking to place blame upon addicts themselves. Stereotypes and misconceptions that cast addicts as morally corrupt deviants lacking in will power still pervade cultural and political discourse, creating and maintaining powerful stigmas that prohibit addicts and their families from seeking care. Enrollment limited to 20 first year students. FYS WRIT

**PHP 0310. Health Care in the United States.**
Introduction to the health care delivery system. An overview of the U.S. health services financing, delivery and regulatory system. Considers the interaction between paying for and providing and assuring the quality of health services; changes in one component of the system inevitably affect the others. Addresses the balance between employer funded health insurance, publicly funded health insurance and the consequences of not being insured. Seven discussion sections arranged during the semester. Open to undergraduates only

**PHP 0320. Introduction to Public Health.**
An introductory overview of the U.S. Public Health System with an emphasis on the core functions of public health, challenges and strategies for working with communities, and specific health issues that impact the health of the population. Presents a comprehensive overview of the environmental and behavior factors associated with health promotion and disease prevention

**PHP 1070. The Burden of Disease in Developing Countries.**
Defines and critically examines environmental, epidemiologic, demographic, biomedical, and anthropological perspectives on health and disease in developing countries. Emphasis on changes in the underlying causes of morbidity and mortality during economic development. Focuses on the biosocial ecology of diseases. Guest lecturers cover different diseases and public health perspectives. Enrollment limited to 80. Instructor permission required. Special application form available at the International Health Institute website: bms.brown.edu/ihi/ DVPS LILE WRIT

**PHP 1100. Comparative Health Care Systems.**
Focuses on principles of national health system organization and cross-national comparative analysis. Emphasizes application of comparative models to the analysis of health and health-related systems among nations at varying levels of economic development and health care reform. Addresses research questions related to population health and systems’ performance. Questionnaire completion required. Enrollment limited to 30

**PHP 1320. Survey Research in Health Care.**
An introduction to the methodology of survey research as it is conducted by social scientists and epidemiologists. Provides an overview of all aspects of study design and instrument development as well as an introduction to statistical analysis of survey data. Prerequisite: PHP 0320. Students should fulfill the department’s statistics requirement prior to taking, or concurrently with, this course

**PHP 1520. Emergency Medical Systems: An Anatomy of Critical Performance.**
Problems and issues surrounding delivery of emergency medical services in U.S. Topics: cost of illness; rationing health care; living wills; malpractice and its effects; alcohol and other risk behavior. Priority to community health concentrators and PLME students pursing MPH degree. Enrollment limited to 60

**PHP 1530. Case Studies in Public Health: The Role of Governments, Communities and Professionals.**
This course provides an integrated knowledge of the public health’s development, policy, practice and infrastructure and its relationship to medical care, social services and the environment. The matrix approach juxtaposes public health content (e.g., infectious disease) and public health tools (e.g., behavioral theory, policy/advocacy/epidemiology/quality improvement/program planning) using case studies. It aims to strengthen students’ capacity to apply a population-based viewpoint to public health practice. Prerequisite: PHP 0320. Enrollment limited to 40

**PHP 1540. Alcohol Use and Misuse.**
Reviews the epidemiology of alcohol use, abuse, and dependence and examines its neurobiological and behavioral underpinnings. Covers etiology including physiological, genetic, psychological and social cultural influences, and prevention, brief intervention and treatment considerations. Course background in psychology, sociology, or community health is recommended. Recommended prerequisites: PHP 0320 and PSYC 0010. Enrollment limited to 20 juniors, seniors, and graduate students

**PHP 1550. Introduction to Conducting Clinical Research.**
This course is intended to help students become familiar with the design and implementation of clinical research, including ethical and logistical processes related to collecting data and interpretation of published medical literature. In addition to weekly sessions, the course requires 4-6 hours weekly in the Emergency Department at Rhode Island Hospital enrolling patients in clinical trials. As students will be directly exposed to patient and clinical care, the course is limited to 12 students for the semester. Interested students should contact the course director to be considered for enrollment (contact: tseigel@lifespan.org). Not open to first year students. Instructor permission required

**PHP 1680T. Translation, Diffusion and Cultural Relevance of Health Promotion Interventions.**
Intended to help students become familiar with three key aspects of disease prevention/health promotion programs: (1) how findings from “basic” behavioral and social science (BSS) research are tested for effectiveness in real-life settings (translation); (2) how programs with demonstrated effectiveness, in one or more local settings, are introduced and adopted more broadly (diffusion); and (3) how cultural relevance is involved in both translation and diffusion. Translation and Diffusion will comprise the two main sections of the semester. Cultural relevance will be a theme integrated into each part of the course. Appropriate for BSSI, MPH, and advanced undergraduate students with coursework in public/community health. Open to juniors and seniors only.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
**PHP 1700. Current Topics in Environmental Health.**

This course is designed to introduce students to the field of environmental health, and demonstrate how environmental health is integrated into various aspects of our lives, both directly and indirectly. Topics to be covered include: toxic metals, vector-borne disease, food safety, water quality, radiation, pesticides, air quality, hazardous waste, risk assessment, and the role of the community in environmental health. Several topics will be presented by guest speakers so that students can learn from the expertise of professionals in the field. Enrollment limited to 40.

**Spr PHP1700 S01 25041 TTh 11:00-12:20(09) (W. Rakowski)**

**PHP 1740. Principles of Health Behavior and Health Promotion Interventions.**

Examines health behavior decision-making and elements for design of health promotion interventions. Covers theories of health behavior (focusing on primary and secondary prevention), principles of intervention design, and reading of research literature. Emphasizes psychological, social, and proximate environmental influences on individuals’ health-related behaviors. Restricted to juniors, seniors, and graduate students. Prerequisite: PHP 0320 or equivalent. Enrollment limited to 25.

Fall PHP1740 S01 15501 TTh 2:30-3:50(11) (W. Rakowski)

**PHP 1910. Community Health Senior Seminar.**

Disparities in health and health care have been documented in the U.S. and globally. Students will develop a needs assessment relevant to health disparities at the local or global level; systematically review, synthesize, and critique a body of literature; use knowledge and tools from previous public health classes to pose a research question, and then find, create and manipulate data to perform appropriate analysis; interpret and present study results; and learn to work collaboratively towards a specific public health research goal. Prerequisite: PHP 0310, 0320, and 1320. Open to Senior Community Health concentrations only.

Fall PHP1910 S01 15508 M 3:00-5:20(13) (O. Galarraga)

**PHP 1920. Social Determinants of Health.**

The course provides an overview of social determinants of health. Examples of topics include health effects of educational attainment, social integration, neighborhood socioeconomic characteristics, racial discrimination, gender, income inequality, childhood socioeconomic circumstances, parental neglect, and job strain. Mixed teaching methods are used, including small group discussions, problem-based learning and guest lectures. Open to graduate students and advanced undergraduates.

Fall PHP1920 S01 16379 T 1:00-3:20(09) (E. Loucks)

**PHP 1970. Independent Study.**

A special project may be arranged in consultation with an individual faculty sponsor. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**PHP 1980. Honors Thesis Preparation.**

Two semesters of PHP 1980, Honors Thesis Preparation, will be devoted to the development and implementation of an Honors project, and of the writing of the Honors Thesis for the Community Health Concentration.

**PHP 2019. Measurement Issues in Health Care.**

Provides a theoretical and practical basis for measurement in health care. Introduces measurement theory, scale development, and criteria to be considered when choosing measures in clinical practice and research. Practical exercises include: learning about types of data, development and use of a written research proposal for the development and validation of a new measure. Prerequisites: PHP 2120, 2130.

**Spr PHP2019 S01 25048 Th 2:30-4:50(15) (V. Mor)**

**PHP 2030. Clinical Trials Methodology.**

We will examine the modern clinical trial as a methodology for evaluating interventions related to treatment, rehabilitation, prevention and diagnosis. Topics include the history and rationale for clinical trials, ethical issues, study design, protocol development, sample size considerations, quality assurance, statistical design, systematic reviews, meta-analysis, and reporting of results. Extensively illustrated with examples from various fields of health care research. Recommended prerequisites: introductory epidemiology and statistics. Pre-requisites: PHP 2120, and either PHP 2508, 2510, or 2520. Open to graduate students only.

Fall PHP2030 S01 15509 M 1:00-3:20(06) (T. Wetle)

**PHP 2040. Applied Research Methods.**

Emphasizes the theory of sampling and survey methods and their application to public health research. Topics include: survey design and planning; principles of sampling and survey terminology; questionnaire construction; protection of human subjects; data collection (including interviewing and data coding procedures); and application, presentation, and evaluation of results. Suggested prerequisites: PHP 2120, and PHP 2508 or 2510. Open to graduate students only.

**Spr PHP2040 S01 25121 M 5:30-8:30PM(18) (M. Clark)**

**PHP 2060. Qualitative Methods in Health Research.**

Introduces qualitative approaches to data collection and analysis in health research. Methods covered include: participant observation, key-informant interviews, focus groups, innovative data collection strategies, and non-obtrusive measures. Students will use applied projects to develop skills in: qualitative data collection and management, interviewing, transcript analysis using computerized software, triangulation between qualitative and quantitative data, and report preparation for qualitative studies. Enrollment limited to 20 graduate students.

**Spr PHP2060 S01 25060 M 3:30-6:30PM(11:20(02) (T. Wettle)**

**PHP 2070. Public Health/Community Service Internship.**

This course is an introduction to the history, organization, resources, concepts and issues of public health and health care. Students will be matched according to their interests in a related practical experience in a health-related organization, with the expectation that they complete a project or produce a product of public health utility. This gives students an opportunity to critically analyze knowledge and skills learned in didactic sessions. Instructor’s permission required. S/NC.

Fall PHP2070 S01 15684 Arranged (P. Vivier)

**Spring PHP2070 S01 25050 Arranged (P. Vivier)**

**PHP 2090. Scientific Writing in Public Health.**

Addresses methodologic and operational issues associated with developing research studies in epidemiology (including clinical trials). Emphasizes the theory of sampling and survey methods and their application to public health research.

**Fall PHP2090 S01 25142 W 1:00-3:20(09) (E. Loucks)**

**PHP 2100. Introduction to Methods in Epidemiologic Research.**

Epidemiology quantifies patterns and determinants of human population health, with a goal of reducing the burden of disease, injury, and disability. An intensive first course in epidemiological methods, students learn core principles of study design and data analysis through critiques of published epidemiological studies as well as hands on practice through weekly exercises and assignments. This is a graduate-level course aimed at masters and PhD students. The course is not open to first year students or sophomores but may be available for advanced undergraduates with the instructor’s permission.

Fall PHP2100 S01 15510 TTh 10:30-11:50(09) (M. Lurie)

**PHP 2150. Foundations in Epidemiologic Research Methods.**

The overall objective of this course is to provide students with a strong foundation in epidemiologic research methods. This is the first of a two- or four-course sequence in epidemiologic research methods aimed at students who expect to go on to conduct their own epidemiologic research. There will be a strong quantitative focus in this course. By the end of the foundations course, students should be sufficiently familiar with epidemiologic research methods to begin to apply these methods to their own work. Prerequisite: PHP 2507 or 2510 (either may be taken concurrently); the typical student will also have some introductory knowledge of epidemiology.

Fall PHP2150 S01 16396 TTh 10:30-11:50(09) (E. Triche)

**PHP 2170. Injury As A Public Health Problem.**

Injury causes significant morbidity and mortality in the U.S. and across the globe. However, injuries – both violent and non-violent – are eminently preventable. The overarching objective of this course is to enable students to understand the magnitude of the injury and violence problem and...
strategies to improve public health through injury prevention. Prerequisite: PHP 2120 (may be taken concurrently) or instructor permission. Enrollment limited to 20 graduate students.

Fall PHP2170 S01 15775 M 1:00-3:20(06) (M. Mello)

**PHP 2200. Intermediate Methods in Epidemiologic Research.**
Reinforces the concepts and methods taught in PHP 2120, with in-depth instruction in study design, confounding, model construction, measurement error, estimation, effect modification, and causal inference. Prerequisites: PHP 2120 and 2510. Co-requisite: PHP 2511. Open to graduate students only
Spr PHP2200 S01 25145 MW 1:00-2:20(06) (G. Wellenius)

**PHP 2220A. Epidemiology of Violence and Its Consequences.**
Overview of the epidemiology of intentional injury within the social context. Selected topics include homicide, suicide, child abuse, intimate partner violence and family violence, sexual assault, elder mistreatment and officially sanctioned violence. Methodological challenges for epidemiologists, and the role of guns and substance use are examined. Prerequisite: PHP 2120 or knowledge of elementary epidemiologic methods. Enrollment limited to 10
Spr PHP2220A S01 25146 Arranged

**PHP 2220C. Perinatal Epidemiology.**
Provides an overview of topics related to reproduction, maternal and fetal outcomes of pregnancy, and longer term consequences of adverse pregnancy outcomes. Methodological issues unique to reproductive and perinatal epidemiology are discussed, as well as general epidemiologic methods as applied to topics in reproductive and perinatal epidemiology. Students are expected to actively participate in class discussions, lead discussions related to selected topics by providing an overview of the biology, descriptive epidemiology, and known risk factors of the topic, along with a detailed critique of recently published articles on the topic. Open to graduate students only
Spr PHP2220C S01 25147 Arranged (S. Buka)

**PHP 2220E. Topics in Environmental and Occupational Epidemiology.**
Introduces students to the subject matter of environmental and occupational epidemiology, focusing on the major environmental threats to health and provides the methodologic tools to evaluate and extend the evidence linking those exposures to disease through studies of populations. Key themes that are pertinent to the full spectrum of issues involve the challenge of assessing exposure to potential toxicants both in the workplace and community, isolating the effects of environmental agents from associated socioeconomic and lifestyle contributors to disease, and the application of epidemiologic evidence to environmental and occupational health policy. Open graduate students only. Prerequisite: PHP2120 or equivalent
Spr PHP2220E S01 25148 Arranged **"To Be Arranged"**

**PHP 2250. Advanced Quantitative Methods in Epidemiologic Research.**
This course provides students with conceptual and quantitative tools based on counterfactual theory to make causal inference using data obtained from observational studies. Causal diagrams will be used to provide alternative definitions of and inform correcting for common biases. Non-, semi-, and fully parametric methods for addressing these biases will be discussed. These methods include standard regression, instrumental variables, propensity scores, inverse probability weighting, and marginal structural models. Settings when such methods may not be appropriate will be emphasized. Prerequisite: PHP 2200 and 2511; or PHP 2200 and 2508; or instructor permission. Enrollment limited to 25 graduate students
Fall PHP2250 S01 16144 TTh 10:30-11:50(10) (C. Howe)

**PHP 2300. Research Methods in Behavioral Science.**
This course provides students with fundamental principles of behavioral and social research methodology for understanding the determinants of public health problems, and for executing and testing public health interventions. We will focus on experimental methods, observational studies, and qualitative approaches. We will develop skills in understanding and interpreting data—both quantitative and qualitative. Throughout the course we will emphasize ethical, cultural, and professional issues for designing public health interventions. Prior coursework in research methodology and quantitative methods is recommended but not required. Open to graduate students and advanced undergraduates. Enrollment limited to 15
Fall PHP2300 S01 15665 W 1:00-3:20(06) (D. Operario)

**PHP 2310. Physical Activity and Public Health.**
This course examines physical activity and health with an emphasis on the development of behavioral interventions to increase physical activity. Students gain knowledge of the impact of physical activity on health outcomes as well as differences in physical activity among subpopulations. They are introduced to behavioral theories, intervention design approaches, measurement issues, and methods that are relevant to physical activity. Through seminar discussions, a group project, and presentations, students engage with the material and gain skills in the development and evaluation of behavioral interventions. Students with an interest in behavioral interventions and physical activity will benefit from taking the course. Recommended prerequisites: PHP 1740, 2320, or 2360. Enrollment limited to 20. Open to graduate students and seniors concentrating in Community Health
Spr PHP2310 S01 25306 Th 2:30-4:50(11) (D. Williams)

**PHP 2340. Behavioral and Social Science Theory for Health Promotion.**
This course will help students become familiar with behavioral and social science theories commonly used for planning disease prevention/health promotion interventions. In addition to review of specific theories, topics to be discussed include: how theories are developed and tested; challenges and potential pitfalls in using theory for intervention planning; and creation of causal diagrams based on concepts from theories. Undergraduates need permission of instructor; priority will be for Community Health concentrators. Enrollment limited to 25
Fall PHP2340 S01 15677 Th 12:00-2:20(10) (D. Williams)

**PHP 2350. Economics of Medical Therapies: Health Policy and Practice.**
Introduces methods and applications of decision analysis, cost-effectiveness analysis, and benefit-cost analysis in public health policy and practice, including health care technology assessment, medical decision making, and health resource allocation. Examines technical features of these methods, problems associated with implementing them, and advantages and pitfalls in their application in setting public health policy. Open to juniors, seniors, and graduate students
Spr PHP2350 S01 25051 W 12:30-2:50(05) (J. Bentkover)

**PHP 2360. Designing and Evaluating Public Health Interventions.**
Aims to develop skills in designing and evaluating public health interventions. Levels of intervention include the individual; families or small groups; organizations such as schools, worksites, health care settings; communities; social marketing and health communications; policy and environmental changes. Will identify personal and environmental factors that affect public health and discuss needs assessment, formative research, cultural sensitivity, behavior change theories, intervention mapping, process and impact/outcome evaluation and dissemination. Students will critique intervention studies and gain experience in developing a hypothetical behavior change intervention. Graduate students and AB-MPH undergraduates only. 999999
Spr PHP2360 S01 25042 W 3:00-5:20(14) (K. Gans)

**PHP 2371. Psychosocial and Pharmacologic Treatment of Substance Use Disorders.**
Intended to provide an overview of the history of the treatment of substance use disorders; assessment methods designed to determine progress in substance use treatment; and the current most common types of psychosocial and pharmacologic treatments for substance use. Enrollment limited to 20 graduate and medical students. Instructor permission required
Fall PHP2371 S01 15667 F 1:10-3:30(06) (P. Monti)

**PHP 2380. Health Communication.**
This class will explore Health Communication, with a focus on behavioral and social science interventions delivered through health communication programs. The course is structured so that basic building blocks (i.e., definitions of health communication, public health context for health communications interventions, theories of health communication and health behavior change) are presented sequentially early in the semester. Students will synthesize knowledge and demonstrate their

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
understanding of the role of health communication through a final research project. Seniors with concentration in Community Health may enroll with instructor’s permission. Enrollment limited to 20 graduate and medical students

Spr PHP2380 S01 25039 M 2:30-4:50(13) (K. Carey)

PHP 2390. Quantitative Methods for Behavioral and Social Sciences Intervention Research.
This course provides broad coverage of the quantitative methods used in behavioral intervention research ranging from descriptive data analysis to longitudinal methods. Students will learn to conduct, interpret, and write up a range of statistical procedures including basic psychometrics, t-tests and ANOVAs, correlations, and multiple regression. Students also will be introduced to more advanced techniques used for longitudinal data analysis in order to understand their common uses in behavioral intervention research. The course provides students in the Master’s program in Behavioral and Social Sciences Intervention the requisite skills to conduct analyses of behavioral data as part of their Master’s Thesis. Enrollment limited to 15 graduate students in the BSSI Master’s program and the MPH program

Spr PHP2390 S01 25589 F 9:30-11:50(03) (C. Kahler)

Reviews the development of the health care delivery, financing and regulatory control systems in the U.S. and reviews the literature on the relationship between health system structure and the services used and health outcomes that populations experience. A case-study approach is used to understand the inter-relationship between financing, delivery and regulatory components of the health system and their implication for public health by drawing on epidemiological, economic, political and sociological principals. Prerequisites: Graduate standing or PHP 0310 or PHP 0700 (not available to first year students or sophomores). Instructor permission required

Fall PHP2400 S01 15679 MW 10:30-11:50(03) (C. Koller)

PHP 2410E. Medicare: A Data Based Policy Examination.
This course will explore the role of Medicare as America’s health insurer for the elderly and disabled through the use of real Medicare insurance claims data, examining how Medicare policy changes in financing and regulation have affected the delivery and receipt of medical services. At the end of the course students will: 1) know the history of important Medicare policy changes; 2) be able to construct aggregated patient case mix acuity adjusted measures of provider quality using insurance claims data; 3) be able to conduct policy analyses using Medicare claims data that are sensitive to standardized coding schemes. Enrollment limited to 15 graduate students. Prerequisite: PHP 2120, 2508, or 2510. Instructor permission required

Fall PHP2410E S01 15680 Th 12:00-2:20(10) (V. Mor)

PHP 2430. Analysis of Population Based Datasets.
Epidemiologic, health services, and social research often conducts “secondary analysis” of existing population-based datasets. Benefits include their representative sampling frames allowing generalizability to larger populations, timeliness, and lower cost. In addition, computer technology makes it possible to link some databases providing richer sources of information. There are several technical and methodological concerns when conducting “secondary analysis.” Students will download, link, and analyze several data sets to understand the advantages of these data for health policy analysis as well as understand and apply different analytic methods. Familiarity with statistical analysis software is required. Prerequisites: PHP 2120, and either PHP 2508 (may be taken concurrently) or 2510. Open to graduate and medical students only

Spr PHP2430 S01 25149 F 10:00-12:30(03) (O. Galarraga)

PHP 2440. Introduction to Pharmacoepidemiology.
The course will focus on substantive topics in pharmacoepidemiology, including relevant principles of pharmacology, inference from spontaneous case reports, study design considerations, pharmacoepidemiology, common data sources for pharmacoepidemiologic studies, drug utilization review, adherence, and the development, implementation, and assessment of therapeutic risk management policies. The course will also focus on issues in pharmacovigilance, including the legal and historical basis of pharmacovigilance, evaluation of individual adverse drug events, signal detection, active safety surveillance, and medication errors. A clinical background is not required. Prerequisites are PHP2120 and PHP2510 (or PHP2507) or permission of the instructor

Fall PHP2440 S01 15682 M 3:00-5:20(13) (D. Dore)

PHP 2450. Measuring and Improving the Quality of Health Care.
The quality of health care in the United States is in urgent need of improvement. This course will focus on the science of measuring and improving the quality of health care. Topics will include quality assessment, patient safety, medical errors, public reporting, financial incentives, organizational change, and health care disparities. Students will engage in a team-based quality improvement project. Open to graduate and medical students only

Fall PHP2450 S01 15681 F 9:30-11:50(03) (A. Trivedi)

PHP 2451. Exchange Scholar Program.

PHP 2470. Topics in Clinical, Translational and Health Services Research.

Through a combination of mini-courses and seminars, students will explore concepts, gain knowledge and develop skills in a variety of public health areas. To receive a half credit for this course, students will be required to successfully complete 70 units. Units must be pre-determined by the course instructor and the unit instructor. Units are generally based on the number of in-person contact hours and the number of outside of class/homework hours required for a mini-course or seminar. Students must receive special permission from the instructor or be accepted to the Clinical and Translational Research Summer Institute to enroll

Fall PHP2470 S01 15683 Arranged (P. Vivier)
Spr PHP2470 S01 25044 Arranged (P. Vivier)

PHP 2507. Biostatistics and Applied Data Analysis I.
The objective of the year long, two-course sequence is for students to develop the knowledge, skills and perspectives necessary to analyze data in order to answer a public health question. The year long sequence will focus on statistical principles as well as the applied skills necessary to answer public health questions using data, including: data acquisition, data analysis, data interpretation and the presentation of results. Through lectures, labs and small group discussions, this fall semester course will focus on identifying public health data sets, refining research questions, univariate and bivariate analyses and presentation of initial results. Prerequisite: understanding of basic math concepts and terms; basic functional knowledge of Stata. Enrollment limited to 50 MPH, CTR, and BSSI students. Instructor permission required

Fall PHP2507 S01 15801 W 6:00-8:00PM(18) (A. Gjelvik)
Fall PHP2507 S01 15801 Th 1:00-2:20(18) (A. Gjelvik)

PHP 2508. BioStatistics and Data Analysis II.
Biostatistics and Applied Data Analysis II is the second course in a year-long, two-course sequence designed to develop the skills and knowledge to use data to answer public health questions. The courses are specifically for students in the Brown MPH program, and the training programs in Clinical and Translational Research. The sequence is completed in one academic year, not split across two years. The courses focus on statistical principles as well as the applied skills necessary to answer public health questions using data, including: acquisition, analysis, interpretation and presentation of results. Prerequisite: PHP 2507. Enrollment limited to 48. Instructor permission required

Spr PHP2508 S01 25536 W 6:00-8:00PM(18) (A. Gjelvik)
Spr PHP2508 S01 25536 Th 1:00-2:20(18) (A. Gjelvik)

PHP 2510. Principles of Biostatistics and Data Analysis.

Intensive first course in biostatistical methodology, focusing on problems arising in public health, life sciences, and biomedical disciplines. Summarizing and representing data: basic probability; fundamentals of inference; hypothesis testing; likelihood methods. Inference for means and proportions; linear regression and analysis of variance; basics of experimental design; nonparametrics; logistic regression. Open to advanced undergraduates with permission from the instructor

Fall PHP2510 S01 15802 TTh 9:00-10:20(08) (Z. Wu)

Applied multivariate statistics, presenting a unified treatment of modern regression models for discrete and continuous data. Topics include multiple linear and nonlinear regression for continuous response data,
analysis of variance and covariance, logistic regression, Poisson regression, and Cox regression. Prerequisite: APMA 1650 or PHP 2510. Open to advanced undergraduates with permission from the instructor

**PHP 2520. Statistical Inference I.**
First of two courses that provide a comprehensive introduction to the theory of modern statistical inference. PHP 2520 presents a survey of fundamental ideas and methods, including sufficiency, likelihood based inference, hypothesis testing, asymptotic theory, and Bayesian inference. Measure theory not required. Open to advanced undergraduates with permission from the instructor

Fall PHP2520  S01  15807  MW  9:00-10:00(02)  (X. Luo)

**PHP 2530. Bayesian Statistical Methods.**
Surveys the state of the art in Bayesian methods and their applications. Discussion of the fundamentals followed by more advanced topics including hierarchical models, Markov Chain Monte Carlo, and other methods for sampling from the posterior distribution, robustness, and sensitivity analysis, and approaches to model selection and diagnostics. Features nontrivial applications of Bayesian methods from diverse scientific fields, with emphasis on biomedical research. Prerequisites: APMA 1650, PHP 2510, PHP 2511, or equivalent. Open to advanced undergraduates with permission from the instructor

Fall PHP2530  S01  15808  TTh  2:30-3:50(11)  (R. Gutman)

**PHP 2540. Advanced Methods for Multivariate Analysis.**
Survey of modern statistical methods for analysis of multivariate and high-dimensional data. Topics include inference for multivariate normally distributed data, methods for data reduction, classification and clustering, multiple comparisons for high-dimensional data, analysis of multidimensional contingency tables, and functional data analysis. Applications to diverse areas of scientific research, such as genomics, biomarker evaluation, and neuroscience will be featured. Prerequisites: APMA 1650 and 1660; or PHP 2520. Open to advanced undergraduates with permission from the instructor

Spr PHP2540  S01  25203  MW  8:30-9:50(02)  (R. Gutman)

**PHP 2580. Statistical Inference II.**
This sequence of two courses provides a comprehensive introduction to the theory of modern inference. PHP 2580 covers such topics as non-parametric statistics, quasi-likelihood, resampling techniques, statistical learning, and methods for high-dimensional Bioinformatics data. Prerequisite: PHP 2520. Open to advanced undergraduates with permission from the instructor

Spr PHP2580  S01  25137  MW  10:00-11:20(03)  (C. Gatsonis)

**PHP 2601. Linear and Generalized Linear Models.**
Generalized linear models provide a unifying framework for regression. Important examples include linear regression, log-linear models, and logistic regression. GLMs for continuous, binary, ordinal, nominal, and count data. Topics include model parameterization, parametric and semiparametric estimation, and model diagnostics. Methods for incomplete data are introduced. Computing with modern software is emphasized. Prerequisites: APMA 1650 or PHP 2520. Open to advanced undergraduates with permission from the instructor

Fall PHP2601  S01  15809  TTh  1:00-2:20(10)  (E. Kim)
Fall PHP2601  S01  15809  Th  1:00-2:20(10)  (E. Kim)

**PHP 2602. Analysis of Lifetime Data.**
Comprehensive overview of methods for inference from censored event time data, with emphasis on nonparametric and semiparametric approaches. Topics include nonparametric hazard estimation, semiparametric proportional hazards models, frailty models, multiple event processes, with application to biomedical and public health data. Computational approaches using statistical software are emphasized. Prerequisites: PHP 2510 and 2511, or equivalent. Open to advanced undergraduates with permission from the instructor

Spr PHP2602  S01  25138  TTh  2:30-3:50(11)  (X. Luo)

**PHP 2603. Analysis of Longitudinal Data.**
Comprehensive coverage of methods for drawing inference from longitudinal observations. Theoretical and practical aspects of modeling, with emphasis on regression methods. Topics include: multilevel and marginal models; estimation methods; study design; handling dropout and nonresponse; methods for observational data (e.g. time-dependent confounding, endogeneity, selection bias). SAS and S-Plus software are used. Prerequisite: Statistical inference (APMA 1650-1660 at minimum), regression (PHP 2511), working knowledge of matrix algebra (e.g. MATH 0520). Open to advanced undergraduates with permission from the instructor

Spr PHP2603  S01  25209  TTh  1:00-2:20(10)  (E. Kim)

**PHP 2610. Causal Inference and Missing Data.**
Systematic overview of modern statistical methods for handling incomplete data and for drawing causal inferences from "broken experiments" and observational studies. Topics include modeling approaches, propensity score adjustment, instrumental variables, inverse weighting methods and sensitivity analysis. Case studies used throughout to illustrate ideas and concepts. Prerequisite: MATH 1610 or PHP 2511. Open to advanced undergraduates with permission from the instructor

Fall PHP2610  S01  15876  T  9:00-10:20(08)  (J. Hogan)
Fall PHP2610  S01  15876  Th  9:00-10:20(08)  (J. Hogan)

**PHP 2620. Statistical Methods in Bioinformatics, I.**
Introduction to statistical concepts and methods used in selected areas of bioinformatics. Organized in three modules, covering statistical methodology for: (a) analysis of microarray data, with emphasis on application in gene expression experiments, (b) proteomics studies, (c) analysis of biological sequences. Brief review and succinct discussion of biological subject matter will be provided for each area. Available software will be introduced. Intro level statistics (PHP 2507/2508 or PHP 2510/2511) recommended. Other students should contact instructor. Intro to software R and Bioconductor tools provided in lab. Open to advanced undergraduates with permission from the instructor

Spr PHP2620  S01  25141  TTh  10:30-11:50(09)  (Z. Wu)

**PHP 2950. Doctoral Seminar in Public Health.**
The purpose of this seminar is to facilitate discussions of current scientific literature in epidemiology, biostatistics, health services, and public health in general. The main goal is to expose students to current methodological issues and controversies in epidemiology, biostatistics, health services, and public health, in an effort to integrate knowledge across disciplines. This seminar is by instructor permission only and is only open to doctoral students in Epidemiology, Biostatistics and Health Services Research

Fall PHP2950  S01  15777  M  12:00-12:50(12)  (D. Savitz)
Spr PHP2950  S01  25119  M  12:00-12:50(05)  "To Be Arranged"

**PHP 2980. Graduate Independent Study and Thesis Research.**
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

**PHP 2985. MPH Independent Study for Thesis Preparation and Research.**
This optional half credit course may be taken up to two times during preparation for the MPH degree. It provides MPH students with self-directed thesis research and preparation time under the guidance of a thesis advisor. Prior to taking this course the student and advisor must reach agreement as to what constitutes satisfactory completion of the course (e.g., completion of a satisfactory literature review, attainment of specific thesis benchmarks, or completion of the thesis). Please check Banner for the correct section number and CRN to use when registering for this course

**PHP 2990. Thesis Preparation.**
No description available

**PHP XLIST. Courses of Interest to Concentrators in Community Health.**

**Program in Liberal Medical Education.**
**PLME 1000. PLME Senior Seminar in Scientific Medicine.**
This course is an interdisciplinary and integrative science course that will supplement the preparation of both PLME and pre-medical students for the study of medicine in the 21st century. The course will use a case-based approach to relevant and contemporary subjects in medicine and health care, such as: biological systems and their interactions; the mechanisms of intra-and intercellular communication; drug therapy optimization; and the humanistic aspects of patient care. The course
is intended for seniors interested in attending medical school but will preferentially enroll students in the PLME. Prerequisite: PLME competency in Biology, Chemistry (inorganic and organic), Physics, and introductory calculus. Enrollment limited to 40. S/N C

Fall  PLME1000  S01  16131  MW  8:30-9:50(02)  (J. Ip)

Chemistry

CHEM 0080B. Molecular Structures in Chemistry and Biology. This course will consist of a survey of historical developments and concepts of three dimensional structures of molecules. The course will conclude with a survey of the current state of the art of structure determination and 3D structure motifs for small molecules, nanomaterials and biological macromolecules. This freshman only seminar will be strictly limited to a maximum of 20 students. FYS

Fall  CHEM0080B S01 14974 MWF 9:00-9:50(02)  (P. Williard)

CHEM 0100. Introductory Chemistry. Explores stoichiometry, atomic and molecular structure, chemical bonding, solutions, gases, chemical reactions, equilibria, thermochemistry. Three hours of lecture, one conference per week, no laboratory section. S/N C

Fall  CHEM0100 S01 14008 MW 11:00-11:50(04)  (S. Russo-Rodriguez)

CHEM 0330. Equilibrium, Rate, and Structure. Explores the electronic structure of atoms and molecules, thermodynamics, solution equilibrium, electrochemistry, chemical kinetics, and reaction mechanisms. Three hours of lecture and five hours of prelaboratory and laboratory per week. Required background: CHEM 0100 or AP Chemistry 4 or CHEM Placement Test 8 or IBC Chemistry. Students MUST register for all four components of this course (the common meeting, lecture, lab and conference) during the SAME registration session. Banner will not allow a student to register for one component without registering for the other three at the same time. Further, if one component of the course is dropped, all four components will be dropped. This course is offered in both Fall and Spring semesters.

If you previously completed CHEM 0330 laboratory but received a grade of no credit in the course, please register for lab section 9 (spring 2013 only)

Fall  CHEM0330 M01 14044 Arranged  To Be Arranged
Fall  CHEM0330 S01 14036 MWF 10:00-10:50(03)  (R. Stratt)
Fall  CHEM0330 S02 14043 MWF 10:30-11:20(09)  (W. Bernskoetter)
Spr  CHEM0330 M01 23577 Arranged  To Be Arranged  (C. Bazemore-Walker)
Spr  CHEM0330 S01 23577 Arranged  To Be Arranged  (C. Bazemore-Walker)

CHEM 0350. Organic Chemistry. Sequel to CHEM 0330. Investigates the constitution and properties of the different classes of organic compounds, with considerable attention to reaction mechanisms. The laboratory work involves an introduction to microscale preparative and analytical techniques of organic chemistry and the preparation of representative organic compounds. Three hours of lecture and five hours of prelaboratory and laboratory. Prerequisite: CHEM 0330.

Students MUST register for a common meeting, a lecture section, a lab and a conference.

If you previously completed CHEM 0350 laboratory but received a grade of no credit in the course, please register for lab section 11

Spr  CHEM0350 M01 23587 Arranged  To Be Arranged  (A. Basu)
Spr  CHEM0350 S01 23582 MWF 9:00-9:50(01)  (A. Basu)
Spr  CHEM0350 S02 23586 TTh 9:00-10:20(01)  (S. Delaney)

CHEM 0360. Organic Chemistry. Sequel to CHEM 0350. Investigates the constitution and properties of organic compounds at a fundamental level with an introduction to physical organic, bioorganic, and synthetic organic chemistry. Laboratory work is concerned with the identification and characterization of organic compounds, including modern instrumental methods. Three hours of lecture and five hours of prelaboratory and laboratory. Prerequisite: CHEM 0350.

Students MUST register for a lecture section, a lab and a conference.

Fall  CHEM0360 M01 14097 Arranged  To Be Arranged
Fall  CHEM0360 S01 14095 MWF 9:00-9:50(01)  (C. Seto)
Fall  CHEM0360 S02 14096 TTh 9:00-10:20(01)  (D. Cane)

CHEM 0400. Biophysical and Bioinorganic Chemistry. Examines aspects of physical and inorganic chemistry relevant to biochemistry: thermodynamics of hydrophobic and hydrophilic interactions, electrically charged membranes, coordination chemistry, active and passive transport, enzyme kinetics and mechanisms, metal-based drugs, and physical methods. Three hours of lecture and five hours of laboratory. Prerequisite: CHEM 0360 and MATH 0110 or 0170. Prerequisite or corequisite: PHYS 0040 or 0060.

Students MUST register for a lecture section and a lab.

Spr  CHEM0400 S01 24361 MWF 11:00-11:50(04)  (J. Suggs)

CHEM 0500. Inorganic Chemistry. Examines the chemistry of main group and transition metal elements with treatment of covalent bonding and molecular structure along with the methods of studying inorganic compounds and reactions. Three hours of lecture and five hours of prelaboratory and laboratory attendance. Prerequisite: CHEM 0360.

Students MUST register for a lecture section and a lab.

Spr  CHEM0500 S01 24364 MWF 11:00-11:50(04)  (W. Bernskoetter)

CHEM 0970. Undergraduate Research. Prerequisite: permission of the staff. Permission should be requested before the end of the preceding semester. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

CHEM 0980. Undergraduate Research. See Undergraduate Research (CHEM 0970) for course description. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

CHEM 1060. Advanced Inorganic Chemistry. Covers the physical and chemical properties of transition metal compounds as well as current research topics in inorganic chemistry. Laboratory is designed for the practice of modern inorganic chemistry through the synthesis and spectroscopic characterization of air-sensitive transition metal compounds. Prerequisite: CHEM 0500

Fall  CHEM1060 S01 15004 MWF 9:00-9:50(02)  (E. Kim)

CHEM 1140. Physical Chemistry: Quantum Chemistry. An introduction to the quantum theory of chemical systems. Elements of quantum mechanics; electronic structure of atoms and molecules; study of molecular structure and behavior by spectroscopy; chemical bonding are explored. Prerequisites: CHEM 0330, MATH 0180 or equivalent, PHYS 0040 or 0060 or equivalent. Recommended but not required: MATH 0520 or equivalent

Fall  CHEM1140 S01 15010 MWF 10:00-10:50(03)  (L. Wang)

CHEM 1150. Physical Chemistry: Thermodynamics and Statistical Mechanics. Examines the question: Where does chemical equilibrium come from? Focuses on macroscopic perspectives on chemical systems and the molecular origins of macroscopic behavior along with elements of statistical mechanics, the laws of thermodynamics, and the relationships between the two. Prerequisite: CHEM 1140 or written permission of the instructor

Spr  CHEM1150 S01 24921 MWF 10:00-10:50(03)  (L. Wang)

CHEM 1160. Physical Chemistry Laboratory. An introduction to modern instrumentation and experimental techniques as applied to physical chemistry. Experiments will emphasize application of the ideas of spectroscopy, kinetics, statistical mechanics, and thermodynamics to systems of chemical and biochemical interest. Required course for concentrators in chemistry. One to two afternoons of laboratory per week. Prerequisites: CHEM 1140 or permission of the instructor

Spr  CHEM1160 S01 24922 MW 1:00-5:20(06)  (C. Rose-Petruck)

CHEM 1230. Chemical Biology. This course covers topics at the interface of chemistry and biology and, specifically, the use of chemical tools to probe biological systems. Using examples from the recent literature, we will discuss using the central methods of chemistry, namely the ability to design and synthesize...
compounds with a particular set of properties, to analyze biological problems. Specific topics include molecular recognition of DNA, artificial enzymes, small molecule sensors, and in vivo imaging of proteins, nucleic acids, and cell-surface carbohydrates. Prerequisites: CHEM 0350, CHEM 0360, and BIOL 0280 OR BIOL 1270.

If enrollment exceeds the limit, permission to enroll will be allotted in the order: 1) first year graduate students, 2) senior concentrators in Chemistry or Biochemistry 3) junior concentrators 4) other students. Students who have registered or have permission to enroll must attend the first three classes or risk losing their places to someone on the waiting list.

Fall CHEM1240 S01 15011 MW 8:30-9:50(02) (S. Delaney)

CHEM 1240. Biochemistry. Examines the chemical, mechanistic, and structural basis for enzymatic catalysis. Uses examples from the recent literature to examine how the experimental and conceptual tools of chemical synthesis, isotopic labeling, stereochemistry, enzymology, kinetics, and protein structure can be brought to bear to unravel the chemical and physical principles underlying the enormous catalytic acceleration and exquisite structural specificity of enzyme-catalyzed reactions. Prerequisites: Strong background in organic chemistry (CHEM 0350-0360, A or B performance preferable) plus at least one semester of Biochemistry (BIOL 0280, BIOL 1270). Enrollment limited to: 25 students, written permission required.

If enrollments exceed the limit of 25 students, permission to enroll for students who meet the course prerequisites will be allotted in the order: a) first year Chemistry graduate students, b) undergraduate senior concentrators in Chemistry, Biochemistry or Chemical Biology, c) junior concentrators in Chemistry, Biochemistry or Chemical Biology, d) other students. Students who have permission to enroll must attend the first three classes or risk losing their places to someone on the Course waiting list.

Spr CHEM1240 S01 24923 TTh 9:00-10:20(08) (D. Cane)

CHEM 1450. Advanced Organic Chemistry. Lectures cover topics of current interest in organic reaction mechanisms, synthesis, and structure determination. Laboratory emphasizes spectroscopic and separation techniques and modern synthetic methods. Prerequisite: CHEM 0360.

Students MUST register for a lecture section and a lab.

Spr CHEM1450 S01 24924 MW 8:30-9:50(02) (C. Seto)

CHEM 1560D. Chemistry and Biology of Naturally Occurring Antibiotics. Small molecules produced by organisms for chemical defense have long been exploited in medicine, biotechnology, and biological research. 1560D will examine the origins, uses, modes of action, and preparations of some of the most important and useful of these "antibiotic" molecules. Given the inter-disciplinary nature of this topic, this course is open to students with backgrounds in the biological and/or physical sciences. Familiarity with concepts of organic chemistry and biochemistry will be assumed.

Fall CHEM1560D S01 15780 TTh 10:30-11:50(09) (J. Sello)

CHEM 1560E. Biological Mass Spectrometry. This seminar course will survey the instrumentation, methods, and applications of modern biological mass spectrometry. Through lecture and interactive discussions, we will explore the fundamentals of mass spectrometry. We will then proceed to cover a series of topics relevant to protein and peptide analysis. The seminar will conclude with an exploration of recent developments in instrumentation or applications of particular interest to the participants. Recommended pre-requisites: CHEM 0360, BIOL 0280, PHYS 0400. Enrollment limited to 20.

Fall CHEM1560ES01 15781 MW 11:00-11:50(04) (C. Bazemore-Walker)

CHEM 1560G. Nuclear Magnetic Resonance. These special topics courses cover the basics of modern NMR spectroscopy. Topics to be included are as follows: modern Fourier transform methodology, modern NMR instrumentation, and a comprehensive discussion of one and two dimensional experiments that are routinely performed. Topics such as coherence transfer and pulsed field gradients will also be included. Experimental methods covered in detail include COSY, TOCSY, HSQC, HMB, NOE, ROSEY, EXSY and DOSY methodology. This course will not focus on structure determination or spectral interpretation but rather on experimental methodology.

Spr CHEM1560G S01 24926 MWF 11:00-11:50(04) (P. Williard)

CHEM 1620C. Topics in Modern Physical Chemistry. No description available.

CHEM 1660. Instrumental Analysis with Environmental Applications. This course covers the principles and practical applications of important analytical chemistry tools used to study environmental problems, including discussions of method selection and statistical treatment of data. Students will strategize and implement a study of a field site. Includes lab sessions with hands-on experience of instrumental analysis using atomic and molecular spectroscopic techniques, separations by gas and liquid chromatography, and electrochemical methods. Prerequisite: CHEM 0350 or GEOL 1370. Enrollment limited to 20. Instructor permission required.

Fall CHEM1660 S01 25235 TTh 10:30-11:50(09) (J. Suggs)

CHEM 1700. Nanoscale Materials: Synthesis and Applications. Focuses on synthesis, properties, and applications of nanoscale materials. It begins with the introduction to size-dependent properties and to general characterization methods of nanomaterials. It then outlines the synthesis, surface chemistry and self-assembly of nanomaterials. It further reviews catalytic, optical and magnetic properties of nanomaterials. Finally, the course highlights the applications of nanomaterials in information storage, energy conversion, and biomedicine.

Fall CHEM1700 S01 15016 MWF 11:00-11:50(04) (S. Sun)

CHEM 2010. Advanced Thermodynamics. Fundamental principles of macroscopic equilibrium thermodynamics. The three laws of thermodynamics, the thermodynamic potentials, temperature scales, heat engines and refrigerators, entropy, kinetic theory, and transport phenomena. Applications to solids, fluids, and magnetic systems; Gibbs relations, first and second order phase traditions, thermal radiation, gas expansions.

Fall CHEM2010 S01 15017 TTh 10:30-11:50(09) (G. Diebold)

CHEM 2020. Statistical Mechanics. Introduction to modern equilibrium statistical mechanics, including the classical and quantum descriptions of ideal gases, the molecular basis of thermodynamics, the concepts of ensembles and fluctuations, and the implications of quantum mechanical indistinguishability. Applications include chemical and phase equilibria, the transition-state theory of chemical reaction rates, and the theory of liquids.

Spr CHEM2020 S01 24927 MWF 9:00-9:50(02) (R. Stratt)

CHEM 2310. Advanced Inorganic Chemistry. Comprehensive survey of topics in synthetic and mechanistic organometallic chemistry.

Fall CHEM2310 S01 15019 TTh 10:30-11:50(09) (J. Suggs)

CHEM 2320. Physical Inorganic Chemistry. The bonding and structures of inorganic compounds, including transition metal containing compounds and organometallics, and their spectroscopic properties are covered along with the group theoretical, quantum chemical, and physical methods employed. Prerequisites: CHEM 0500 and 1140 or equivalents or written permission. Recommended for seniors and first-year graduate students.

Spr CHEM2320 S01 25124 TTh 10:30-11:50(09) (S. Sun)

CHEM 2410. Physical Organic Chemistry. Detailed examination of organic reaction mechanisms, reactive intermediates, and the methods employed for their characterization (e.g., kinetics, free energy relationships, isotope effects, molecular orbital theory, spectroscopy, and product distributions). Topics may include concerted, free radical, elimination, and photochemical reactions, and the chemistry of radicals, carbocations, carbanions, and carbenes. Prerequisites: CHEM 0500, CHEM 1140.

Fall CHEM2410 S01 15020 MWF 10:00-10:50(03) (A. Basu)

CHEM 2420. Organic Reactions. Study of organic reactions and reaction mechanisms. Discussion and analysis of organic transformations. Topics can include arrow pushing strategies and synthetic methods.

Fall CHEM2420 S01 15022 TTh 9:00-10:20(08) (P. Williard)
For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
India’s unparalleled literary richness by reading selections of the best poetry, drama, and narrative literature of Indian civilization from any of its many languages (Sanskrit, Tamil, Hindi, Bengali, etc., and English), ancient and modern. DVPS

Fall CLAS1160 S01 15538 TTh 9:00-10:20(08) (D. Buchta)

CLAS 1310. Roman History I: The Rise and Fall of an Imperial Republic.
The social and political history of Ancient Rome from its origins to the death of Augustus in 14 CE. Focuses on the social conflicts of the early Republic; the conquest of the Mediterranean and its repercussions; the breakdown of the Republic and the establishment of monarchy. Readings emphasize ancient sources in translation. WRIT

Fall CLAS1310 S01 15539 WF 10:00-10:50(03) (L. Mignone)
Fall CLAS1310 S01 15539 MWF 10:00-10:50(03) (L. Mignone)

CLAS 1320. Roman History II: The Roman Empire and Its Impact.
The social and political history of the Roman Empire (14-565 CE). Focuses on expansion, administration, and Romanization of the empire; crisis of the 3rd century; militarization of society and monarchy; the struggle between paganism and Christianity; the end of the Empire in the West. Special attention given to the role of women, slaves, Law, and historiography. Ancient sources in translation

Spr CLAS1320 S01 24873 MWF 11:00-11:50(04) (J. Bodel)

CLAS 1410. Roman Religion.
Explores the religions of Rome, from the animism of King Numa to the triumph of Christianity. Topics include: concepts of religion and the sacred; sacred law; ritual space and the function of ritual; festivals; divination; magistrates and priests; the imperial cult; death and the afterlife; mystery cults; astrology and magic

Fall CLAS1410 S01 16332 TTh 2:30-3:50(11) (J. Bodel)

CLAS 1750D. Philosophy of Socrates.
In this class we will read and discuss various ancient portraits of Socrates (in Aristophanes’ Clouds, Plato's Apology and Symposium, and Xenophon's Apology) and several Platonic dialogues representing Socrates in action discussing moral questions, including the Crito, Laches, Charmides, Lesser Hippias, Protagoras, and Gorgias. We will focus on questions about the historical Socrates (as distinct from the portraits), his avowals of ignorance, irony, methods of argument, and interest in definition, as well as the moral questions explored in the dialogues. All readings will be in English translation. Enrollment limited to 20

Fall CLAS1750D S01 15696 M 3:00-5:20(13) (M. Gill)

CLAS 1750H. Heroes and Heroism in Graeco - Roman Antiquity and Beyond.
Examines the concept of hero, an ancient Greek word, which had a wide variety of meanings and was employed to designate a series of diverse characters of myth. We will trace the evolution of this idea through a detailed analysis of its uses in Greek and Roman texts, and also contrast its ancient sense with present day conceptions of the hero and heroism. All readings will be in English. The course is open to all undergraduates, but preference will be given to juniors and seniors. Enrollment limited to 25. WRIT

Spr CLAS1750H S01 24882 MWF 1:00-1:50(06) (P. Nieto Hernandez)

CLAS 1750L. Erotic Desire in the Premodern Mediterranean.
Erotic desire may be a universal human phenomenon. How we explain, depict, express, or experience desire is, however, not a universal, uniform matter. This premodern Mediterranean (from roughly the fifth century BCE to the fifteenth century CE) gives us a variety of forms of sexual experience and expression. We will study the history of these forms through texts, images, and objects: from Platonic love or eros to Roman tales of romance, from Judeo-Christian mysticism to Islamic literature, from sexual diets to erotic amulets. Enrollment limited to 25

Spr CLAS1750L S01 24898 TTh 10:30-11:50(09) (E. Papaioannou)

CLAS 1750M. Stage from Page: Ancient Greek Drama in Performance.
This seminar will offer students an interdisciplinary approach to ancient drama, combining the study of classics and theater with an interrogation of performance theory and historical problems of interpretation. Beginning with a crash course on the development of Greek poetry and the practicalities of the Athenian stage, we will cover Athenian tragic production from the earliest surviving play of Aeschylus to the posthumous productions of works by Sophocles and Euripides. We will also address theoretical questions surrounding Athenian drama: problems of dramatic (re)interpretation (even in Antiquity), the concepts of re-performance and rewriting, and the importance of the festival context. Enrollment limited to 20

Spr CLAS1750MS S01 25338 TTh 1:00-2:20(10) (J. Hanink)

CLAS 1930B. Dying God.
The figure of the dying god (like Adonis, Osiris, or Attis), embodying both beauty and tragedy, has exerted a fascination from ancient times to the present day. His worship was sometimes central to the community, sometimes marginal, yet compelling in its "outsider" status. His myths invited meditations on love and death in various modes from comedy to epic. This course, through the great mythological texts of Greece and Rome as well as modern literature and art, will explore the figure in all its variety, along with Christian adaptations and recent interpretations. There will be writing assignments.

Fall CLAS1930B S01 15514 TTh 2:30-3:50(11) (J. Reed)

CLAS 1930C. Parasites and Hypocrites.
The course is a study of the many forms of toadying, groveling, feigning friendship, flattery, ass-kissing, and so on, that were such a large source of concern — and comedy — in antiquity. The anxieties over hypocrisy in a democracy and parasites in client-patron systems will be explored historically, in literary representations, and in their social, political, and economic contexts. Authors to be read include Aristophanes, Plutarch, Lucian, Plauto, Horace, and Petronius

Spr CLAS1930C S01 25338 TTh 6:30-7:50(12) (K. Haynes)

CLAS 1970. Special Topics.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Section numbers vary by instructor. Please check banner for the correct section number and CRN to use when registering for this course

Introduction to standard research methods and tools in major subdisciplines of classical philology and ancient history. Required of entering graduate students. Survey of various subdisciplines in order to become familiar with field and scholarly principles

Fall CLAS2000 S01 15532 TTh 9:00-10:20(08) (P. Nieto Hernandez)

CLAS 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

CLAS 2980. Reading and Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor permission required

CLAS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

CLAS XLIST. Courses of Interest to Classics Concentrators.
Fall 2012

The following courses may be taken for concentration credit. Please see the sponsoring department for the time and location of each course.

Spring 2013

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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<th>Time</th>
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<td>MWF</td>
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**Course Descriptions**

**GREK 0110. Introduction to Ancient Greek.** Intensive, one-semester introduction to Greek. No previous knowledge of Greek is required.

**GREK 0200. Essentials of the Greek Language.** Second half of a two-semester approach to ancient Greek with special emphasis on developing facility in rapid reading of Greek literature. Selections from Attic Greek authors. No previous knowledge of Greek is required.

**GREK 0300. Introduction to Greek Literature.** Introduction to Greek literature through intensive reading. Prerequisite: GREK 0200, GREK 0110, or the equivalent. We will work on grammatical skills while reading extensively in the *Histories* of Herodotus, who is not only the "father of history" but also a great (and delightful) artist in prose.

**GREK 0310. Grammar Review and Composition.** Half-credit course with attention to student’s individual needs.

**GREK 0400. Introduction to Greek Literature.** Prerequisite: GREK 0300 (or the equivalent). Review of grammar of the Attic dialect through rapid reading of texts by Lysias, Plato, or Xenophon. Emphasis on syntax and style.

**GREK 1050C. Sophocles.** An introduction to the study of Athenian tragedy. Thorough translation of one drama, with attention to literary analysis. Rapid survey of other Sophoclean plays.

**GREK 1110E. Greek Satyr Play.** How are we to understand the dramatic genre of satyr play? Was satyr play more like tragedy, more like comedy, or entirely its own form? In this course we will read the only surviving satyr play (*Euripides’s “Cyclops”), substantial fragments of lost plays (including Socrates’ “Trackers”), as well as Euripides’ *Alcestis*, a play that seemed to combine elements of both the tragic and satyric genres. All primary texts will be read in the original Ancient Greek; those readings will also be supplemented by readings in modern scholarship. Prerequisite: GREK 0400 or equivalent.

**GREK 1110I. Selections from Greek Authors: Thucydides.** No description available.

**GREK 1110N. Menander.** Thanks to a series of remarkable discoveries over the last century, we can now read several comedies by Menander. In this course, we shall investigate the nature of New Comedy, its typical plot structures and characters, the conditions of its performance, and its relation to the Hellenistic world in which it was composed.

**GREK 1110X. Aristotle’s Politics.** Aristotle’s Politics is a landmark in the history of political thought: the first systematic study of political life. Thinkers from Aquinas to Agamben and Foucault have taken the Politics as the foundation of their own political theories. In this course, we will read Book 1 of the Politics in its entirety, as well as selections from Books 3, 5, 7 and 8. We will address stylistic, philosophical and political questions raised by the text, as well as reflecting on larger interpretive questions.

**GREK 1110Z. Greek Texts in the Postclassical Tradition.** A treasure of unedited or insufficiently edited as well as untranslated or little studied Greek texts exists in the postclassical tradition (especially from the Roman period onward). The course will introduce graduate and qualified undergraduate students into this large body of later Greek literature as well as provide training in the study of manuscripts and the preparation of critical editions, translations, and commentaries. Participation in a joint publication project is possible.

**GREK 1150. Greek Prose Composition.** Survey of Greek grammar and an opportunity to reflect on problems of translation. Main goals: to improve the students’ command of prose syntax (both in reading and writing), and to develop a keen sensitivity towards issues of translation. A variety of texts written in Attic prose are read and inscribed in class. Both are expected to write two to three compositions a week in good Attic prose. Advanced knowledge of ancient Greek is a prerequisite for this course.

**GREK 1810. Early Greek Literature.** Surveys early Greek literature. Works studied include the *Iliad, Odyssey*, the Hesiodic poems, and archaic lyric and elegiac poetry. Emphasis on literary interpretation, the interpretive problems inherent in the study of archaic poetry, and the poetics of oral poetry. Extensive readings in the original.

**GREK 1910. Special Topics.** Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**GREK 1990. Conference: Especially for Honors Students.** Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**GREK 2000E. Greek Epigraphy: Literary, Memory, and Recordkeeping.** This course examines broadly the inter-related concepts of literacy, orality, and memory and more specifically considers how the keeping of records, especially inscribed texts, both reflects and aids in our construction of those very same concepts. Students will work in epigraphical corpora of different cities, of Athens and elsewhere. Topics include: the symbiotic relationship of literacy and orality; the epigraphic habit and its relationship to democracy and oligarchy in different Greek cities; the way documents and the monuments on which they are inscribed memorialize the past; the impact of writing on social institutions, the emergence and function of archives.

**GREK 2020C. Pindar.** No description available.

**GREK 2110J. Greek Philology: Edition, Translation, Commentary.** A seminar in the study of Greek manuscripts, the transmission history of texts, text criticism, and the preparation of critical editions, accompanied by translation and commentary. The course provides a unique opportunity for students (both graduates and qualified undergraduates) to conduct individual publication projects and participate in collaborative editorial and translation work. 4 semesters of Greek required.

**GREK 2970. Preliminary Exam Preparation.** For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.

**GREK 2980. Reading and Research.** Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor permission required.

**GREK 2990. Thesis Preparation.** For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Latin

LATN 0100. Essentials of the Latin Language.
An intensive two-semester approach to Latin with special emphasis on developing facility in the rapid reading of Latin literature. No previous knowledge of Latin is required.
Fall LATN0100 S01 15542 TTh 12:00-12:50(02) (A. LaFrance)
Fall LATN0100 S01 15542 MWF 9:00-9:50(02) (A. LaFrance)

LATN 0110. Introduction to Latin.
Intensive, one-semester introduction to Latin. No previous knowledge of Latin is required.
Spr LATN0110 S01 24890 TTh 12:00-12:50(04) ‘To Be Arranged’
Spr LATN0110 S01 24890 MWF 11:00-11:50(04) ‘To Be Arranged’

LATN 0200. Essentials of the Latin Language.
Second course in an intensive two-semester approach to Latin. Special emphasis on developing facility in the rapid reading of Latin literature. No previous knowledge of Latin is required.
Spr LATN0200 S01 24891 TTh 12:00-12:50(05) ‘To Be Arranged’
Spr LATN0200 S01 24891 MWF 12:00-12:50(05) ‘To Be Arranged’

LATN 0300. Introduction to Latin Literature.
Introduction to Latin literature through intensive reading of major authors in prose and poetry with careful attention to grammar and style. Prerequisite: LATN 0100, 0200 or 0110 (or equivalent)
Fall LATN0300 S01 15544 MWF 1:00-1:50(06) (S. DiGiulio)

LATN 0310. Grammar Review and Composition.
Half-credit course with attention to student’s individual needs.
Fall LATN0310 S01 15545 T 2:30-3:50(11) (T. Mulder)

LATN 0400. Introduction to Latin Literature.
Introduction to Latin literature through intensive reading of major authors in prose and poetry with careful attention to grammar and style. Prerequisite: LATN 0100, 0200 or 0110 (or equivalent)
Spr LATN0400 S01 25441 MWF 10:00-10:50(03) ‘To Be Arranged’

LATN 1020C. Cicero’s Republic.
As one of the only texts that articulates a “Roman” political philosophy, Cicero’s De Re Publica is indispensable for students with an interest in Roman history or classical political thought. In this class, we will address the text from both these perspectives; but we will also read it as a work of literature that remakes the genre conventions of the Platonic dialogue for a Roman readership. We will also address the complex relationship between the text of De Re Publica and the troubled times in which it was written.
Spr LATN1020C S01 25968 MWF 10:00-10:50(03) (M. Devecka)

LATN 1060E. Livy.
Close readings of Livy’s history of Rome, From the Foundation of the City. As we read selections from Books 1, 5, and 21, we will explore several historiographical aspects of Livy’s text. We will consider both the historical tradition Livy was adapting and the influence and intrusion of the Augustan regime upon Livy’s particular construction of the past. We will pay special attention to the roles played by myth, legend, and history. We will also discuss the text as literature and examine how the historian structures and crafts his work into individual books, sets of books, and a coherent multivolume whole.
Fall LATN1060E S01 15512 MWF 9:00-9:50(02) (L. Mignone)

LATN 1110A. Apuleius.
No description available.
Spr LATN1110A S01 25584 MWF 2:00-2:50(07) (J. Bodel)

LATN 1110F. Fortunatus.
Wide reading in the occasional poetry of the most prolific writer of the early Middle Ages, attending to diction, meter, imagery, allusion, and paying special attention to the (homo- and hetero-) erotic pieces written to the poet’s friends.
Fall LATN1110F S01 15523 MWF 1:00-1:50(06) (J. Pucci)

LATN 1110L. Medieval Latin Lyric.
Close reading of a representative sampling of the personal poetry of the Latin Middle Ages, paying attention to what constitutes the lyric mode in the fourth through the twelfth centuries, developments in metrics, the effects of Christianity on vision and voice, the pressures of vernacular traditions, lyric rhetoric.
Fall MGRK1000 S01 15519 MTWTh 12:00-12:50(12) (E. Amanatidou)

Modern Greek

MGRK 0100. Introduction to Modern Greek.
Designed for students with little or no prior knowledge of Modern Greek. The aim is to introduce students to basic linguistic structures and develop the ability to comprehend and produce text, as well as to speak and understand speech, in a variety of contexts and registers. The course objectives are to enable students to perform a range of tasks, master a minimum core vocabulary and acquire knowledge and understanding of various forms of Greek culture.
Fall MGRK0100 S01 15519 MTWTh 12:00-12:50(12) (E. Amanatidou)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
MGRK 0200. Introduction to Modern Greek.
A continuation of MGRK 0100. New students may place into it, after special arrangement with the instructor. The course continues on an integrative skills approach and aims to develop language skills, within a framework of specific topics and functions. The course objectives are to enable students to perform a range of tasks, master a minimum core vocabulary and acquire knowledge and understanding of various forms of Greek culture.
Spr MGRK0200 S01 24875 MTWTh 12:00-12:50(05) (E. Amanatidou)

MGRK 0300. Intermediate Modern Greek.
Develops linguistic and cultural competence and may be taken by anyone who has completed MGRK 0200 or after consultation with the instructor and/or a placement exam. It focuses on further development of the four language skills as well as knowledge and understanding of various aspects of Greek society. It employs a variety of materials, including film, digital stories, internet based sources, music, art, and literature.
Fall MGRK0300 S01 15546 Arranged (E. Amanatidou)

MGRK 0400. Intermediate Modern Greek.
A continuation of MGRK 0300. Students may place into it, after special arrangement with the instructor. It aims to enhance language skills within a variety of registers and themes; enable the students to master, use and understand effectively essential linguistic structures; examine a variety of expressive forms within an authentic cultural context.
Spr MGRK0400 S01 25915 Arranged (E. Amanatidou)

MGRK 0500. Advanced Modern Greek.
May be taken by students who have completed the previous sequences or by anyone who places successfully into the course. The course places emphasis on the improvement of writing and oral skills, via presentations, collaborative projects, conversations and assignments based on topics and texts, drawn from a variety of sources and cultural forms of expression.
Fall MGRK0500 S01 15547 TTh 2:30-3:50(11) (E. Amanatidou)

MGRK 0600. Advanced Modern Greek.
A continuation of MGRK 0500. Students who have not taken the previous sequence may take a placement test, after consultation with the instructor. The course aims to promote range, accuracy and fluency and enable students to develop ease and spontaneity with the language. Authentic materials drawn from a range of sources inform the content of the course, and include films, literature, media, testimonies, music and internet based sources. The development of transcultural competence will be an essential component of the course.
Spr MGRK0600 S01 25916 Arranged (E. Amanatidou)

MGRK 1910. Special Topics in Modern Greek.
No description available

Sanskrit

SANS 0100. Elementary Sanskrit I.
This course introduces Sanskrit to students who have no prior knowledge of any language other than English. Students quickly learn to read the Devanāgarī script and study the basics of the sound-system of Sanskrit. The course rapidly surveys the basics of Sanskrit grammar while using adaptations of classical Indian myths and stories as reading exercises.
Fall SANS0100 S01 15521 TTh 12:00-12:50(12) (D. Buchta)
Fall SANS0100 S01 15521 MWF 12:00-12:50(12) (D. Buchta)

SANS 0200. Elementary Sanskrit II.
This course continues the survey of grammar and the reading exercises of SANS 100. The second half of this course reads selected passages of the Bhagavad Gītā and the beginning of the classic story of Nala and Damayantī from the Mahābhārata. Prerequisite: SANS 0100.
Spr SANS0200 S01 24877 TTh 12:00-12:50(05) (D. Buchta)
Spr SANS0200 S01 24877 MWF 12:00-12:50(05) (D. Buchta)

SANS 0300. Sanskrit Epic Narrative.
Consolidates and extends the knowledge of Sanskrit grammar introduced in first year Sanskrit; acquaints students first-hand with basic themes of ancient Indian culture, and cultivates the reading and interpretive skills necessary to read epic and closely related Sanskrit narrative with comprehension and increased fluency. Prerequisite: SANS 0200.
Fall SANS0300 S01 15527 MWF 2:00-2:50(07) (D. Buchta)

SANS 0400. Classical Sanskrit Story Literature.
Introduces students to the more challenging Sanskrit of classical story literature and continues to extend the knowledge of Sanskrit grammar introduced in first year Sanskrit and developed in SANS 0300, as well as present basic Indian cultural themes. Prerequisite: SANS 0300.
Spr SANS0400 S01 24871 MWF 9:00-9:50(02) (D. Buchta)

SANS 1100. Vedic Sanskrit.
Introduction to reading the Rig Veda and later Vedic literature, with particular attention to the grammar of Vedic Sanskrit.
Fall SANS1100 S01 15515 TTh 2:30-3:50(11) (J. Fitzgerald)

SANS 1400. The Sanskrit Grammatical Tradition.
Introduction to the Sanskrit tradition of vyākaraṇa (grammatical derivation and analysis) through reading Panini’s Astadhyayi and commentaries upon it.
Spr SANS1400 S01 24881 TTh 2:30-3:50(11) (D. Buchta)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor’s permission required.

SANS 2110. Brahman, Kastra and Dharma in Early Post-Vedic Literature.
This seminar will read the old Sanskrit Epics and the texts surrounding them (the Asokan Edicts, the Dharmasūtras and Mānava Dharmaśāstra, the Yuga Purāṇa and early Purānic historical records, etc.), examining them to locate the symbolic forms used in ancient India to define power and action. Instructor permission required.
Fall SANS2110 S01 15530 W 3:00-5:20(14) (J. Fitzgerald)

SANS 2970. Sanskrit Preliminary Exam Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.

Cognitive, Linguistic and Psychological Sciences

Cognitive, Linguistic and Psychological Sciences

CLPS 0010. Elementary Psychology: An Introduction to Mind and Behavior (formerly PSYC 0010).
A survey covering the roles of inherited and environmental determinants of human behavior. Topics include sensation, perception, learning, memory, motivation, emotion, neural processes, language, social development, personality assessment, obedience, interpersonal attraction, and the diagnosis, origins, and treatment of mental illness. Laboratory sections illustrate methodologies used to study these issues. Topic selection varies with instructor.
Spr CLPS0010 S01 25405 MWF 12:00-12:50(05) (E. Martino)

Cognitive science is the study of the mind from an interdisciplinary perspective. It focuses on such questions as how do we process information to recognize objects and faces, to know that a cup is not a bowl, to remember and learn, and to speak and understand? How can we study the brain inform us about the mind? This course will examine the above questions and discuss major themes in cognitive science including nature-nurture, categories and representations, and the nature of computations. WRIT
Fall CLPS0020 S01 15204 MWF 12:00-12:50(12) (D. Sobel)

CLPS 0030. Introduction to Linguistic Theory (formerly COGS 0410).
The ability to speak and understand a language involves having mastered (quite unconsciously) an intricate and highly structured rule-governed system. Linguists seek to model that rule system. This course introduces the principles underlying phonology (the principles which govern how sounds are put together), syntax (the rule system governing sentence structure), and semantics (the system which relates sentences to meanings).

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
CLPS 0400. Brain Damage and the Mind (formerly PSYC 0470)

Brain damage in human subjects can produce dramatic and highly selective impairments in cognitive functioning. This course provides an overview of the major neuropsychological disorders of perception, language, memory, thought, and action. Emphasizes the development of human information processing models for understanding the cognitive deficits observed in brain-damaged patients and the implications of neuropsychological findings for models of normal cognition. Course work will include hands-on laboratory methods and formal theories of brain damage and cognitive functioning.

CLPS 0510. Perception, Illusion, and the Visual Arts (formerly COGS/PSYC 0440)

How do the mind and the brain take physical energy such as light or sound and convert it into our perception of the world? This course examines the behavioral and biological bases of human and animal perceptual systems, including vision, audition, smell, taste, and touch. Particular emphasis is placed on high-level perception and how it relates to other cognitive systems.

CLPS 0610. Children’s Thinking: The Nature of Cognitive Development (formerly COGS 0630)

An interdisciplinary approach to the development of children’s thinking and cognitive development from infancy to middle childhood. Considers a range of topics including memory, reasoning, categorization, perception, and children’s understanding of concepts such as space, time, number, mind, and language.
biol. Major theories of cognitive development are described and evaluated in light of the available psychological data. L.I.E.

Fall CLPS0610 S01 15098 MWF 10:00-10:50(03) (D. Sobel)

**CLPS 0700. Social Psychology (formerly PSYC 0210).**

Examines the theories, findings, and methods of social psychology. Topics include: social cognition (person perception, attitudes), social influence (cultural sources of attitudes, conformity), and social relations (aggression, altruism, prejudice). Students become better informed consumers of empirical research and acquire a new framework for interpreting social behavior. Applications to historical and current events

Spr CLPS0700 S01 24529 TTh 1:00-2:20(10) (F. Cushman)

**CLPS 0701. Personality (formerly PSYC 0300).**

A survey of the major perspectives (psychoanalytic, behavioral, humanistic, etc.) within theories of personality. Particular emphasis is placed on the integration of research and theory

Spr CLPS0701 S01 24530 TTh 9:00-10:20(08) (B. Hayden)

**CLPS 0800. Language and the Mind (formerly COGS 0450).**

Explores fundamental issues in psycholinguistics: what is the nature of language; what are its biological underpinnings; how does the mind process speech, recognize words, parse sentences, comprehend discourse; what do effects of brain injuries on language reveal about the organization of language in the mind? Syntheses of results from multiple modes of analysis – linguistic, psychological, computational, and neurophysiological – are emphasized

Spr CLPS0800 S01 24531 TTh 10:30-11:50(09) (J. Morgan)

**CLPS 0900. Quantitative Methods in Psychology (formerly COGS/ PSYC 0900).**

A survey of statistical methods used in the behavioral sciences. Topics include graphical data description, probability theory, confidence intervals, principles of hypothesis testing, analysis of variance, correlation, and regression, and techniques for categorical data. Emphasizes application of statistical methods to empirical data

Fall CLPS0900 S01 15210 MWF 11:00-11:50(04) (K. Spoehr)

Spr CLPS0900 S01 24532 MWF 10:00-10:50(03) (J. Wright)

**CLPS 1130. Psychology of Timing (formerly PSYC 1790).**

Topics include temporal perception, memory, and preferences; cognitive, biological, and quantitative theories of timing; biological rhythms; pharmacological influences on time perception and timed performance; altered timing in abnormal states; and timing in sports and music.

Enrollment limited to 20

Spr CLPS1130 S01 25596 MWF 1:00-1:50(06) (R. Church)

**CLPS 1191. Animal Behavior Laboratory (formerly PSYC 1450).**

This course is designed for students with a serious interest in animal behavior research. Topics include methods in lab and field research, enrichment programs for captive species and conditioning procedures for managing zoo and shelter animals. Prerequisites: CLPS 0900 (COGS/PSYC 0900). Enrollment limited to 12; not open to first-year students

Fall CLPS1191 S01 15211 W 1:00-4:00(06) (R. Cowlin)

**CLPS 1192. Experimental Analysis of Animal Behavior and Cognition (formerly PSYC 1280).**

A laboratory course on the prediction, control, and explanation of the behavior of animals in simple environments. Prerequisite: CLPS 0900 (PSYC/COGS 0900)

Fall CLPS1192 S01 16389 TTh 10:30-11:50(09) (R. Church)

**CLPS 1193. Laboratory in Genes and Behavior (formerly PSYC 1400).**

Laboratory course in behavioral neuroscience designed to provide research experience in assessing effects of genetic elements on behavior. Students examine the behavioral phenotype of a mouse model of human disease, and are tested on behavioral batteries to assess, for example, cognitive, affective, and sensorimotor behavior. Recent classes tested models of early life stress, Fragile X Mental Retardation, and Alzheimer’s Disease. Students will test the mice, analyze the data, and prepare a manuscript suitable for publication in a scientific journal.

Prerequisites: CLPS 0410 or NEUR 0010, and CLPS 0900, or instructor permission. Enrollment limited to 16, not open to first-year students. WRIT

Spr CLPS1193 S01 24419 F 9:00-11:00(02) (R. Bunzel)

**CLPS 1291. Computational Cognitive Science (formerly COGS 1280).**

A detailed introduction to computational modeling of cognition, summarizing traditional approaches and providing experience with state-of-the-art methods. Covers pattern recognition approaches, shallow and hierarchical networks including Bayesian probabilistic models, and illustrates how they have been applied in several key areas in cognitive science, including visual perception and attention, object and face recognition, learning and memory as well as decision-making and reasoning. Focuses on modeling simple laboratory tasks from cognitive psychology. Connections to contemporary research in computer science will be emphasized highlighting how computational models may motivate the development of new hypothesis for experiment design in cognitive psychology

Spr CLPS1291 S01 24533 TTh 2:30-3:50(11) (T. Spero)

**CLPS 1310. Introduction to Phonological Theory (formerly COGS 1210).**

Examines some of the classic and current issues regarding sound structure in the world’s languages and introduces the theoretical tools needed to solve them. After a brief introduction to articulatory phonetics and phonemic analysis, it focuses on phonological analysis of different languages, discussing segmental phonology, syllable structure, autosegmental representations, stress systems, and prosodic word structure. Implications for language learning and language change are discussed. Prerequisite: CLPS 0300 (COGS 0410)

Spr CLPS1310 S01 25620 MWF 2:00-2:50(07) "To Be Arranged"

**CLPS 1330. Introduction to Syntax (formerly COGS 1310).**

An in-depth investigation of natural language syntax, an intricate yet highly organized human cognitive system. Focuses primarily on the syntax of English as a means of illustrating the structured nature of a grammatical system, but the broader question at issue is the nature of the rule system in natural language syntax. Prerequisite: CLPS 0300 (COGS 0410)

Spr CLPS1330 S01 24534 TTh 9:00-10:20(06) (L. Kertz)

**CLPS 1341. Lexical Semantics (formerly COGS 1120).**

The representation of word meaning and generalizations about the way in which meanings are packaged into words. Topics include: “fuzzy” meanings, natural kind terms, how word meanings are decomposed. Special emphasis on how temporal properties are encoded, on the status of “thematic relations,” and on how the fine-grained structure of word meanings impacts on the syntax. Recommended prerequisite: CLPS 0030 (COGS 0410)

Fall CLPS1341 S01 15203 TTh 1:00-2:20(10) (P. Jacobson)

**CLPS 1381. Topics in Phonetics and Phonology: Intonational Phonology.**

This course is an in-depth study of intonation—the manipulation of pitch and length to signify sentence-level meaning—in English as well as in other languages. This course will have two components, which will overlap considerably. In the laboratory skills component, you will learn how to collect, transcribe, measure, and analyze intonational data in PRAAT (a program for acoustic analysis), while in the theoretical component, you will read about and test the claims of various theories of intonation. With these skills, you will conduct independent research over the course of the semester. The course will also cover the interface between intonation and syntax/semanatics, including the realization of focus in prosody

Spr CLPS1381 S01 24535 MWF 9:00-9:50(02) "To Be Arranged"

**CLPS 1383A. The Boundary of Semantics and Pragmatics.**

This course will examine some recent controversies regarding the question of just what is accounted for by grammatical apparatus as opposed to what can be accounted for by "Gricean" pragmatics (i.e., inferences that listeners draw that are not encoded in the grammar). Particular attention will be paid to some topics surrounding negation, including the distribution of "Negative Polarity Items". Prerequisite: CLPS 1330, 1340, or 1341. Enrollment limited to 40

Spr CLPS1383A S01 25237 TTh 1:00-2:20(10) (P. Jacobson)

**CLPS 1400. The Neural Bases of Cognition (formerly PSYC 1880).**

Research using animal models has informed and guided many of the recent advances in our understanding of the brain mechanisms underlying cognition. This seminar course will address topics related to animal models of human cognition. Students learn about how different aspects of the neural bases of cognition are modeled in animals by reviewing the
primary research literature. The course is divided into three sections, each addressing one animal model in one cognitive domain. Selected papers will emphasize learning, memory, and attention, but may also address other aspects of cognition, for example decision-making, or cognitive impairment associated with neuropathology or aging. Prerequisite: CLPS 0040 (COGS 0720), CLPS 0400 (PSYC 0470), or NEUR 0010; and CLPS 1190 (PSYC 1030), CLPS 1191 (PSYC 1450), CLPS 1192 (PSYC 1200), or NEUR 1600; or instructor permission. Enrollment limited to 20. Not open to first year students.

Fall CLPS1400 S01 15094 F 1:00-2:50(12) (K. Bath)

This course will train students in the practice and use of functional magnetic resonance imaging (fMRI) as a cognitive neuroscience methodology. Topics covered include MRI physics, the physiological basis of the BOLD signal, experimental design, data collection, statistical analysis, and inference. A practical component of the course includes the opportunity to collect and analyze fMRI data at the Brown MRF. Prerequisites: CLPS 0040 (COGS 0720), CLPS 0400 (PSYC 0470), or NEUR 0010; and CLPS 0900 (PSYC/COGS 0900), or instructor permission. Enrollment limited to 20

Fall CLPS1490 S01 15239 TTh 2:30-3:50(11) (D. Badre)

CLPS 1491. Neural Modeling Laboratory (formerly COGS 1020).
Numerical simulations of cognitively oriented nervous system models. Discussion of parallel, distributed, associative models; construction, simulation, implications, and use. Prerequisites: MATH 0090, 0100, or equivalent; knowledge of a computer language; some background in neuroscience or cognitive science is helpful

Spr CLPS1491 S01 24537 MWF 11:00-11:50(04) (J. Anderson)

CLPS 1492. Computational Cognitive Neuroscience (formerly COGS 1460).
We explore neural network models that bridge the gap between biology and cognition. Begins with basic biological and computational properties of individual neurons and networks of neurons. Examines specialized functions of various brain systems (e.g., parietal cortex, frontal cortex, hippocampus, ganglia) and their involvement in various phenomena, including perception, attention, memory, language and higher-level cognition. Includes a lab component in which students get hands on experience with graphical neural network software, allowing deeper appreciation for how these systems work. Prerequisites: CLPS 0020 (COGS 0010) or CLPS 0200 (COGS 0420), or CLPS 0410 (PSYC 0750) or NEUR 0010

Fall CLPS1492 S01 15213 TTh 10:30-11:50(09) (M. Frank)

CLPS 1500. Ecological Approach to Perception and Action (formerly COGS 1380).
The ecological approach treats perceiving and acting as activities of agent-environment system rather than an isolated "mind," and offers an alternative to the prevailing computational/representational view. Topics include information processing, perception, perception of the 3D environment, visual control of action, dynamics of motor coordination, and self-organization of behavior. Lecture and discussion. Prerequisite (any one of the following): CLPS 0010 (PSYC 0010), CLPS 0200 (COGS 0010), CLPS 0500 (COGS/PSYC 0440), or CLPS 0510 (COGS 0110)

Fall CLPS1500 S01 15214 TTh 2:30-3:50(11) (W. Warren)

CLPS 1520. Computational Vision (formerly COGS 1200).
A detailed introduction to computational models of biological and machine vision summarizing traditional approaches and providing experience with state-of-the-art methods. Topics include low-level vision (color, motion, depth and texture), segmentation, face, object and scene recognition. Connections to contemporary research in computer vision and computational neuroscience will be emphasized highlighting how computational models may motivate the development of new hypothesis for experiment design in cognitive psychology

Fall CLPS1520 S01 15215 TTh 1:00-2:20(10) (T. Serre)

CLPS 1530. 3D Shape Perception (formerly COGS 1860B).
Our ability to move in the environment, recognize and grasp objects, depends enormously on the capacity that the brain has in organizing the visual stimulation in the perceived 3D layout. 3D objects in the world project on the human retina flat images. How does the brain re-transform these flat images into a 3D representation? Enrollment limited to 40

Spr CLPS1530 S01 24538 M 3:00-5:20(13) (F. Domini)

CLPS 1540. Human Factors (formerly COGS 1160).
The application of knowledge of human characteristics to the design of equipment, facilities, and environments for human use. Research on attention, perception, learning, and decision making will be applied to problems in various areas including: aviation, highway safety, industrial safety, consumer products, human-computer interaction, and aging. Enrollment limited to 25

Spr CLPS1540 S01 24539 MWF 2:00-2:50(07) (K. Spoehr)

CLPS 1580A. Visually-Guided Action and Cognitive Processes.
One of the main purposes of encoding visual information is to perform visually-guided actions to directly interact with the external world. This seminar will shed light on the behavioral and underlying neural mechanisms involved in integrating perception and cognitive processes, and converting them into action. We will also explore how visuo-motor behavior can provide a useful tool to study a wide range of conscious and unconscious cognitive processes including the current focus of attention, the nature of language representation, spatial representation of number, and high-level decision-making. Prerequisite: CLPS 0010 (PSYC 0010), CLPS 0200 (COGS 0010), or NEUR 0010. Enrollment limited to 40

Fall CLPS1580A S01 15240 Th 4:00-6:20(15) (J. Song)

CLPS 1590. Visualizing Vision (formerly COGS 1440).
This course provides hands-on experience in studying vision using computer graphics combined with visual psychophysics. Students will gain a better understanding of how images are formed, how one employs properties of image formation in the experimental study of vision, and how the perception of complex images function in biological systems. Labs will rely on matlab and several computer graphics packages (e.g; Lightwave). Enrollment limited to 20

Spr CLPS1590 S01 24540 TTh 1:00-2:20(10) (F. Domini)

CLPS 1621. The Developing Brain (formerly PSYC 1750C).
Analysis of brain development, focusing on neural substrates of psychological processes in both animals and humans. Prerequisites: CLPS 0010 (PSYC 0010) or NEUR 0010. Not open to first year students or sophomores. Instructor permission required

Spr CLPS1621 S01 24541 TTh 2:30-3:50(11) (A. Simmons)

CLPS 1680B. Topics in Development - Developmental Disorders.
This course will examine developmental disorders from a developmental cognitive neuroscience perspective. We will examine issues general to studying developmental disorders. What is the role of understanding typical development in examinations of atypical development? What are the appropriate experimental strategies for studying disorder? Readings will focus on the neurobiological substrates of disorder, associated cognitive impairments, and clinical symptoms. We will then focus on specific disorders. Recommended prerequisites: CLPS 0610 (COGS 0630), and CLPS 0900 (COGS/PSYC 0090) or equivalent.

Enrollment limited to 20. Prerequisite: CLPS 0040, 0600, or 0610. WRIT Fall CLPS1680B S01 16178 M 3:00-5:20(13) (D. Amso)

CLPS 1690. Laboratory in Developmental Psychology (formerly COGS 1610).
Conceptual and methodological foundations of research design and analysis in developmental psychology, with particular reference to techniques commonly used in studying cognitive development. We will cover general principles of experimental design, measurement and assessment, and strategies of data analysis. Practical and ethical issues involved in conceiving, designing, executing, interpreting, and presenting research will be considered. Recommended prerequisites: CLPS 0610 (COGS 0630), and CLPS 0900 (COGS/PSYC 0090) or equivalent.

Enrollment limited to 15

Spr CLPS1690 S01 24542 Th 4:00-6:20(15) (A. Amso)

CLPS 1700. Abnormal Psychology (formerly PSYC 1330).
The study of anxiety, stress, and neurotic disorders, psychosomatic disorders, deviant social behavior, affective disorders, and schizophrenia. Considers theories of etiology (causes) and methods of therapeutic treatment, case studies, experimental research, and clinical research

Fall CLPS1700 S01 15216 TTh 9:00-10:20(08) (B. Hayden)
CLPS 1730. Psychology in Business and Economics.
The goal of this course is to explore emerging themes at the intersection of psychological science, business, and behavioral economics. Psychologists are primarily interested in detecting limits to human rationality, whereas economics tends to proceed within the rational-actor model. In business, questions arise of how theoretical models and empirical findings related to the practice of managerial decision-making. Investigations of power and the psychological impact of money are relatively recent additions to the suite of research topics. New methodologies, such as neuro-imaging have led to advances not represented in the traditional framework of organizational psychology. Enrollment limited to 20 junior and senior Psychology concentrators
Fall CLPS1730 S01 15258 MWF 9:00-9:50(02) (J. Krueger)

CLPS 1790. Personality and Clinical Assessment (formerly PSYC 1110).
Examines methods used in the study of child and adult personality, including microanalysis of social interactions, observer report, self report, test data, and life outcome data. Standardized personality assessment instruments will be examined in the context of their reliability, predictive and construct validity. Students will design research projects using these methods, collect and analyze data, give oral presentations, and prepare a written report of their research. Prerequisites: CLPS 0701 (PSYC 0300), and CLPS 0900 (PSYC/COGS 0090) or equivalent. Enrollment limited to 27
Fall CLPS1790 S01 15241 TTh 9:00-10:20(08) (J. Wright)

CLPS 1791. Laboratory in Social Cognition (formerly PSYC 1540).
Examines principles of experimental design and analysis in the context of classic and contemporary research in social cognition. Students replicate and extend several studies on topics such as person perception, social stereotyping, or judgment and decision making. Students will participate in the design of these studies, gather their own data, analyze them, and report the findings in oral presentations and written reports. Prerequisites: CLPS 0010 (PSYC 0010), CLPS 0700 (PSYC 0210), and CLPS 0900 (PSYC/COGS 0090). Enrollment limited to 27
Spr CLPS1791 S01 24570 TTh 10:30-11:50(09) (J. Krueger)

CLPS 1800. Language Processing (formerly COGS 1410).
Explores the nature of language processing with the goal of understanding how we produce and comprehend language. Topics include speech production and speech perception, lexical processing, and syntactic processing. Experimental investigations are studied in an attempt to understand the processes and mechanisms employed in the everyday use of language. Prerequisite: one of CLPS 0020 (COGS 0010), CLPS 0030 (COGS 0410), or CLPS 0800 (COGS 0450)
Fall CLPS1800 S01 15242 MW 11:00-11:50(04) (L. Kertz)

Examines general philosophical and theoretical issues that cut across cognitive science. Each student writes a substantial paper on a topic in cognitive science. Required of cognitive science concentrators. Enrollment limited to concentrators in the 7th semester or beyond, and, by permission, to others who have significant course background in cognitive science
Spr CLPS1900 S01 24543 MW 1:00-1:50(06) (J. Anderson)

Independent study or directed research in cognitive science. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor permission required

Required of all ScB concentrators and Honors students in psychology. Instructor permission required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Introduces students to the CLPS Department and the University; provides a brief history of the disciplines, philosophical foundations, and ethical treatment of human subjects; provides professional training, such as preparation of CV and research statement, practice in grant writing, and foundations in scientific writing and presentation; and supports students' early stages of developing a first-year project
Fall CLPS2000 S01 15218 MW 2:00-3:50(07) (B. Malle)

CLPS 2091. Graduate First Year Project Research (formerly PSYC 2000).
Please check Banner for the correct section number and CRN to use when registering for this course

CLPS 2092. Graduate First Year Project Research (formerly PSYC 2010).
Please check Banner for the correct section number and CRN to use when registering for this course. Instructor permission required

CLPS 2095. Practicum in Teaching (formerly COGS/PSYC 2050).
Each student will assist a designated faculty member in teaching a course in cognitive science or related discipline. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor permission required

CLPS 2096. Directed Graduate Research (formerly COGS 2980/2981, PSYC 2303).
No description available. Instructor permission required

CLPS 2400. Core Topics in the Neural Basis of Behavior (formerly PSYC 2270).
Seminar on comparative aspects of brain evolution and function, with implications for behavior. Open to graduate students only
Spr CLPS2400 S01 25691 TTh 9:00-10:20 (A. Simmons)

CLPS 2450. Exchange Scholar Program (formerly COGS 2450).

CLPS 2500. Core Topics in Perception (formerly COGS 2200C, PSYC 2400).
No description available. Open to graduate students only
Spr CLPS2500 S01 24544 M 3:00-5:20(13) (J. Song)

CLPS 2700. Core Topics in Social Psychology (formerly PSYC 2200).
A survey of classic and contemporary research in social psychology, including attitude formation and change, person and self perception, stereotyping, and intergroup relations. Open to graduate students only
Fall CLPS2700 S01 15259 Arranged (J. Krueger)

CLPS 2770. Moral Psychology.
A survey of contemporary research in moral psychology. Covers various psychological mechanisms supporting moral judgment and behavior, their development, their neural basis, and models of the biological and cultural evolution of morality. Enrollment by advanced undergraduates is contingent upon permission of the instructor. Enrollment limited to 15
Fall CLPS2770 S01 16322 Th 4:00-6:20(15) (F. Cushman)

CLPS 2800. Core Topics in Language (formerly COGS 2200B).
No description available. Open to graduate students only
Fall CLPS2800 S01 16597 Arranged (J. Morgan)

CLPS 2906. Experimental Design (formerly PSYC 2600).
The course designed for students at the intermediate level or above and will cover t-tests, power analysis, correlation, simple and multiple linear regression, logistic regression, analysis or variance, non-parametric tests, randomization and bootstrapping, among others. Instructor permission required. Open to graduate students only
Fall CLPS2906 S01 15220 TTh 9:00-10:20(08) (W. Heindel)

CLPS 2908. Multivariate Statistical Techniques (formerly PSYC 2800).
This course covers the basic multivariate techniques currently used in psychology and related sciences: multiple regression, logistic regression, principal components and factor analysis, multivariate analysis of variance, discriminant function analysis, and log-linear analysis. Students will learn these techniques’ conceptual foundations, their proper selection for a given data set, and the interpretation of computer output from statistical analysis packages (primarily SPSS). Enrollment limited to 20 graduate students
Spr CLPS2908 S01 24571 MW 10:30-11:50(03) (B. Malle)

CLPS 2910. Doing Bayesian Data Analysis.
A tutorial introduction to doing Bayesian statistics for data analysis, starting from the basics of probabilities and Bayes’ theorem. Part 1 of the course will work through contemporary Monte Carlo methods in the context of simple analyses, building up to simple linear regression and
Bayesian versions of single-factor ANOVA. In Part 2, null hypothesis significance testing will be contrasted with Bayesian approaches to null value assessment and Bayesian approaches to power. A variety of more complicated realistic applications will be tackled, covering Bayesian versions of multiple linear regression, logistic regression, analysis of variance, etc., including consideration of repeated measures designs. Prerequisite: CLPS 2906 or equivalent. Enrollment limited to 15

**CLPS 2970. Preliminary Examination Preparation (formerly COGS/PSYC 2970).** For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

**CLPS 2990. Thesis Preparation (formerly COGS/PSYC 2990).** For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

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**Linguistics**

**LING 0030. Introduction to Linguistic Theory (CLPS 0030).** Interested students must register for CLPS 0030 S01 (CRN 15095)

**LING 0330. The Grammar of English (CLPS 0330).** Interested students must register for CLPS 0330 S01 (CRN 16080)

**LING 0800. Language and the Mind (CLPS 0800).** Interested students must register for CLPS 0800 S01 (CRN 24531)

**LING 1330. Introduction to Syntax (CLPS 1330).** Interested students must register for CLPS 1330 S01 (CRN 24534)

**LING 1341. Lexical Semantics (CLPS 1341).** Interested students must register for CLPS 1341 S01 (CRN 15203)

**LING 1381. Topics in Phonetics and Phonology: Intonation Phonology (CLPS 1381).** Interested students must register for CLPS 1381 S01 (CRN 24535)

**LING 1383A. The Boundary of Semantics and Pragmatics (CLPS 1383A).** Interested students must register for CLPS 1383A S01 (CRN 25237)

**LING 1800. Language Processing (CLPS 1800).** Interested students must register for CLPS 1800 S01 (CRN 15242)

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**Comparative Literature**

**COLT 0510J. Modern Arabic Literature.** An introduction to the canonical and not-so-canonical texts—poetry as well as prose—of modern Arabic literature. Our study will be guided by an interrogation of each term in the course title: what does "modern" mean in the context of Arabic literary history? Is all "Arabic" literature written in Arabic, and how is this topic treated in the texts themselves? Finally, is the Arabic "adab" the same as the English "literature"? Readings by al-Muwaiyihi, Mahmoud, Habibi, Ghali, Cossery, Salih, Shammas, Darwish, Adonis, and others. DVPS

Fall COLT0510J S01 14931 TTh 1:00-2:20(10) (R. Creswel)

**COLT 0510K. The 1001 Nights.** Explores the origins, performance, reception, adaptation, and translation of the 1001 Nights, one of the most beloved and influential story collections in world literature. We will spend the semester in the company of genies, princes, liars, slaves, mass murderers, orientalists, and Walt Disney, and will consider the Nights in the context of its various literary, artistic, and cinematic afterlives

Fall COLT0510K S01 14960 MWF 10:00-10:50(03) (E. Muhanna)

**COLT 0510L. What is Tragedy?.** Introduction to tragedy. Readings may include Sophocles, Shakespeare, Hegel, Chekhov, Chan-wook Park, and Jia Zhangke. Enrollment limited to 20 first year students. FYS

Spr COLT0510L S01 23828 TTh 9:00-10:20(08) (P. Saval)

**COLT 0510M. Early Modern Selves: From Soliloquy to Self-Portrait.** We will study the early modern self through its manifestation in the soliloquy (Shakespeare), philosophical treatise (Descartes), early modern poetry, and self-portraiture (Rembrandt). After examining Hamlet's "To be or not to be" speech and other Shakespearean soliloquies as moments in which characters represent themselves in speech, we will turn to Descartes' view of man's essence as his thinking nature. We will then read metaphysical poetry to understand the influence of religion on the early modern self. Readings include Hamlet, Richard II and III, Taming of the Shrew, Discourse on Method, Meditations, and poetry by John Donne

Spr COLT0510M S01 25853 MWF 11:00-11:50(04) (J. Morgan)

**COLT 0610D. Rites of Passage.** Examines a seemingly universal theme-coming of age-by focusing on texts from disparate periods and cultures. Proposes that notions of "growing up" are profoundly inflected by issues of class, gender and race, and that the literary representation of these matters changes drastically over time. Texts from the Middle Ages to the present; authors drawn from Chrétiens de Troyes, Quevedo, Prébois, Balzac, Bronté, Twain, Faulkner, Vesaas, Rhys, Satrapi and Foer. Enrollment limited to 20 first year students. FYS

Fall COLT0610D S01 14283 TTh 1:00-2:20(10) (A. Weinstein)

**COLT 0610E. Crisis and Identity in Mexico, 1519-1968.** Examines four moments of crisis or critical moments for the forging of Mexican identity: the Conquest, the hegemonic 17th century, the Mexican Revolution, the "Mex-hippies" of the 1960s. We especially explore how key historical, essayistic, and literary writings have dealt with Mexico's past and present, with trauma and transformation. Excellent preparation for study in Mexico. In English. No prerequisites. WRIT

Fall COLT0610E S01 15170 TTh 2:30-3:50(11) (S. Merrim)

**COLT 0610N. Being There: Bearing Witness in Modern Times (ENGL 0800F).** Interested students must register for ENGL 0800F S01 (CRN 14839)

**COLT 0610O. The Death of the Subject in Twentieth and Twenty-first Century Literature.** Examines the condition of the subject in Western novels and plays written after 1945. Traditional markers of identity in works of literature are being eroded by globalization, split families, the invasion of science in genetics, and increased mobility. Signs of this crisis include loss of agency and individuality, various pathologies including schizophrenia, and the replacement of humans with clones. We will investigate the intricacies of the derailing of the subject and how literary form is affected in novels by Beckett, Coetzee, W. G. Sebald, Kazuo Ishiguro, Michel Houellebecq, Chuck Palahniuk, and in plays by Caryl Churchill

Spr COLT0610OS01 25963 MWF 9:00-9:50(02) (S. Christensen)

**COLT 0710C. Introduction to Scandinavian Literature.** An introduction to major works of Scandinavian writers, painters and filmmakers over the past 150 years. Figures include Kierkegaard, Ibsen, Strindberg, Munch, Hamsun, Josephson, Södergran, Lagerkvist, Vesaas, Cronqvist, August and Vinterberg, as well as children's books by Astrid Lindgren and Tove Jansson

Spr COLT0710C S01 24547 TTh 9:00-10:20(08) (A. Weinstein)

**COLT 0710L. New Worlds: Reading Spaces and Places in Colonial Latin America.** An interdisciplinary journey-combining history, literature, art, film, architecture, cartography-through-representations of the many worlds that comprised the colonial Hispanic New World. We traverse the paradisiacal Antilles, the U.S. Southwest, Nahuatl/Mexico City, Lima, Potosí. We read European, indigenous, and Creole writers, including: Columbus, Las Casas, Bernal Diaz, Aztec poets, Guaman Poma, Sor Juana. In English. Excellent preparation for study abroad in Latin America. Enrollment limited to 20 first year students. FYS WRIT

Fall COLT0710L S01 14286 F 3:00-5:20(15) (S. Merm)

**COLT 0810H. How Not to Be a Hero.** Shakespeare wrote two great and intense plays about ancient characters who were irredeemable failures: Coriolanus and Timon of Athens. What can failure teach us when no good comes of it? What kind of strength may a language of failure possess? We will also read the ancient sources who were irredeemable failures: Caesar, Oedipus, and Timon. Readings include Coriolanus, Timon of Athens, Shakespeare Plays by Beckett, Coetzee, Sebald, Vesaas, Cronqvist, August and Vinterberg, as well as children's books by Astrid Lindgren and Tove Jansson. In English. Excellent preparation for study abroad in Latin America. Enrollment limited to 20 first year students. FYS WRIT

Fall COLT0810HS01 14404 MWF 11:00-11:50(04) (K. Haynes)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
COLT 0810M. Uncanny Tales: Narratives of Repetition and Interruption.
Close readings of short narratives with special attention to how formal and thematic elements interact to produce the effects of uncertainty, anxiety and incoherence peculiar to "the uncanny." Topics include: the representation of the self in images of the arts; the representation of speech; instabilities of identity and spatial and temporal boundaries; doubles, monsters, and automatons. Texts selected from: Walpole, Shelley, Hoffmann, Kleist, Poe, Dostojevsky, Freud, Wilde and Kafka.
Fall COLT0810MS01 16191 MWF 11:00-11:50(04) (S. Bernstein)

COLT 0811M. Planes, Trains, and Automobiles: Travel and Transport in Modern Literature and the Arts.
This course studies how new modes of transportation and the experiences they enabled stood as symbols of both the fears and joys of rapid modernization in 19th- and 20th-century literature, film, and visual art. How did the speeding locomotive, the plane's aerial view, and the personal freedom of the automobile transform the ways people traversed space, experienced time, traded, and came into contact with one another? In formal terms, how did these experiences inspire innovations in the media we examine by Whitman, Kipling, Baudelaire, Marinetti, Brecht, Woolf, Huxley, Stein, Ruttman, Wegman, Picabia, Duchamp and others? No prerequisites
Fall COLT0811MS01 16115 MWF 10:00-10:50(03) (S. Solomon)

COLT 0811N. Poetics of Madness: Aspects of Literary Insanity.
Surveys a wide range of literary texts aiming primarily to trace the long process of transition from pre-modern to modern conceptions of madness, and to codify the symbolic logic and discursive modalities underlying its respective representations. Spanning several centuries of artistic preoccupation with the alienated mind, these texts will serve as guides in an intense exploration of the relationship between insanity and literature, as it has been shaped by a set of social impulses, cultural assumptions, or scientific developments. Authors include Euripides, Shakespeare, Cervantes, Hoffmann, Flaubert, Nerval, Maupassant, Gogol, Dostoevsky, Stevenson, James, Woolf, Breton, and Kazantzakis
Spr COLT0811NS01 25964 TTh 2:30-3:50(11) (N. Panou)

COLT 1210. Introduction to the Theory of Literature.
An historical introduction to problems of literary theory from the classical to the postmodern. Issues to be examined include mimesis, rhetoric, hermeneutics, history, psychoanalysis, formalisms and ideological criticism (questions of race, gender, sexuality, postcolonialism). Primarily for advanced undergraduates. Lectures, discussions; several short papers
Fall COLT1210 S01 14405 MWF 1:00-1:50(06) (S. Bernstein)

COLT 1310A. The Classical Arabic Literary Tradition.
Introduces the classical Arabic literary tradition, from the poetic masterpieces of pre-Islamic Arabia to the courtly romances and story collections of the medieval period. Topics include: literature and the Qur'an; poetic and prose genres; aesthetics and the divine; Hellenistic influences; popular literature; the medieval "novel"; and the intersections of literature and law, medicine, and historiography. We will also assess different critical approaches to the study of classical Arabic literature, including structuralism, folkloristics, and narratology
Spr COLT1310AS01 24269 MWF 10:00-10:50(03) (E. Muhanna)

COLT 1310B. Classics of Indian Literature (CLAS 1160).
Interested students must register for CLAS 1160 S01 (CRN 15538)

COLT 1310C. Twentieth-Century Western Theatre and Performance (TAPS 1250).
Interested students must register for TAPS 1250 S01 (CRN 25016)

COLT 1410U. Shakespeare in Perspective.
We study Shakespeare together with selections from other writers or thinkers, including those who have written about Shakespeare (e.g. Nietzsche, Emerson, Coleridge), and those who can illuminate interpretive problems in Shakespeare (e.g. Plato, Melville).
Fall COLT1410US01 14406 MWF 12:00-12:50(12) (P. Saval)

COLT 1410V. Russian Theatre and Drama (TAPS 1430).
Interested students must register for TAPS 1430 S01 (CRN 15459)

COLT 1410W. mujeres ARIBA! Feminist Playwrights in Spanish Theater (TAPS 1281R).
Interested students must register for TAPS 1281R S01 (CRN 16579)

COLT 1420A. The Tale of Genji and its Legacy.
The Tale of Genji (circa 1000 CE), authored by Murasaki Shikibu, a woman of the Heian court, has been canonized over the centuries as the greatest work of Japanese literature. No work in the Japanese tradition has exerted as much literary influence as this mammoth work of prose fiction detailing the private lives of Genji, the brilliant son of the emperor, those with whom he consorts, and his descendents. We will read Genji in its entirety, along with antecedent works, other texts of the period, works influenced by Murasaki's opus, other historical materials, and secondary commentary. There are no prerequisites for this course and it is open to all undergraduates
Spr COLT1420AS01 23706 MWF 2:00-2:50(07) (M. Viswanathan)

COLT 1421Q. Word and Image: Ekphrasis, the Iconic Narrative, and the Graphic Novel.
An examination of the tradition of illustrated narratives from the pre-modern to the modern periods: the ancient Indian epic the Ramayana, the early eleventh-century Japanese Genji Monogatari, the medieval English Canterbury Tales, the late eighteenth century Marriage of Heaven and Hell, as well as the contemporary graphic novel Persepolis and examples of Japanese manga. Discussion will focus on the nature of iconography and symbolism; the historical privileging of text over image; the significance of parallel visual and verbal representation and its implications for culturally-specific theories of reading. Instructor permission required
Spr COLT1421QS01 23707 MWF 12:00-12:50(05) (M. Viswanathan)

COLT 1421T. Mediterranean Fictions.
Sun-drenched, seductive, and bewildering, the Mediterranean has always been a focal point of contact, interaction, and conflict. And more than that: a cradle of civilizations; a timeless repository of memories and aspirations; a porous, protean world; a sea of many horizons, histories, and identities. We will embark on an intensive exploration of some of the basic aspects of Mediterranean culture by means of discussing a wide range of texts on Greece, Turkey, Italy, France, Egypt, Tunisia, and Algeria. Writers include Seferis, Kazantzakis, Papadimitriou, Ali, Gide, Pirandello, Lampedusa, and Pamuk. All readings in English translation
Fall COLT1421TS01 16116 TTh 2:30-3:50(11) (N. Panou)

COLT 1421U. Words Like Daggers: The Epistolary Novel.
Letters as novels, novels in letters: this course traces the development of the epistolary novel, as it was cultivated in Europe from the seventeenth to the twentieth centuries. Through focused discussions of seminal, as much as fascinating, specimens of the genre, we will study the major impact that epistolary fiction had on the stylistic and conceptual evolution of the novel in general, also exploring its interactions with a range of established or shifting social structures, gender roles, discursive practices, and modes of consciousness. Authors include Montesquieu, Laclos, Goethe, Hölderlin, Stoker, Foscolo, Tabucchi, Alexandrou, and Galanaki
Spr COLT1421US01 25965 TTh 6:30-7:50(12) (N. Panou)

COLT 1421V. Modernisms North and South: Ulysses in Dublin, Paris, and Buenos Aires.
This course will read three of the key texts of modernism, the avant-garde, and postmodernism respectively: James Joyce’s Ulysses (Ireland, 1922), André Breton’s Nadja (Paris, 1928), and Julio Cortázar’s Hopscotch (Argentina, 1963). We will explore how all three of these novels, despite belonging to different moments and outposts of literary modernity, circle obsessively around questions of modernization, city life, mass and high culture, national and global identity, and the impact of all of these on minds and on bodies, on the constitution of the individual subject, and on the formation of local communities and traditions
Spr COLT1421VS01 25882 MWF 11:00-11:50(04) (M. Clayton)

COLT 1430H. Poetry, Art, and Beauty.
What does it mean to be beautiful in poetry and art? How is beauty defined from Plato to the blog? What is aesthetics in relation to beautiful practice? A workshop in the reading of lyric poetry and visual art from cave painting to modernism. The three written exercises on text, image, and aesthetics, with creative practice in translation. No final examination. Texts include Sappho, Plato, Aristotle, Catullus, Horace, Petrarch, Goethe, Kant, Wordsworth, Baudelaire, Rilke, Benjamin, Stevens, Derrida, and Danto.
LILE
Spr COLT1430HS01 23708 MWF 1:00-1:50(06) (S. Foley)
COLT 1430V. Comparative Modernisms
An introduction to modernist poetry and poetics in comparative perspective. Though modernism is often considered a uniquely European and American phenomenon, we will read poetry and theoretical texts from Mexico City, Beirut, Buenos Aires, and Beijing. Among the questions we will ask are these: Where are modernism’s geographical and historical limits? What is the relation of modernism to politics? What is the role of translation in modernism’s origins and development? Readings by Baudelaire, Pound, H.D., Borges, Perse, Paz, Adonis, Berman, and others Fall COLT 1430V S01 12407 TTh 9:00-10:20(08) (R. Creswell)

COLT 1430W. Inventions of Farewell.
The elegy, a poem of mourning, is one of the oldest and most widespread genres of literature. It is found in classical Greek and Latin poetry as well the verse of pre-Islamic Arabia. It is also a vital contemporary genre. How do these very different poets respond to the common fact of death? How are loss and absence converted into verbal presence, a text for reading? We will read a range of verse, from disparate periods and cultures, including poems by Virgil, al-Khansa’, Milton, Lorca, Ann Carson, and Breyten Breytenbach. Critical texts include readings by Freud, Sacks, and Ramazani Spr COLT 1430WS01 23829 TTh 10:30-11:50(09) (R. Creswell)

COLT 1440A. Storytelling in The Wire.
The Wire has received attention from fields like sociology and urban studies, which tend to read the work as a fictionalization of their observations about cities. It has not received as much attention from departments of literature, although it should. In our course, traditional categories of literary study (including character, storytelling, fiction, and tragedy) will be wedded to the investigation of contemporary problems that emerge from the work (including class, race, neoliberalism, the disappearance of work, and the death and life of American cities) Spr COLT 1440A S01 24253 TTh 2:30-3:50(11) (P. Saval)

COLT 1440B. Killer Love: Passion and Crime in Fiction and Film.
Discusses textual and cinematic representations of criminal passion and its ambiguous relationship to religious, moral, and social norms. We will focus on extreme forms of intimacy both as a thematic choice of cultural production and as a symbolic medium of communication. Why is it that art so often explores unacceptable emotions and deviant behaviors? What is at stake when narratives capitalize on violent manifestations of desire? In what ways is the semantics of excessive love related to conceptions of subjectivity, sociability, and sexuality? What role does it play in the creative process itself? Fall COLT 1440BS01 16117 TTh 6:30-7:50(14) (N. Panou)

COLT 1440C. Photography and Human Rights (MCM 1503R).
Interested students must register for MCM 1503R S01 (CRN 25592)

COLT 1610E. Aesthetics and Politics (ENGL 1900E).
Interested students must register for ENGL 1900E S01 (CRN 14571)

COLT 1610G. Mikhail Bakhtin (RUSS 1895).
Interested students must register for RUSS 1895 S01 (CRN 25981)

COLT 1710B. Advanced Translation (LITR 1010F).
Interested students must register for LITR 1010F S01 (CRN 24221)

COLT 1812Z. The City and the Arts.
Examines selected representations of urban life from 18th century to our time, by consulting the testimony of literature, painting, architecture and film. Writers and artists include Defoe, Hogarth, Balzac, Whitman, Dostoevsky, Baudelaire, Toulouse-Lautrec, Brecht, F.L. Wright, Le Corbusier, Calvino and Auster; films include "Metropolis," "Man with a Movie Camera," "Alphaville," "Midnight Cowboy," "Chinatown" and others Fall COLT 1812Z S01 14408 TTh 10:30-11:50(09) (A. Weinstein)

COLT 1813A. What Went Wrong? Narratives of Decline in Arabic Literature.
The concept of civilizational decline is a central theme of classical and modern Arabic literature. From the Mongol sack of Baghdad in 1258 to rise of European and American hegemony in the Middle East, Arabs have spent centuries lamenting, debating, and reflecting upon their perceived fall from grace and the rise of other world powers to take their place. In this course, we will trace the question of decline through several centuries of literary and intellectual history. Readings include Ibn Khaldun, Ilyas al-Mawsili, Ibn Battuta, al-Shidyaq, Gibran, Munif, Salih, Said, Lewis, Hourani, and others Fall COLT 1813AS01 14962 MWF 2:00-3:50(07) (E. Muhanna)

COLT 1813B. Dying God (CLAS 1930B).
Interested students must register for CLAS 1930B S01 (CRN 15514)

COLT 1813C. Erotic Desire in the Premodern Mediterranean (CLAS 1750L).
Interested students must register for CLAS 1750L S01 (CRN 24868)

COLT 1813D. Issues in World Literature (ENGL 1761Y).
Interested students must register for ENGL 1761Y S01 (CRN 15334)

COLT 1813E. Chinese Women, Gender and Feminism from Historical and Transnational Perspectives (EAST 1950B).
Interested students must register for EAST 1950B S01 (CRN 23677)

COLT 1813F. Communication Culture and Literary Politics (MCM 1503Q).
Interested students must register for MCM 1503Q S01 (CRN 16459)

Much has been written about the participation of women and non-white people in revolutionary events in the 18th century. But adding hitherto unrecognized actors to the story of the “major” revolutions is not enough for a new understanding of these events that would also illuminate the present. A thorough revision of the very concept of revolution is called for. The study of three authors writing in different periods and genres – de Gouges, Arendt and James – will help us in this task Spr COLT 1813GS01 25724 TTh 1:00-2:20(10) "To Be Arranged"

COLT 1813H. God, Sex and Grammar: Literary Ethics in Medieval Europe.
What does it mean to read and write ethically? While modern culture values intellectual property, many medieval texts celebrated what we call plagiarism. On the other hand, medieval thinkers saw serious consequences in literature, which could lead authors and readers to heaven or hell. But then as now, ethics were rarely clear-cut, subject to forces as diverse as religion, sexual desire, capitalism, and even language itself. Reading some of the great authors of the period, as well as modern critical reflections, we will explore the ethical dimension of literary production in the medieval world and in our own society Spr COLT 1813HS01 25836 TTh 6:30-7:50(12) (J. Moreau)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Section numbers vary by instructor. Please see the registration staff for the correct section number to use when registering for this course

Special work or preparation of honors theses under the supervision of a member of the staff. Open to honors students and to others. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

COLT 2450. Exchange Scholar Program.

COLT 2650J. Genealogy: Nietzsche, Foucault, and After.
Genealogy was one of the most fruitful twentieth-century critical methods. We will begin our investigation by reading Nietzsche’s ‘Use and Abuse of History’, ‘On the Genealogy of Morals’, with attention to the contexts and traditions in which Nietzsche was working. The central part of the class will be devoted Foucault’s large oeuvre, who at different stages of his career developed very different versions of genealogy. We will then consider Alasdair MacIntyre, Bernard Williams, and Raymond Geuss on genealogical forms of moral inquiry, and we will conclude with recent work in science studies Fall COLT 2650JS01 14933 Th 4:00-5:20(15) (K. Haynes)

COLT 2820Y. Shakespeare and Justice: The Merchant of Venice and Measure for Measure.
We will read The Merchant of Venice and Measure for Measure with patience and attention. Thematic concerns that emerge from the work

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
(including problems of justice, violence, and the law) will be wedded to slow, detailed examination of the primary texts.

Fall COLT2820Y S01 14934 W 3:00-5:20(14) (P. Savall)

COLT 2820Z. The Encyclopedic Imagination from Pliny to Google Books.

Considers the history of encyclopedic activity in various classical, medieval, and modern contexts. We will explore issues of the encyclopedia_trampoline, book history, the classification of knowledge, and the obsession to collect, compile, and document everything knowable and unknowable in both real and fictional encyclopedias. Readings will include selections from Pliny, Isidore de Seville, Vincent de Beauvais, the Lutheran al-Safa', al-Jahiz, Avicenna, Rabelais, Diderot, Flaubert, Calvino, Borges, Foucault, and others. Enrollment limited to 40.

Spr COLT2820Z S01 24270 W 3:00-5:20(14) (E. Muhanna)

COLT 2821A. Representing London circa 1600 (COLT 2360T).

Interested students must register for ENGL 2360T S01 (CRN 24793).

COLT 2821B. Memory/Commemoration/Testimony.

An investigation of the mnemonic functions of poetry from the elegy to historical witnessing in the Romantic and post-romantic period. We will study the creative and performative function of memory as well as processes of repetition, recollection, trauma and canon-formation. Theoretical and poetic texts will be studied together. Authors will include: Rousseau, Wordsworth, Hölderlin, Lamartine, Baudelaire, Dickinson, H.D., Rilke, Celan, Reznikoff; Heidegger, Freud, Arendt, Adorno, Derrida, de Man, Ronell.

Spr COLT2821B S01 25440 M 3:00-5:20(13) (S. Bernstein)

COLT 2830J. Ontology of Life: Reading Heidegger's Being and Time with Derrida (GRMN 2660K).

Interested students must register for GRMN 2660K S01 (CRN 16321).

COLT 2890. Reading and Research.

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

COLT 2890. Thesis Preparation.

For graduate students who have met the tuition requirement and are paying the Registration Fee to continue active enrollment while preparing a thesis.

Computer Science

CSCI 0020. The Digital World.

Removes the mystery surrounding computers and the ever-growing digital world. Introduces a range of topics including the World Wide Web and many aspects of multimedia, along with the underlying digital technology and its relevance to our society. Other topics include artificial intelligence, IT security, ethics and economics of computing as well as the effects of its pervasiveness in today's world. Introductory programming and analytic skills are developed through HTML, Photoshop, Access and Python assignments. CSCI 0020 is a good introduction to a wide range of CS topics that have broad relevance in our society. No prerequisites. LILE

Fall CSCI0020 S01 15412 TTh 9:00-10:20(08) (D. Stanford)

CSCI 0040. Introduction to Scientific Computing and Problem Solving.

An introduction to computer programming and software design in a high-level language. Emphasizes fundamental techniques and strategies for solving scientific problems with computers. Illustrates abstract concepts with a wide range of exemplary applications from engineering, the sciences, and the humanities. Intended for students who want a single application-oriented programming course. This course is not intended for computer science concentrators. No prerequisites

Spr CSCI0040 S01 24816 TTh 2:30-3:50(11) (M. Herlihy)

CSCI 0081. TA Apprenticeship: Full Credit.

Being an undergraduate TA is a learning experience: one not only gets a deeper understanding of the course material, but gains management and social skills that are invaluable for one's future. Students taking this course must first be selected as an undergraduate TA for a Computer Science course, a course the student has taken and done well in. Students will work with the course's instructor on a variety of course-related topics, including preparation of material and development of assignments.

Whether CSCI 0081 or its half-credit version (CSCI 0082) is taken is up to the professor of the course being TA'd. Instructor permission required.

Fall CSCI0081 S01 15729 W 6:00-8:20PM(18) (T. Doepner)

Fall CSCI0081 S02 16466 F 3:00-5:20(15) (T. Doepner)

Spr CSCI0081 S01 25097 Arranged (T. Doepner)

CSCI 0082. TA Apprenticeship: Half Credit.

Being an undergraduate TA is a learning experience: one not only gets a deeper understanding of the course material, but gains management and social skills that are invaluable for one's future. Students taking this course must first be selected as an undergraduate TA for a Computer Science course, a course the student has taken and done well in. Students will work with the course's instructor on a variety of course-related topics, including preparation of material and development of assignments.

Whether CSCI 0082 or its full-credit version (CSCI 0081) is taken is up to the professor of the course being TA'd. Instructor permission required.

Fall CSCI0082 S01 15730 TTh 6:30-7:50(14) (T. Doepner)

Fall CSCI0082 S02 16470 M 3:00-5:20(13) (T. Doepner)

Spr CSCI0082 S01 25098 Arranged (T. Doepner)

CSCI 0150. Introduction to Object-Oriented Programming and Computer Science.

Emphasizes object-oriented design and programming in Java, an effective modern technique for producing modular, reusable, internet-aware programs. Also introduces interactive computer graphics, user interface design and some fundamental data structures and algorithms. A sequence of successively more complex graphics programs, including Tetris, helps provide a serious introduction to the field intended for both potential concentrators and those who may take only a single course. No prerequisites

Fall CSCI0150 S01 15423 TTh 2:30-3:50(11) (A. van Dam)

CSCI 0160. Introduction to Algorithms and Data Structures.

Introduces fundamental techniques for problem solving by computer that are relevant to most areas of computer science, both theoretical and applied. Algorithms and data structures for sorting, searching, graph problems, and geometric problems are covered. Programming assignments conform with the object-oriented methodology introduced in CSCI 0150. Prerequisite: CSCI 0150 or written permission

Spr CSCI0160 S01 24808 TTh 10:30-11:50(08) (D. Laidlaw)

CSCI 0170. Computer Science: An Integrated Introduction.

CSCI0170/0180 is an introductory sequence that helps students begin to develop the skills, knowledge, and confidence to solve computational problems elegantly, correctly, efficiently, and with ease. The sequence is unique in teaching both the functional and imperative programming paradigms—the first through the languages Scheme and ML in CSCI0170; the second through Java in CSCI0180. The sequence requires no previous programming experience. Indeed, few high school students are exposed to functional programming; hence even students with previous programming experience often find this sequence an invaluable part of their education. Although students are taught to use programming languages as tools, the goal of CSCI0170/0180 is not merely to teach programming. On the contrary, the goal is to convey to students that computer science is much more than programming! All of the following fundamental computer science techniques are integrated into the course material: algorithms, data structures, analysis, problem solving, abstract reasoning, and collaboration. Concrete examples are drawn from different subareas of computer science: in 0170, from arbitrary-precision arithmetic, natural language processing, databases, and strategic games; in 0180, from discrete-event simulation, data compression, and client/server architectures.

Fall CSCI0170 S01 15402 MWF 11:00-11:50(04) (A. Greenwald)

Fall CSCI0170 S01 15402 W 11:00-11:50(04) (A. Greenwald)

CSCI 0180. Computer Science: An Integrated Introduction.

A continuation of CSCI 0170. Students learn to program in Java while continuing to develop their algorithmic and analytic skills. Emphasis is placed on object-oriented design, imperative programming, and the implementation and use of data structures. Examples are drawn from such areas as databases, strategy games, web programming, graphical user...
interfaces, route finding, and data compression. Lab work done with the assistance of TAs. Prerequisite: CSCI 0170
Spr CSCI0180 S01 24798 MWF 11:00-11:50(09) (A. Greenwald)

CSCI 0190. Accelerated Introduction to Computer Science.
This course is a one-semester introduction to computer science for students with strong prior computer science background. It covers core data structures, algorithms, and analysis techniques similar to those of the two-course introductory sequences (CSCI 0150-0160 and CSCI 0170-0180), integrated with programming. Students who wish to take CSCI 0190 must begin in CSCI 0170 and complete additional work in that course. CSCI 0190 will branch off from CSCI 0170 after approximately one month. Students will be permitted to enroll by permission of the instructor Fall CSCI0190 S01 15404 MWF 11:00-11:50(04) (S. Krishnamurthi)

CSCI 0220. Introduction to Discrete Structures and Probability.
Seeks to place on solid foundations the most common structures of computer science, to illustrate proof techniques, to provide the background for an introductory course in computational theory, and to introduce basic concepts of probability theory. Introduces Boolean algebra, logic, set theory, elements of algebraic structures, graph theory, combinatorics, and probability. No prerequisites
Spr CSCI0220 S01 24797 MWF 9:00-9:50(02) (C. Klivans)

CSCI 0320. Introduction to Software Engineering.
Advanced programming techniques including Java, threads, web-applications, user interfaces and XML. Covers software design including object-oriented design, systems design, web application design and user interface design. Software engineering including modeling, analysis, testing, debugger reuse, the software lifecycle, tools and project management. Prerequisite: CSCI 0160, CSCI 0180 or CSCI 0190. CSCI 0220 is recommended
Spr CSCI0320 S01 24804 MF 2:00-3:30(07) 'To Be Arranged'

CSCI 0330. Introduction to Computer Systems.
High-level computer architecture and systems programming. The course covers the organization of computer systems (in terms of storage units, caches, processors, and I/O controllers) and teaches students assembly-language programming and C-language programming. Extensive programming exercises introduce students to systems-level programming on Linux systems, as well as to multi-threaded programming with POSIX threads. Students will learn the basics of how compilers work and will be introduced to the functions of operating systems. Prerequisite: CSCI 0150, 0180, or 0190
Fall CSCI0330 S01 15720 MWF 2:00-2:50(07) (T. Doepner)

CSCI 0450. Introduction to Probability and Computing.
Probability and statistics have become indispensable tools in computer science. Probabilistic methods and statistical reasoning play major role in machine learning, cryptography, network security, communication protocols, web search engines, robotics, program verification, and more. This course introduces the basic concepts of probability and statistics, focusing on topics that are most useful in computer science applications. Topics include: modeling and solution in sample space, random variables, simple random processes and their probability distributions, Markov processes, limit theorems, and basic elements of statistical inference. Enrollment limited to 45
Fall CSCI0450 S01 15425 TTH 2:30-3:50(11) (E. Upfal)

CSCI 0510. Models of Computation.
The course introduces basic models of computation including languages, finite-state automata and Turing machines. Proves fundamental limits on computation (incomputability, the halting problem). Provides the tools to compare the hardness of computational problems (reductions). Introduces computational complexity classes (P, NP, PSPACE and others). Prerequisite: CSCI 0220 or CSCI 0450
Fall CSCI0510 S01 15416 TTH 1:00-2:20(10) (J. Savage)

CSCI 0530. Directions: The Matrix in Computer Science.
Introduces vectors, matrices and their role in computer science. Consists of three components: (1) concepts, theorems, proofs, (2) procedures and programs, (3) applications and working with data. Revolves around weekly labs where students apply concepts to real tasks with real data. Lab topics include transformations in 2-d graphics, error-correcting codes, image compression using wavelets, synthesizing new perspectives in a photo, face recognition, news story categorization, cancer diagnosis using machine learning, matching airplanes to destinations, Google's PageRank method. Other topics include linear programming, zero-sum games, rudimentary cryptographic methods, linear regression, and discrete linear dynamical systems. Prior exposure to computer programming expected. 999999
Spr CSCI0530 S01 25094 TTh 1:00-2:20(10) (P. Klein)

CSCI 0931. Introduction to Computation for the Humanities and Social Sciences.
Introduces students to the use of computation for solving problems in the social sciences and the humanities. We will investigate a series of real-world problems taken from the news, from books such as Freakonomics, and from current research. Topics covered include data gathering, data analysis, web-based interfaces, security, algorithms, and scripting. Enrollment limited to 25. Instructor permission required.

To be added to the class waitlist, please sign up here: https://docs.google.com/a/brown.edu/spreadsheet/viewform?formkey=dG5GT3hid21YRHRiNFVSZE9EMtlfE6MQ#gid=0
Note: you must use your Brown login. Requests for access for other email addresses will be ignored
Spr CSCI0931 S01 24820 TTh 2:30-3:50(11) (T. Doepner)

Fundamental concepts in 2D and 3D computer graphics, e.g., 2D raster graphics techniques, simple image processing, and user interface design. Focuses on geometric transformations, and 3D modeling, viewing and rendering. A sequence of assignments in C++ culminates in a simple geometric modeler and ray tracer. Prerequisite: CSCI 0160, CSCI 0180, or CSCI 0190. Strongly recommended: CSCI 0530, CSCI 0320, or MATH 0520 (may be taken concurrently). Students who don’t know C++ should take the minicourse offered during the first week of the semester Fall CSCI1230 S01 15413 TTH 10:30-11:50(09) (A. van Dam)

CSCI 1250. Introduction to Computer Animation.
Introduction to 3D computer animation production including story writing, production planning, modeling, shading, animation, lighting, and composting. Students work independently to learn basic skills, then in groups to create a polished short animation. Emphasis is on in-class critique of ongoing work, which is essential for learning the cycle of evaluating work, determining improvements, and implementing them for further evaluation. Students should attend first class to receive instructor’s written permission
Fall CSCI1250 S01 15405 MW 12:00-1:50(12) (B. Meier)

CSCI 1270. Database Management Systems.
Introduction to database structure, organization, languages, and implementation. Relational model, query languages, query processing, query optimization, normalization, file structures, concurrency control and recovery algorithms, and distributed databases. Coverage of modern applications such as the Web, but with emphasis on Database Management Systems internals. Recommended: CSCI 0220 and CSCI 0310 Fall CSCI1270 S01 15409 MW 3:00-4:20(13) (S. Zdonik)

CSCI 1280. Intermediate 3D Computer Animation.
Continues work begun in CSCI 1250 with deeper exploration of technical and artistic aspects of 3D computer animation including more sophisticated shading and lighting methods and character modeling, rigging, animation, and dynamics. After a series of individual exercises, students pursue an independent topic and then, working alone or in pairs, create a polished demonstration. Emphasis is on in-class critique of ongoing work. Prerequisite: CSCI 1250. Students may contact the instructor in December for permission
Spr CSCI1280 S01 24801 MW 12:00-1:50(12) (B. Meier)

CSCI 1290. Computational Photography.
Describes the convergence of computer graphics and computer vision with photography. Its goal is to overcome the limitations of traditional photography using computational techniques to enhance the way we capture, manipulate, and interact with visual media. Topics covered: cameras, human visual perception, image processing and manipulation, image based lighting and rendering, high dynamic range, single view reconstruction, photo quality assessment, non photorealistic rendering, the use of Internet-scale data, and more. Students are encouraged to capture and process their own data. Prerequisites: previous
programming experience, basic linear algebra, calculus, and probability; previous knowledge of computer graphics or computer vision. Strongly recommended: CSCI 1230, CSCI 1430, ENGN 1610.

Fall CSCI1290 S01 15403 MWF 11:00-11:50(04) (J. Hays)

Covers the fundamental concepts, principles, and abstractions that underlie the design and engineering of computer systems. Topics include computer systems organization, modularity, virtualization, communications, atomicity, fault tolerance, security, and performance. Combined lectures and presentation and discussion of case studies. Several hands-on labs and written assignments, as well as a semester-long project that is incrementally worked on throughout the semester.
Prerequisites: CSCI 0160, 0180, or 0190, or permission of the instructor.

Spr CSCI1310 S01 26047 TTh 2:30-3:50(11) (U. Cetintemel)

This course covers all aspects of web application development, including the initial concept, user-centric design, development methodologies, front and back end development, databases, security, testing, load testing, accessibility, and deployment. There will be a substantial team project.
The course is designed for students with a programming background (equiv CSCI 0320/CSCI 0330) who want to learn how to build web applications, and for students with a background in web design, including HTML and Javascript, who are interested in learning how to extend design techniques to incorporate the technologies needed in modern web applications. Project teams will consist of students with both backgrounds.

Spr CSCI1320 S01 24796 MWF 11:00-11:50(04) (S. Reiss)

CSCI 1410. Introduction to Artificial Intelligence.
Theoretical and practical approaches to designing intelligent systems. Example tasks range from game playing to hardware verification. Core topics include knowledge representation, search and optimization, and automated reasoning. Application areas include natural language processing, machine vision, machine learning, and robotics. Strongly recommended: CSCI 0160, CSCI 0180 or CSCI 0190; and CSCI 0220.

Spr CSCI1410 S01 24818 TTh 9:00-10:20(08) (M. Littman)

CSCI 1460. Introduction to Computational Linguistics.
Introduction to computational linguistics (also known as natural-language processing) including the related mathematics and several programming projects. Particular topics include: language modeling (as used in e.g., speech recognition, machine translation), machine translation, part-of-speech labeling, syntactic parsing, and pronoun resolution. Mathematical techniques include basic probability, noisy channel models, the EM (Expectation-Maximization) algorithm, hidden Markov models, probabilistic context-free grammars, and the forward-backward algorithm. Not open to first year students.

Spr CSCI1460 S01 24802 MWF 1:00-1:50(06) (E. Charniak)

CSCI 1510. Introduction to Cryptography and Computer Security.
This course studies the tools for guaranteeing safe communication and computation in an adversarial setting. We develop notions of security and give provably secure constructions for such cryptographic objects as cryptosystems, signature schemes and pseudorandom generators. We also review the principles for secure system design.
Prerequisites: CSCI 0220 and CSCI 0510.

Spr CSCI1510 S01 24811 TTh 10:30-11:50(09) (A. Lysyanskaya)

This course introduces students to applications of probabilistic and statistical methods to the design and analysis of algorithms, in particular randomized algorithms and probabilistic analysis of algorithms. The course covers basic probabilistic techniques such as tail bounds, martingales, coupling, etc., and presents applications of randomized and probabilistic analysis techniques in areas such as graph algorithms, data structures, communication, and Monte Carlo simulations. No prior knowledge of probability theory is assumed. CSCI 1570 recommended but not required.

Spr CSCI1550 S01 24817 MWF 10:00-10:50(03) (F. Vandin)

CSCI 1570. Design and Analysis of Algorithms.
A single algorithmic improvement can have a greater impact on our ability to solve a problem than ten years of incremental improvements in CPU speed. We study techniques for designing and analyzing algorithms.

Typical problem areas addressed include numerical computing, hashing, searching, dynamic programming, graph algorithms, network flow, and string parsing and matching. Prerequisites: CSCI 0160, CSCI 0180, or CSCI 0190, and CSCI 0220.

CSCI 1580. Information Retrieval and Web Search.
Covers traditional material as well as recent advances in information retrieval (IR), the study of indexing, processing, and querying of textual data. The focus will be on newer techniques geared to hypertext documents available on the World Wide Web. Topics include efficient text indexing; Boolean and vector space retrieval models; evaluation and interface issues; Web crawling, link-based algorithms, and Web metadata; text/Web clustering, classification; text mining.

Spr CSCI1580 S01 25555 MF 3:00-4:30(13) (E. Upfal)

CSCI 1600. Introduction to Embedded and Real-Time Software.
Comprehensive introduction to the design and implementation of software for programmable embedded computing systems, those enclosed in devices such as cellular phones, game consoles, and car engines. Includes the overall embedded real-time software design and development processes, as well as aspects of embedded hardware and real-time, small-footprint operating systems. Major project component. Prerequisites: CSCI 0320 or 0360.

Fall CSCI1600 S01 16059 MWF 10:00-10:50(03) (S. Reiss)

This course teaches principles of computer security from an applied viewpoint and provides hands-on experience on security threats and countermeasures. Topics include code execution vulnerabilities (buffer overflow, sandboxing, mobile code), malware (trojans, viruses, and worms), access control (users, roles, policies), cryptosystems (hashing, signatures, certificates), network security (firewalls, TLS, intrusion detection, VPN), and human and social issues. Prerequisites: CSCI 0160, CSCI 0180 or CSCI 0190.

Spr CSCI1660 S01 24814 TTh 1:00-2:20(10) 'To Be Arranged'

Covers not just the principles of operating systems but the intricacies of how they work. Topics include multithreaded programming, managing threads and interrupts, managing storage, processor scheduling, operating-system structure, virtualization, security, and the design of file systems (both local and distributed). Extensive examples are taken from actual systems, including Linux and Windows. Students are expected to complete both problem sets and programming assignments (in C). Prerequisite: CSCI 0320.

Spr CSCI1670 S01 24803 MWF 2:00-2:50(07) (T. Doepner)

CSCI 1680. Computer Networks.
Covers the technologies supporting the Internet, from Ethernet and WiFi through the routing protocols that govern the flow of traffic and the web technologies that are generating most of it. A major concern is understanding the protocols used on the Internet: what the issues are, how they work, their shortcomings, and what improvements are on the horizon. Prerequisite: CSCI 0320, CSCI 0360, or consent of instructor.

Fall CSCI1680 S01 15725 TTh 10:30-11:50(09) (R. Fonseca)

CSCI 1690. Operating Systems Laboratory.
Half-credit course intended to be taken with CSCI 1670. Students individually write a simple operating system in C. Serves to reinforce the concepts learned in 1670 and provides valuable experience in systems programming. Corequisite: CSCI 1670.

Spr CSCI1690 S01 24822 TTh 6:30-7:50(12) (T. Doepner)

CSCI 1730. Introduction to Programming Languages.
Explores the principles of modern programming languages by implementation. Examines linguistic features, especially control operators such as first-class functions, exceptions, and continuations. Studies data and their types, including polymorphism, type inference, and type soundness. Examines compiler and run-time system topics: continuation-passing style and garbage collection. Prerequisite: CSCI 0160, CSCI 0180 or CSCI 0190. Preferred: CSCI 0220, CSCI 0310 and CSCI 0510, or instructor’s permission.

Fall CSCI1730 S01 15399 MWF 10:00-10:50(03) (S. Krishnamurthi)
CSCI 1760. Introduction to Multiprocessor Synchronization.
This course examines the theory and practice of multiprocessor synchronization. Subjects covered include multiprocessor architecture, mutual exclusion, wait-free and lock-free synchronization, spin locks, monitors, load balancing, concurrent data structures, and transactional synchronization.

Fall CSCI1760 S01 15420 TTh 1:00-2:20(10)  (M. Herlihy)

CSCI 1800. Cybersecurity and International Relations.
The global Internet shortens distances, makes businesses more efficient and facilitates greater social interaction. At the same time, it exposes vital national resources to exploitation and makes it easier for the international criminal element to prey on innocent Internet users. Cybersecurity is concerned with making the Internet a more secure and trustworthy environment. In this course we study this topic from the technological and policy points of view. The goal is to facilitate communication across the divide that normally characterizes the technological and policy communities. Enrollment limited to 30. LILJ 211T

Fall CSCI1800 S01 24821 MW 3:00-4:20(14)  (J. Hughes)

CSCI 1810. Computational Molecular Biology
Processing molecular biology data (DNA, RNA, proteins) has become central to biological research and a challenge for science research. Important objectives are molecular sequence analysis, recognition of genes and regulatory elements, molecular evolution, protein structure, comparative genomics. This course models the underlying biology in the terms of computer science and presents the most significant algorithms of molecular computational biology. Prerequisites: CSCI 0160, CSCI 0180 or CSCI 0190, and CSCI 0220, or consent of instructor.

Fall CSCI1810 S01 15418 TTh 10:30-11:50(09)  (B. Raphael)

The course is devoted to computational and statistical methods as well as software tools for DNA, RNA, and protein sequence analysis. The focus is on understanding the algorithmic and mathematical foundations of the methods, the design of associated genomics software tools, as well as on their applications. Topics include: sequence alignment, genome assembly, gene prediction, regulatory genomics, and SNP's variation. The course is open to computer and mathematical sciences students as well as biological and medical students.

Spr CSCI1820 S01 25116 TTh 2:30-3:50(11)  (J. Savage)

CSCI 1900. Software System Design.
Students identify, design, and implement significant software applications and learn and practice techniques of project management, requirements, specification, analysis, design, coding, documentation, testing, maintenance, and communication. Prerequisite: CSCI 0320

Spr CSCI1900 S01 24800 MWF 10:00-10:50(03)  (S. Istrail)

How can artificial systems learn from examples, and discover information buried in massive datasets? This course explores the theory and practice of statistical machine learning. Topics include parameter estimation, probabilistic graphical models, approximate inference, and kernel and nonparametric methods. Applications to regression, categorization, and clustering problems are illustrated by examples from vision, language, communications, and bioinformatics. Prerequisites: CSCI 0160, 0180, or 0190, and comfort with basic probability, linear algebra, and calculus.

Summer only: Students taking this course during the summer semester must also enroll in the summer version of MATH 0350
Spr CSCI1950F S01 25206 TTh 2:30-3:50(11)  (P. Felzenszwalb)

We will study various algorithmic problems that arise in the study of topological phenomena, such as winding number, turning number, knot polynomials, topology of covering spaces (especially Riemann surfaces), and discrete Morse theory. The mathematical topics will be briefly introduced before we move to computations, but some a priori mathematical sophistication will make the course more valuable to the student.

Prerequisite: CSCI 0160, 0180, or 0190
Spr CSCI1950H S01 25095 TTh 1:00-2:20(10)  (J. Hughes)

CSCI 1950N. 2D Game Engines.
2D Game Engines covers core techniques used in the development 2D game engines. Projects involve building different varieties of 2D game engines as well as games that require use of the features implemented in the engines. Topics include high-level engine design, vector and raster graphics, animation, collision detection, physics, content management, and game AI. Prerequisite: CSCI 0160, 0180, or 0190

Fall CSCI1950N S01 15600 W 3:00-5:20(14)  (A. van Dam)

Independent study in various branches of Computer Science. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Important current topics in computer graphics. Course includes reading and discussing current research papers, multiple assignments and preliminary projects in which students implement recent papers, and a demanding final integrative project done in small groups. Prerequisite: CSCI 0320 or CSCI 0360, and CSCI 1230
Spr CSCI2240 S01 24813 TTh 10:30-11:50(09)  (J. Hughes)

CSCI 2270. Topics in Database Management.
In-depth treatment of advanced issues in database management systems. Topics vary from year to year and may include distributed databases, mobile data management, data stream processing and web-based data management. Prerequisite: CSCI 1270
Spr CSCI2270 S01 24806 M 3:00-5:20(13)  (S. Zdonik)

CSCI 2310. Human Factors and User Interface Design.
Covers current research issues involving the implementation, evaluation and design of user interfaces, while also providing a basic background in the fundamentals of user interface evaluation, programming, tools, and techniques. A possible topic is programming and designing device-independent interfaces. Previous topics have included the development of pervasive Internet-based interfaces and software visualization.

Prerequisite: Consent of instructor
Fall CSCI2310 S01 15401 TTh 2:30-3:50(11)  (S. Reiss)

CSCI 2370. Interdisciplinary Scientific Visualization.
The solution of scientific problems using computer graphics and visualization. Working in small multidisciplinary groups, students identify scientific problems, propose solutions involving computational modeling and visualization, design and implement the solutions, apply them to the problems, and evaluate their success. Examples include interactive software systems, immersive CAVE applications, or new applications of existing visualization methods. Prerequisites: all: programming experience; CS students: graphics experience; others: problem ideas. Instructor permission required
Fall CSCI2370 S01 16252 TTh 1:00-2:20(10)  (D. Laidlaw)

CSCI 2590. Advanced Topics in Cryptology.
Seminar-style course on advanced topics in cryptography. Example topics are zero-knowledge proofs, multi-party computation, extractors in cryptography, universal composability, anonymous credentials and ecash, interpretation of cryptography and game theory. May be repeated for credit.

Prerequisite: CSCI 1510 or permission of the instructor
Fall CSCI2590 S01 15428 TTh 10:30-11:50(09)  (A. Lysyanskaya)

CSCI 2820. Medical Bioinformatics.
Devoted to computational problems and methods in the emerging field of Medical Bioinformatics where genomics, computational biology and bioinformatics impact medical research. We will present challenging problems and solutions in three areas: Disease Associations, Protein Folding and Immunogenomics. This course is open to graduate students and advanced undergraduates with Computational or Life Sciences backgrounds. Prior background in Biology is not required
Fall CSCI2820 S01 16486 TTh 2:30-3:50(11)  (J. Hughes)

CSCI 2890. Comprehensive Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

CSCI 2950C. Topics in Computational Biology.
This course will investigate active and emerging research areas in computational biology. Topics include cancer genomics; genome rearrangements and assembly; and protein and regulatory interaction networks. The course will be a mixture of lectures and student presentations of recent conference and journal papers.
CSCI 2950K. Special Topics in Computational Linguistics. Every year will cover a different topic in computational linguistics, from a statistical point of view, including parsing, machine translation, conference, summarization, etc. Prerequisites: CSCI 1460 or permission of the instructor
Fall CSCI2950K S01 15408 MW 2:00-2:50(07) (E. Chamia)  

CSCI 2950T. Topics in Distributed Databases and Systems. This course explores data and resource management issues that arise in the design, implementation, and deployment of distributed computing systems by covering the state of the art in research and industry. Typical topics include cloud computing and sensor networks. Recommended: CSCI 0320 or equivalent
Fall CSCI2950T S01 16253 F 1:00-3:20(06) (U. Cetintemel)  

CSCI 2950U. Special Topics on Networking and Distributed Systems. Explores current research topics in networking, distributed and operating systems. Specific topics may include wireless and sensor networking, Internet-scale distributed systems, cloud computing, as well as the core problems, concepts, and techniques underlying these systems. The course has two components: reading and discussion of current and classical research papers, and a research project related to the topic but ideally drawn from students' own research interests. This is a graduate-level course, undergraduates must join with the consent of the instructor
Fall CSCI2950U S01 25096 Th 10:30-11:50(09) (R. Fonseca)  

CSCI 2951B. Data-Driven Vision and Graphics. Investigates current research topics in image-based graphics and vision. We will examine data sources, features, and algorithms useful for understanding and manipulating visual data. We will pay special attention to methods that harness large-scale or Internet-derived data. Vision topics such as scene understanding and object detection will be linked to graphic applications such as photo editing and image-based rendering. These topics will be pursued through independent reading, class discussion and presentations, and state-of-the-art projects. Strong mathematical skills and previous imaging (vision or computational photography) courses are essential
Spr CSCI2951B S01 24799 MWF 11:00-11:50(04) (J. Hays)  

CSCI 2951E. Topics in Computer Systems Security. This course explores advanced topics and highlights current research in computer security from a systems perspective. Topics include vulnerabilities and defenses for automotive, computing, medical, and industrial control devices, intrusion detection, botnets, secure network protocols, web spam, tracking of web users, JavaScript sandboxing, attacks and defenses for web applications, and security and privacy issues in cloud computing. Research papers and industry reports will be presented and discussed. Also, hands-on experiments and system demonstrations will be performed. CSCI 1660 or equivalent background is essential. Enrollment limited to 12. Instructor permission required
Spr CSCI2951E S01 25560 M 3:00-5:20(13) (R. Tamassia)  

CSCI 2951F. Learning and Sequential Decision Making. The course explores automated decision making from a computer-science perspective. It examines efficient algorithms, where they exist, for single agent and multiagent planning as well as approaches to learning near-optimal decisions from experience. Topics will include Markov decision processes, stochastic and repeated games, partially observable Markov decision processes, and reinforcement learning. Of particular interest will be issues of generalization, exploration, and representation. Each student will be expected to present a published research paper and will participate in a group programming project. Prerequisites: a graduate-level computer science course and some exposure to reinforcement learning from a previous computer-science class or seminar
Fall CSCI2951F S01 16393 M 3:00-4:20(13) (M. Littman)  
Fall CSCI2951F S01 16393 M 3:00-4:20(13) (M. Littman)  

CSCI 2951G. Computational Protein Folding. This course investigates the challenges of protein folding from an algorithmic perspective. A mixture of lectures, discussions, and demonstrations is targeted at computer science graduate students (and advanced undergrads) with an interest in biology and physics but no prior experience necessary; students from other departments with expertise in the subject are welcome. This course is forward-looking, and aims to get students rapidly up to speed to conduct research projects
Fall CSCI2951G S01 16603 M 1:00-1:50(06) (P. Valiant)  
Fall CSCI2951G S01 16603 W 12:00-1:50(06) (P. Valiant)  

CSCI 2951H. Algorithms for Big Data. As advances in technology allow for the collection and storage of vast amounts of data, the task of efficiently analyzing the data and assessing the significance of the discoveries has become a major challenge in algorithms' design. This graduate course/seminar deals with algorithmic tools and techniques for the organization, manipulation and processing of large amounts of data. This course focuses on mathematically well founded algorithmic and statistical techniques
Spr CSCI2951H S01 25879 W 3:00-5:20 (E. Ufpal)  

CSCI 2980. Reading and Research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
Fall CSCI2980 Fall S01 16603 W 12:00-1:50(06) (P. Valiant)  

CSCI 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis
CSCI XLIST. Courses of Interest to Concentrators in Computer Science. Fall 2013 The following courses may be of interest to students concentrating in Computer Science. Please check with the sponsoring department for times and locations.  

Development Studies
DEVL 1000. Seminar in Development Studies. Provides an interdisciplinary introduction to Development Studies. Students will read classic and contemporary texts that present development issues and theories from the perspectives of anthropology, economics, history, political science, and sociology. Efforts to connect theoretical debates to understanding contemporary problems will be encouraged. Reserved for sophomore and junior Development Studies concentrators. If not a DS concentrator, please contact the instructor to obtain an override.
Please note: for spring 2013, interested students must register for SOC 1871D S01 (CRN 23760).  

DEVL 1500. Methods in Development Research. An introduction to the various techniques of research in Development Studies, with a focus on qualitative and field methods. Open to all Development Studies concentrators.
Spr DEVL1500 S02 25060 T 4:00-6:20(15) (J. Costanza)  

DEVL 1600. Tools for Development: From Theory to Practice. Course gives students a platform to define their roles in the field of development, through hands-on skills building, case studies, and conversations with development practitioners and guest lecturers. This course will prepare students to volunteer for small, grassroots development organizations abroad or in the U.S. in a summer experience following the course. Throughout the semester, students will prepare for their summer experiences by working with their host organizations to design their role descriptions, planning their summer travel and living arrangements, gaining appropriate cultural competency, etc. Prerequisite: DEVL 1000 or SOC 1871D (may be taken concurrently). Enrollment limited to 15 Development Studies concentrators. Instructor permission required.
Spr DEVL1600 S01 25821 TTh 2:30-3:50(11) (N. Cherev)  

research will be the central focus of the latter part of the course. Reserved for Development Studies seniors
Fall DEVL1980 S01 15689 T 4:00-6:20(15) (J. Costanza)
Fall DEVL1980 S02 15690 W 3:00-5:20(14) (J. Costanza)
Fall DEVL1980 S02 15690 W 4:30-7:00(14) (J. Costanza)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Reserved for Development Studies seniors

Explores a range of substantive debates in development by drawing on empirical and theoretical work from the disciplines of economics, political science, sociology and anthropology. The course aims to provide students with a broad understanding of current debates and research on development, evaluate both the differences and complementarities in disciplinary perspectives and develop a toolkit of interdisciplinary analytic skills that can be applied to concrete research questions
Fall DEVL2000 S01 15691 Th 9:00-11:50(08) (R. Snyder)

DEVL 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

DEVL XLIST. Courses of Interest to Concentrators in Development Studies
Fall 2012
The following courses may be of interest to Development Studies concentrators. Please see the Development Studies website for a list of approved courses.

Spring 2013
The following courses may be of interest to Development Studies concentrators. Please see the Development Studies website for a list of approved courses.

East Asian Studies

Chinese

CHIN 0100. Basic Chinese.
A year-long introduction to Standard Chinese (Mandarin). Speaking, reading, writing, and grammar. Five classroom meetings weekly. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade submitted at the end of course work in CHIN 0200 covers the entire year and is recorded as the final grade for both semesters
Fall CHIN0100 S01 14230 MWF 9:00-9:50(17) (Y. Wang)
Fall CHIN0100 S01 14230 TTh 9:30-10:20(17) (Y. Wang)
Fall CHIN0100 S02 14231 MWF 10:00-10:50(17) (Y. Wang)
Fall CHIN0100 S02 14231 TTh 10:30-11:20(17) (Y. Wang)
Fall CHIN0100 S03 14232 MWF 1:00-1:50(17) (Y. Wang)
Fall CHIN0100 S03 14232 TTh 1:30-2:20(17) (Y. Wang)
Fall CHIN0100 S04 14233 MWF 2:00-2:50(17) (Y. Wang)
Fall CHIN0100 S04 14233 TTh 2:30-3:20(17) (Y. Wang)

CHIN 0150. Advanced Beginning Chinese.
A year-long intensive course designed for students with some prior knowledge of Chinese. Designed to enhance listening, speaking, and writing skills. Five classroom meetings weekly. Placement interview required. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade submitted at the end of the course work in CHIN 0250 covers the entire year and is recorded as the final grade for both semesters
Fall CHIN0150 S01 14274 MTWThF12:00-12:50(12) (J. Huang Hsieh)

CHIN 0200. Basic Chinese.
A year-long introduction to Standard Chinese (Mandarin). Speaking, reading, writing, and grammar. Five classroom meetings weekly. This is the second half of a year-long course. Students must have taken CHIN 0100 to receive credit for this course. The final grade for this course will become the final grade for CHIN 0100. If CHIN 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing
Spr CHIN0200 S01 23684 MWF 9:00-9:50(17) (Y. Wang)
Spr CHIN0200 S01 23684 TTh 9:30-10:20(17) (Y. Wang)
Spr CHIN0200 S02 23685 MWF 10:00-10:50(17) (Y. Wang)
Spr CHIN0200 S02 23685 TTh 10:30-11:20(17) (Y. Wang)
Spr CHIN0200 S03 23686 MWF 1:00-1:50(17) (Y. Wang)
Spr CHIN0200 S03 23686 TTh 1:30-2:20(17) (Y. Wang)
Spr CHIN0200 S04 23687 MWF 2:00-2:50(17) (Y. Wang)
Spr CHIN0200 S04 23687 TTh 2:30-3:20(17) (Y. Wang)

CHIN 0250. Advanced Beginning Chinese.
A year-long intensive course designed for students with some prior knowledge of Chinese. Designed to enhance listening, speaking, and writing skills. Five classroom meetings weekly. Placement interview required. This is the second half of a year-long course. Students must have taken CHIN 0150 to receive credit for this course. The final grade for this course will become the final grade for CHIN 0150. If CHIN 0150 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing
Spr CHIN0250 S01 23697 MTWThF12:00-12:50(05) (J. Huang Hsieh)

CHIN 0300. Intermediate Chinese.
An intermediate course in Standard Chinese designed to further communicative competence and to develop reading and writing skills. Five classroom meetings weekly. Prerequisite: CHIN 0200 or permission of instructor
Fall CHIN0300 S01 14275 MTWThF12:00-12:50(17) (Y. Wang)
Fall CHIN0300 S02 14276 MTWThF10:00-11:50(17) (Y. Wang)
Fall CHIN0300 S03 14277 MWF 2:00-2:50(17) (Y. Wang)
Fall CHIN0300 S03 14277 TTh 2:30-3:20(17) (Y. Wang)

CHIN 0400. Intermediate Chinese.
An intermediate course in Standard Chinese designed to further communicative competence and to develop reading and writing skills. Five classroom meetings weekly. Prerequisite: CHIN 0300 or permission of instructor
Spr CHIN0400 S01 23698 MTWThF12:00-12:50(16) (Y. Wang)
Spr CHIN0400 S02 23699 MTWThF10:00-11:50(16) (Y. Wang)
Spr CHIN0400 S03 23700 MWF 2:00-2:50(16) (Y. Wang)
Spr CHIN0400 S03 23700 TTh 2:30-3:20(16) (Y. Wang)

CHIN 0500. Advanced Modern Chinese I
An advanced course designed to enable students to read authentic materials. Students enhance their listening, speaking, reading, and writing skills; improve their narrative and descriptive abilities; and learn to express abstract ideas both orally and in writing. Five classroom meetings weekly. Prerequisite: CHIN 0250 or CHIN 0400 or permission of instructor
Fall CHIN0500 S01 14265 MTWThF09:00-9:50(17) (H. Tseng)
Fall CHIN0500 S02 14266 MTWThF11:00-11:50(17) (H. Tseng)
Fall CHIN0500 S03 14267 MTWThF12:00-12:50(17) (H. Tseng)

CHIN 0600. Advanced Modern Chinese I
An advanced course designed to enable students to read authentic materials. Students enhance their listening, speaking, reading, and writing skills; improve their narrative and descriptive abilities; and learn to express abstract ideas both orally and in writing. Five classroom meetings weekly. Prerequisite: CHIN 0500 or permission of instructor
Spr CHIN0600 S01 23688 MTWThF09:00-9:50(17) (L. Hu)
Spr CHIN0600 S02 23689 MTWThF11:00-11:50(17) (L. Hu)
Spr CHIN0600 S03 23701 MTWThF12:00-12:50(17) (L. Hu)

CHIN 0700. Advanced Modern Chinese II
This course is designed to enhance the Chinese proficiency of those who have taken Advanced Modern Chinese I (CHIN 0600) or the equivalent. All four oral emphasized skills are emphasized through selected authentic materials. At the end of the year, students should be able to express their ideas with sophistication and nuance. Drills on complex sentence patterns will be

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
conducted when necessary. Prerequisite: CHIN 0600 or permission of instructor.

**Fall CHIN0700**
- S01 14271 TTh 9:00-10:20(17) (H. Tseng)
- S02 14271 MW 10:00-10:50(17) (H. Tseng)
- S02 14278 MW 2:00-2:50(17) (H. Tseng)
- S02 14278 TTh 2:30-3:50(17) (H. Tseng)

**CHIN 0800. Advanced Modern Chinese II.**
See Advanced Modern Chinese II (CHIN 0700) for course description. Prerequisite: CHIN 0700 or permission of instructor.

**Spr CHIN0800**
- S01 23693 TTh 9:00-10:20(18) (H. Tseng)
- S02 23693 MW 10:00-10:50(18) (H. Tseng)
- S02 23694 MW 2:00-2:50(18) (H. Tseng)
- S02 23694 TTh 2:30-3:50(18) (H. Tseng)

**CHIN 0920C. The Changing Face of China: Advanced Reading in Chinese Media.**
In order to develop advanced reading proficiency and formal oral and writing communication skills, students will listen to and read current news reports and commentaries from various Chinese media sources, such as TV broadcasts, newspapers, magazines, and websites. Through reading and discussion, students will gain a better understanding of a wide range of current issues in a rapidly changing China, including: economics, politics, education, and popular culture. General knowledge of Chinese newspapers, Chinese journalistic writing styles and basic vocabulary and grammatical structures used in the press will also be introduced throughout the course. Class format varies from lecture, discussion, and debate, to interviews and group or individual presentations. Prerequisites: CHIN0800 or the equivalent. Enrollment limited to 18

**Spr CHIN0920C S01 23675 TTh 9:00-10:20(18) (Y. Wang)**

**CHIN 0920D. Business Chinese.**
Business Chinese focuses on practical language skills that are most useful in business interactions in Chinese-speaking communities. Classroom activities are largely based on authentic documents and correspondences as well as a textbook. Through intensive practice in the listening, speaking, reading and writing of the Chinese language for business purposes, this course aims at enhancing students' linguistic knowledge in a business context. Classes are conducted in Chinese. Prerequisite: CHIN 0600 or instructor permission. Enrollment limited to 18

**Fall CHIN0920D S01 16294 MWF 4:00-4:50(13) (W. Hsieh)**

**CHIN 1040. Modern Chinese Literature.**
Introduces students to the most representative writers in 20th century China. Emphasizes textual and historical analyses. Major issues include Westernization, nationalism, revolution, class, gender, and literary innovations. Designated primarily as a literature course, rather than language class, and conducted entirely in Mandarin Chinese. Prerequisite: CHIN 0800. Instructor permission required.

**Fall CHIN1040 S01 14241 TTh 2:30-3:50(11) (L. Wang)**

**CHIN 1910. Independent Study.**
Reading materials for research in Chinese. Sections numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**CHIN 2450. Exchange Scholar Program.**

**East Asian Studies**

This course is an introduction to Japanese culture and aesthetics as represented in pre-modern literature, drama, visual arts, tea practices, and martial arts. Recurring themes include Japanese attitudes toward the natural world; religious elements in traditional conceptions of beauty; and the function of ritual and mindfulness in artistic cultivation. The course is designed for students who have no previous exposure to Japanese studies at the college level; no prerequisites.

**Spr EAST0180 S01 25927 TTh 2:30-3:50(11) (J. Sawada)**

**EAST 1012. Expanding the Canon: A Survey of 20th Century Japanese Literature.**
An introduction to major and minor works of Japanese literature produced during the Japanese Empire as well as post-WWII Japan. Covered writers include canonical novelists such as Tanizaki Junichiro, Kawabata Yasunari, and Oe Kenzaburo, as well as writers lesser known outside of Japan today, including women, queers, revolutionaries and colonial/ resident Koreans.

**Fall EAST0110 S01 14238 TTh 9:00-10:20(08) (S. Perry)**

**EAST 1100. Korean Culture and Film.**
This course aims to introduce and explore various aspects of Korean history, culture and society. Students are expected to develop a comprehensive understanding of Korean culture by examining contemporary films that pertain to issues such as national identity, history, international relations, religion, Korean life style, and family life. Enrollment limited to 18

**Spr EAST1100 S01 23676 TTh 10:30-11:50(09) (H. Wang)**

**EAST 1270. China Through the Lens: History, Cinema, and Critical Discourse.**
This is a critical introduction to the history of mainland Chinese film. It focuses on three dimensions of cinematic practice: the historical context of film productions, the specific context/ form of each film, and the critical reception of Chinese films in film studies. Important themes such as nation, visual modernity, cinematic narrative, and commercialism will be studied across the three dimensions.

**Fall EAST1270 S01 14240 TTh 1:00-2:20(10) (L. Wang)**

**EAST 1910. Independent Study.**
Sections numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**EAST 1930. Reading and Writing of the Honors Thesis.**
Prior admission to honors candidacy required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**EAST 1940. Reading and Writing of the Honors Thesis.**
Prior admission to honors candidacy required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**EAST 1950B. Chinese Women, Gender and Feminism from Historical and Transnational Perspectives.**
This seminar course is designed to critically re-evaluate (re)presentations of Chinese women, gender, and feminism in historical, literary, and academic discourses. It examines a diverse body of texts produced through different historical periods and in different geopolitical locations. It emphasizes gender as both a historical construct(s) among competing discourses and as a material process of individual embodiment and disembodiment. The goal of the course is to help advanced students understand Chinese history from a distinctly gendered perspective, to recognize women’s roles in history and writing, and to develop a reflective, cross-cultural approach to gender, politics, and the self.

**Spr EAST1950B S01 23677 W 3:00-5:20(14) (L. Wang)**

**EAST 1950G. Market Economy, Popular Culture, and Mass Media in Contemporary China.**
Course focuses on mainland Chinese cultural and media production since the mid 1980’s, when China began transforming itself culturally and economically into a capitalist society with socialist characteristics. Traditional values, socialist legacy, commercial forces, and globalization have all played significant roles in the ongoing transformation. The goal of the course is to examine the complex interactions among diverse historical forces in a rapidly changing China. Course taught in Mandarin Chinese.

**Spr EAST1950G S01 23679 TTh 1:00-2:20(10) (L. Wang)**

**EAST 1950H. Japanese Short Fiction, Film and Anime: Reading and Translation.**
In this seminar/workshop students will read and discuss a broad range of narrative arts from the modern period, as well as practice the art of translating them in dialogue with canonical works of translation theory. Pre-requisites: JAPN 0600 or equivalent. Instructor permission required.

**Fall EAST1950H S01 16313 M 3:00-5:20(13) (S. Perry)**

**EAST 1950K. Losing Yourself in Love in Pre-Modern Chinese Poetry, Fiction and Drama.**
A seminar focused on larger-than-life loves in Chinese drama, fiction, and poetry. The course will explore how passion, feeling, and subjectivity was increasingly viewed as essential to human nature and society from the 15th century onward.
EAST 1950U. South Korean Cinema: From Golden Age to Korean Wave
This seminar explores the cinema of South Korea, proceeding chronologically and thematically, interrogating the key problematic of gender and genre. We will think about cinema’s role—as a medium for visual storytelling and as a site for producing cultural norms and values—in assessing the consequences of historical events and in helping to construct official histories. Across films from Korea's “golden age” (1950's and 60') to post-authoritarian realist cinema to the contemporary era of globalized, transnational genre films, we will map the questions, themes, and debates on the formation and effects of South Korea's cinematic imaginary of nation. Enrollment limited to 20 juniors and seniors
Spr EAST1950US01 23682 T 4:00-6:20(15) (M. Cho)

EAST 1950X. Queer Japan: Culture, History and Sexuality.
This seminar investigates cultural practices enacted by Japanese gays and lesbians, or otherwise related to same-sex attraction. How have sexual identities traditionally been constructed in Japan, and how has the modern period transformed them? How has same-sex sexuality become figured in the Japanese art, literature and popular culture of the 20th century; and how have the forces of a global LGBT culture interacted with the specific experiences of a same-sex community in Japan? This class explores questions about queer history, writing and cultural practice by looking at particular moments in the Japanese past and present
Spr EAST1950X S01 23678 M 3:00-5:20(14) (S. Perry)

EAST 1950Z. Turning East.
An exploration of pilgrimage and religious quest as it pertains to East Asia, including historical journeys to sacred sites, transformative travel experiences, and literary pilgrimages. Students learn to identify Buddhist paradigms of pilgrimage by reading classic and modern accounts by or about pilgrims, literary works inspired by imagined sites of enlightenment (the proverbial Shangri-la), and case studies of contemporary practices. Some attention to the Orientalism critique, anthropolgy of pilgrimage, and intersections with tourism. Emphasis on close reading, discussion, and analysis. A previous course in Asian culture is helpful, but not required. Counts for concentrations in East Asian Studies and Religious Studies. Enrollment limited to 20 sophomores, juniors, and seniors
Fall EAST1950Z S01 15963 W 3:00-5:20(14) (J. Sawada)

EAST 1990. Senior Reading and Research: Selected Topics.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

EAST 2450. Exchange Scholar Program.

EAST XLIST. Courses of Interest to Concentrators.
Fall 2012
East Asian Studies is a highly interdisciplinary concentration. The following courses in other departments can be taken for concentration credit. Please check the listing of the appropriate department for the time and location of each course.

History
HIST 0410 Introduction to East Asian Civilization: China
HIST 1530 Modern Korea
HIST 1973E Cities and Urban Culture in China, Past and Present
HIST 1973M Outside the Mainstream
Modern Culture and Media
MCM 1201 Gangsters, Renegades, Warriors, and Misanthropes: Violence and Sociality in Asian Genre Cinemas
Religious Studies
RELS 0120 The Foundations of Chinese Religion
RELS 0190 Japanese Religious Traditions
RELS 1441 Zen Meditation in China, Korea and Japan

Spring 2013
East Asian Studies is a highly interdisciplinary concentration. The following courses in other departments can be taken for concentration credit. Please check the listing of the appropriate department for the time and location of each course.

Comparative Literature
COLT 1420A The Tale of Genji and its Legacy
COLT 1421Q Word and Image: Ekphrasis, the Iconic Narrative, and the Graphic Novel

History
HIST 0420 Histories of East Asia: Japan
HIST 1510A China’s Late Empires

HIST 1540 Samurai and Merchants
HIST 1973J Korea: North and South
HIST 1977J Dream of the Red Chamber and Late Imperial Chinese Society

Religious Studies
RELS 0530 Lao Tzu and Tao Te Ching
RELS 1430 Classics of East Asian Buddhism

University Courses
UNIV 0540 Introduction to Contemplative Studies

Japanese

JAPN 0100. Basic Japanese.
Introduction to Japanese language. Emphasizes the attainment of good spoken control of Japanese and develops a foundation of literacy. No prerequisites. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade submitted at the end of the course work in JAPN 0200 covers the entire year and is recorded as the final grade for both semesters. The East Asian Studies department wishes to provide language instruction to all interested students. If you are unable to register for this course due to enrollment limits but are dedicated to learning Japanese, please contact the instructor via email
Fall JAPN0100 S01 14268 MWF 9:00-9:50(17) (K. Yamashita)
Fall JAPN0100 S01 14268 TTTh 9:00-10:20(17) (K. Yamashita)
Fall JAPN0100 S02 14269 MWF 10:00-10:50(17) (K. Yamashita)
Fall JAPN0100 S02 14269 TTTh 10:30-11:50(17) (K. Yamashita)
Fall JAPN0100 S03 14270 MWF 1:00-1:50(17) (K. Yamashita)
Fall JAPN0100 S03 14270 TTTh 1:00-2:20(17) (K. Yamashita)

JAPN 0200. Basic Japanese.
Introduction to Japanese language. Emphasizes the attainment of good spoken control of Japanese and develops a foundation of literacy. This is the second half of a year-long course. Students must have taken JAPN 0100 to receive credit for this course. The final grade for this course will become the final grade for JAPN 0100. If JAPN 0100 was taken for credit then this course must be taken for credit; If taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing. The East Asian Studies department wishes to provide language instruction to all interested students. If you are unable to register for this course due to enrollment limits but are dedicated to learning Japanese, please contact the instructor via email
Fall JAPN0200 S01 23690 MWF 9:00-9:50(17) (K. Yamashita)
Fall JAPN0200 S01 23690 TTTh 9:00-10:20(17) (K. Yamashita)
Fall JAPN0200 S02 23691 MWF 10:00-10:50(17) (K. Yamashita)
Fall JAPN0200 S02 23691 TTTh 10:30-11:50(17) (K. Yamashita)
Fall JAPN0200 S03 23692 MWF 1:00-1:50(17) (K. Yamashita)
Fall JAPN0200 S03 23692 TTTh 1:00-2:20(17) (K. Yamashita)

Further practice of patterns and structures of the language. Readings are introduced on aspects of Japanese culture and society to develop reading and writing skills, enhance vocabulary, and provide points of departure for conversation in Japanese. Prerequisite: JAPN 0200 or equivalent. The East Asian Studies department wishes to provide language instruction to all interested students. If you are unable to register for this course due to enrollment limits but are dedicated to learning Japanese, please contact the instructor via email
Fall JAPN0300 S01 14272 MTWThF11:00-11:50(17) (H. Tajima)
Fall JAPN0300 S02 14273 MTWThF12:00-12:50(17) (H. Tajima)

See Intermediate Japanese (JAPN 0300) for course description. Prerequisite: JAPN 0300 or equivalent. Enrollment limited to 18
Spr JAPN0400 S01 23695 MTWTh 11:00-11:50(16) (A. Nagatomi)
Spr JAPN0400 S02 23696 MTWThF12:00-12:50(16) (A. Nagatomi)

Continued practice in reading, writing, and speaking. Emphasizes the development of reading proficiency and speaking in cultural contexts. Students read actual articles and selections from Japanese newspapers. Course includes translation, with writing and discussion in Japanese. Films

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
and video tapes are shown as supplementary materials. Prerequisite: JAPN 0400 or equivalent
Fall JAPN0500 S01 14279 MWF 2:00-2:50(07) (Y. Jackson)
Fall JAPN0500 S01 14279 TTh 1:00-1:50(07) (Y. Jackson)

See Advanced Japanese (JAPN 0500) for course description
Spr JAPN0600 S01 23703 MWF 2:00-2:50(07) (Y. Jackson)
Spr JAPN0600 S01 23703 TTh 12:00-12:50(07) (Y. Jackson)

Reading of articles from Japan's press with discussion in Japanese.
Focuses on explanations and drills on the fine points in grammar and vocabulary as well as on the practice of writing in various styles. Movies and video tapes are used as supplementary materials. Prerequisite: JAPN 0600 or equivalent
Fall JAPN0700 S01 14280 TTh 2:30-3:50(11) (Y. Jackson)

JAPN 0910A. Classical Japanese.
This is an introductory course to pre-modern Japanese. It will explore the lifestyle and philosophy of samurai in 17th century Japan through reading the book, Gorin no Sho. The book comprises Miyamoto Musashi's thoughts on swordplay, winning, and mind training. The course includes reading background information in English and viewing films and dramas. Enrollment limited to 20
Fall JAPN0910A S01 15538 Th 4:00-6:20(15) (K. Yamashita)

JAPN 0920A. Business Japanese.
Designed to teach post-advanced level Japanese language, with the focus on effective oral and written communication in business situations, this course emphasizes vocabulary building in the areas of business and economics, use of formal expressions, business writing, and conversation and presentation skills, as well as familiarizing students with Japanese corporate culture, protocol, and interpersonal relationships. Prerequisite: JAPN 0700 or equivalent. Enrollment limited to 20. Instructor permission required
Spr JAPN0920A S01 23680 TTh 2:30-3:50(11) (Y. Jackson)

Introduces a linguistic analysis of Japanese language to attain an overview of structure and a foundation for understanding how grammar relates to various modes of communication. Topics include discourse analysis, pragmatics, communicative intention, communication strategies, and intercultural communication gaps. Linguistic data is drawn from films and fiction. Prerequisite: basic knowledge of Japanese grammar, vocabulary, and linguistics. Enrollment limited to 20
Spr JAPN1310 S01 25166 Th 4:00-6:20(15) (K. Yamashita)

JAPN 1910. Independent Study.
Reading materials for research in Japanese. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Korean
KREA 0100. Korean.
Begin with an introduction to the Korean writing system (Hangul) and focuses on building communicative competence in modern Korean in the four language modalities (listening, speaking, reading, writing). Provides a foundation for later work in spoken and written Korean. Six classroom hours per week. Enrollment limited to 18. This is the second half of a year-long course. Students must have taken KREA 0100 to receive credit for this course. The final grade for this course will become the final grade for KREA 0100. If KREA 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing
Fall KREA0100 S01 14281 MTWThF12:00-12:50(17) (M. Chun)
Fall KREA0100 S02 16535 TTh 11:00-11:50(17) (M. Chun)
Fall KREA0100 S02 16535 MWF 11:00-11:50(17) (M. Chun)

KREA 0200. Korean.
Begin with an introduction to the Korean writing system (Hangul) and focuses on building communicative competence in modern Korean in the four language modalities (listening, speaking, reading, writing). Provides a foundation for later work in spoken and written Korean. Six classroom hours per week. Enrollment limited to 18. This is the second half of a year-long course. Students must have taken KREA 0100 to receive credit for this course. The final grade for this course will become the final grade for KREA 0100. If KREA 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing
Fall KREA0200 S01 25622 MWF 11:00-11:50(04) (M. Chun)
Spr KREA0200 S02 25622 TTh 9:00-9:50(04) (M. Chun)

KREA 0500. Advanced Korean.
Aims to help students develop an advanced level of communicative competence, with special focus on enhancing their reading comprehension, essay writing, and discourse (discussion and presentation) skills. Authentic reading materials from a variety of sources will be used to introduce various topics and issues pertaining to Korean society and culture, thus students' cultural understanding will also be enhanced. Prerequisite: KREA 0400 or equivalent or permission of instructor
Fall KREA0500 S01 15154 MWF 11:00-11:50(04) (H. Wang)

KREA 0600. Advanced Korean.
See Advanced Korean (KREA 0500) for course description. Prerequisite: KREA 0500 or equivalent or permission of instructor
Spr KREA0600 S01 26055 MWF 11:00-11:50(04) (H. Wang)

KREA 0910B. Media Korean.
Develop linguistic competence in Korean and deepen cultural understanding through exposure to a variety of media sources both print and visual. Built on the Content-based Instruction model and Genre-based Approach. Discuss current Korean affairs and core issues of culture based on assigned materials. Develop reading and listening comprehension skills through pre-class activities, oral proficiency through in-class discussion and presentation, and writing proficiency through assigned essays, in addition to engaging in various integrative tasks. Tuesday classes will focus on comprehending the text and source materials. Thursday classes will focus on related tasks and activities. Enrollment limited to 20. Conducted entirely in Korean
Fall KREA0910BS01 14958 TTh 10:30-11:50(09) (H. Wang)

KREA 1910. Independent Study.
Reading materials for research in Korean. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Economics
ECON 0110. Principles of Economics.
Extensive coverage of economic issues, institutions, and vocabulary, plus an introduction to economic analysis and its application to current social problems. Required for all economics concentrators. Prerequisite for ECON 1110, 1130, 1210 and 1620. Serves as a general course for students who will take no other economics courses and want a broad introduction to the discipline. Weekly one-hour conference required (conferences are not held during the summer session)
Fall ECON0110 S01 15099 MWF 9:00-9:50(02) (R. Friedberg)
Spr ECON0110 S01 24446 MWF 10:00-10:50(03) (R. Friedberg)

A course designed primarily for students who do not plan to concentrate in economics but who seek a basic understanding of the economics of less developed countries, including savings and investment, health and education, agriculture and employment, and interactions with the world economy, including trade, international capital flows, aid, and migration. Prerequisite: ECON 0110. Enrollment limited to 100
Spr ECON0510 S01 25527 MWF 12:00-12:50(05) "To Be Arranged"

Basic accounting theory and practice. Accounting procedures for various forms of business organizations

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Fall  ECON0710  S01  15145  MW  6:00-7:20(18)  (F. Sciuto)
Fall  ECON0710  S02  15146  TTh  6:00-7:20(14)  (T. Lonardo)
Spr  ECON0710  S01  24468  MW  6:00-7:20(18)  (F. Sciuto)
Spr  ECON0710  S02  24470  TTh  6:00-7:20(12)  (T. Lonardo)

ECON 1110. Intermediate Microeconomics
Tools for use in microeconomic analysis, with some public policy applications. Theory of consumer demand, theories of the firm, market behavior, welfare economics, and general equilibrium. Prerequisite: MATH 0060, 0070, 0090, 0100, 0170, 0180, 0190, 0200, or 0350; and ECON 0110; or advanced placement

Fall  ECON1110  S01  15144  MWF  1:00-1:50(06)  (S. Kuo)
Fall  ECON1110  S02  15147  TTh  9:00-10:20(08)  (M. Gradstein)
Fall  ECON1110  S03  15148  MWF  8:00-8:50(01)  (A. Serrano)
Spr  ECON1110  S01  24471  TTh  9:00-10:20(08)  (G. DeClippel)
Spr  ECON1110  S02  24472  MWF  9:00-9:50(02)  (A. Serrano)
Spr  ECON1110  S03  24473  TTh  6:00-7:20(12)  'To Be Arranged'

ECON 1130. Intermediate Microeconomics (Mathematical).
Microeconomic theory: Theories of the consumer and firm, competitive equilibrium, factor markets, imperfect competition, game theory, welfare economics, general equilibrium. May not be taken in addition to ECON 1110. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350; and ECON 0110; or advanced placement

Spr  ECON1130  S01  24474  TTh  10:30-11:50(09)  (N. Baum-Snow)

ECON 1185. The Welfare State.
The course will include analyses of Health Care, Social Security, Medicare, Medicaid, Immigration Control, and Environmental Control. The focus will be on the extent to which the programs meet their goals without straining the federal budget. Both existing and alternative programs will be evaluated in terms of costs, benefits, as well as their present and future demands on tax revenue and user fees. Prerequisite: ECON 1110 and 1620. Enrollment limited to 30 senior concentrators in Economics, Mathematical Economics, Applied Math-Economics, Computer Science Economics, and COB

Fall  ECON1185  S01  15138  MWF  9:00-9:50(02)  (G. Borts)

ECON 1210. Intermediate Macroeconomics.
The economy as a whole: Level and growth of national income, inflation, unemployment, role of government policy. Prerequisite: MATH 0060, 0070, 0090, 0100, 0170, 0180, 0190, 0200, or 0350; and ECON 0110

Fall  ECON1210  S01  15160  TTh  9:00-10:20(08)  (P. Howitt)
Fall  ECON1210  S02  15161  MWF  10:00-10:50(03)  (G. Olds)
Spr  ECON1210  S01  24475  TTh  9:00-10:20(15)  (S. Michalopoulos)
Spr  ECON1210  S02  24476  TTh  10:30-11:50(18)  (S. Michalopoulos)
Spr  ECON1210  S03  25776  MWF  5:30-6:50(18)  (M. Fiszbein)

This is an advanced macroeconomics senior seminar course for undergraduate students. The course is concerned with macroeconomic policy in the United States, with special focus on the recent economic crisis. The main objective of the course is to introduce students to the type of models and methods used in current research in macroeconomics both in the scholarly literature but also in the practice of central banks and major policy institutions. Events of the financial crisis and the economic recession of 2007-2009 will serve to illustrate the challenges confronted by macroeconomic analysis. Prerequisites: ECON 1110 or 1130; and MATH 0090. Enrollment limited to 30

Spr  ECON1225  S01  25705  M  1:00-3:20(06)  'To Be Arranged'

ECON 1301. Economics of Education I.
This course teaches students how to use microeconomics to analyze a broad array of education policy issues. The departure of this course from ECON 1110 is the emphasis on studying microeconomics in applied settings, and in particular, using microeconomic concepts to think about, analyze, and solve policy questions in education. Prerequisite: ECON 1110

Fall  ECON1301  S01  16043  MWF  12:00-12:50(12)  (J. Tyler)

ECON 1305. Economics of Education: Research.
This course will cover academic research in the Economics of Education. Topics include production of student achievement, measuring student achievement, funding of public education, and school choice and school vouchers. Prerequisites: ECON 1110, and ECON 1620 or 1630. Enrollment limited to 25 juniors, seniors, and graduate students

Spr  ECON1305  S01  24488  TTh  10:30-11:50(09)  (J. Hastings)

ECON 1310. Labor Economics.
Labor supply, human capital, income inequality, discrimination, immigration, unemployment. Prerequisite: ECON 1110 or 1130; and 1620 or 1630. Enrollment limited to 100

Spr  ECON1310  S01  24479  TTh  1:00-2:20(10)  (K. Chay)

Interested students must register for ENVS 1350 S01 (CRN 14886)

ECON 1355. Economics of the Environment in Developing Countries (ENVS 1355).
Interested students must register for ENVS 1355 S01 (CRN 24188)

ECON 1370. Race and Inequality in the United States.
We examine racial inequality in the United States, focusing on economic, political, social and historical aspects. Topics include urban poverty, employment discrimination, crime and the criminal justice system, affirmative action, immigration, and low wage labor markets. Black/white relations in the US are the principle but not exclusive concern. Prerequisite: ECON 1110 or 1130. Enrollment limited to 25

Fall  ECON1370  S01  15572  MW  8:30-9:50(02)  (G. Loury)

ECON 1410. Urban Economics.
The first part of the course covers the set of conceptual and mathematical models widely used to understand economic activity both between and within cities. The second part of the course examines various urban policy issues including urban transportation, housing, urban poverty, segregation and crime. The course makes extensive use of empirical evidence taken primarily from the United States. Prerequisites: ECON 1110 or 1130, and ECON 1620 or 1630. Enrollment limited to 100

Spr  ECON1410  S01  24477  TTh  2:30-3:50(11)  (N. Baum-Snow)

Positive and normative study of the organizations that comprise and the institutional structures that characterize a modern mixed market economy. Theoretical efficiency and potential limitations of private enterprises and markets including (a) why some market actors are organizations (e.g., companies), (b) effort elicitation problems in organizations, (c) the problem of cooperation in traditional versus behavioral economics, and (d) alternative kinds of organization (including proprietorships, corporations, nonprofits, government agencies). Roles of government, and problems of government failure, including the collective action problem of democracy. State-market balance and contemporary controversies over the economic system in light of the 2008 financial crisis. Enrollment limited to 100 juniors and seniors. Prerequisite: ECON 1110 or 1130

Spr  ECON1450  S01  25558  MWF  11:00-11:50(04)  (L. Putterman)

ECON 1460. Industrial Organization.
A study of industry structure and firm conduct and its economic/antitrust implications. Theoretical and empirical examinations of strategic firm interactions in oligopolistic markets, dominant firm behaviors, and entry deterrence by incumbents. Also economics of innovation: research and development activities and government patent policies. Prerequisite: ECON 1110 or 1130. Some knowledge of calculus required. Enrollment limited to 100

Fall  ECON1460  S01  15152  TTh  9:00-10:20(08)  (L. Fainmesser)

This course studies the design of organized markets, focusing on efficient organization and the incentives created by market rules. The analysis relies on a mix of documenting the rules of real-world markets, game theoretic analysis, empirical analysis, and experimental work. Applications include: online auction markets (e.g., eBay, Amazon); ad auctions (e.g., Google); matching markets, including matching students to schools, matching workers to jobs (e.g., medical residents to hospitals, lawyers to clerkship positions), matching kidney donors to recipients, and online dating. Prerequisites: ECON 1110 or 1130; MATH 0060, 0070, 0090, 0100, 0170, 0180, 0190, 0200, or 0350; or instructor permission. Enrollment limited to 25 juniors, seniors, and graduate students

Fall  ECON1465  S01  15153  W  3:00-5:20(14)  (L. Fainmesser)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Bargaining theory is emerging as an important area within the general rubric of game theory. Emphasis is on providing a relatively elementary version of the theory in order to make it accessible to a large number of students. Covers introductory concepts in game theory, strategic and axiomatic theories of bargaining and their connections, applications to competitive markets, strikes, etc. Prerequisite: ECON 1110 or 1130. Enrollment limited to 100
Fall ECON1470 S01 15150 TTh 1:00-2:20(10) (P. Dal Bo)

ECON 1480. Public Economics
An analysis of the role of government in the allocation of resources. Topics include welfare economics (a review), problems of social choice, the evaluation of public expenditures, and taxation. Prerequisite: ECON 1110 or 1130
Spr ECON1480 S01 24493 TTh 2:30-3:50(11) (B. Knight)

The course looks at the economics of social security reform with particular focus on possible policy responses to the increasing fraction of the population that is elderly in OECD countries. Among the topics that will be considered are pay as you go funding, defined benefits versus defined contributions, privatization, labor market effects of pensions, retirement decisions, labor supply by couples, and macroeconomic effects. Prerequisite: ECON 1110. Enrollment limited to 30. Not open to first-year students
Fall ECON1485 S01 15196 W 3:00-5:20(14) (E. Sheshinski)

ECON 1500. Current Global Macroeconomic Challenges.
Analysis of current economic challenges in the U.S. and China. Topics include fiscal and monetary policies, international trade, capital flows and exchange rate policy, and policies for long-run growth. Emphasis on macroeconomic policies in China and the U.S., including their global impact. Prerequisites: ECON 1210. Also recommended: ECON 1550 and 1850. Enrollment limited to 100
Spr ECON1500 S01 25494 TTh 6:30-7:50(12) (D. Wyss)

ECON 1510. Economic Development.
The economic problems of less developed countries and the theory of economic development, with emphasis on the roles played by agriculture, industry, and foreign trade. Also: education, health, employment and migration; capital accumulation; income distribution; institutional aspects; the role of price distortions; trade policies; social discount rates, investment criteria, and the general issue of state intervention. Prerequisite: ECON 1110 or 1130, and ECON 1620 or 1630. Enrollment limited to 100
Spr ECON1510 S01 24676 TTh 10:30-11:50(09) (A. Sautmann)

ECON 1520. The Economic Analysis of Institutions.
This course deals with the economic analysis of institutions, with a focus on developing countries. The first section covers institutions in traditional agrarian societies. Topics include consumption smoothing and the organization of land, labor and credit markets. The second section focuses on the role of the community in facilitating economic activity. Institutions include cooperatives, networks, marriage and the family. Prerequisites: ECON 1110 or 1130; and ECON 1620 or 1630; or equivalent
Fall ECON1520 S01 15186 TTh 10:30-11:50(09) (K. Munshi)

ECON 1530. Health, Hunger and the Household in Developing Countries.
Microeconomic analysis of household behavior in low income societies emphasizing the economic determinants of health and nutrition and the evaluation of policy. The relationship among health, nutrition, fertility, savings, schooling, labor productivity, wage determination, and gender-based inequality. Emphasizes theoretically-based empirical research. Prerequisite: ECON 1110 or 1130. Enrollment limited to 100
Spr ECON1530 S01 24487 MW 8:30-9:50(09) (A. Foster)

ECON 1540. International Trade.
Theory of comparative advantage, trade, and income distribution. Welfare analysis of trade: gains from trade, evaluation of the effects of trade policy instruments-tariffs, quotas, and subsidies. Trade under imperfect competition. Strategic trade policy. Trade, labor markets, preferential trade agreements, and the world trading systems. Prerequisite: ECON 1110 or 1130. Enrollment limited to 100
Fall ECON1540 S01 15140 TTh 2:30-3:50(03) (O. Galar)

ECON 1550. International Finance.
The balance of payments; identification and measurement of surpluses and deficits; international monetary standards; the role of gold and paper money; government policies; free versus fixed exchange rates; international capital movements; war and inflation; the International Monetary Fund. Prerequisite: ECON 1210. Enrollment limited to 100
Spr ECON1550 S01 24478 MWF 1:00-1:50(06) (G. Borts)

ECON 1560. Economic Growth.
A theoretical and empirical examination of economic growth and income differences among countries. Focuses on both the historical experience of countries that are currently rich and the process of catch-up among poor countries. Topics include population growth, accumulation of physical and human capital, technological change, natural resources, income distribution, geography, government, and culture. Prerequisite: ECON 1110 or 1130; and MATH 0060, 0070, 0090, 0100, 0170, 0180, 0190, 0200 or 0350. Enrollment limited to 100
Fall ECON1560 S01 15197 MWF 11:00-11:50(04) (D. Weil)

ECON 1590. The Economy of China since 1949.
This course examines the organization, structure, and performance of the economy of mainland China, with a focus on urban and regional development. The course analyzes the changing economic system including the roles of planning and markets and government economic strategy and policies. The pre-reform period (1949-78) receives attention in its own right, but especially as it influences developments in the market-oriented reform period since 1978. Topics covered include rural and urban development, industrialization and FDI, housing and land markets, rural-urban migration, income inequality and growth, and the evolving spatial structure of cities. Both analytical and descriptive methods are used. Prerequisite: ECON 1110 or 1130. ECON 1210 and 1410 are helpful but not required
Spr ECON1590 S01 24490 TTh 2:30-3:50(11) (J. Henderson)

ECON 1620. Introduction to Econometrics.
Probability and statistical inference. Estimation and hypothesis testing. Simple and multiple regression analysis. Applications emphasized. Prerequisite: ECON 0110. Weekly one-hour computer conference required
Fall ECON1620 S01 15175 MWF 1:00-1:50(06) (S. Centorrino)
spr ECON1620 S01 24499 MWF 2:00-2:50(07) (B. Melly)

This class will cover the basics of applied research in economics. We will cover how we use economic theory to formulate a hypothesis to test and how we use data to test our hypothesis. As part of the coursework, students will be exposed to topics across multiple fields of applied economic research (eg, health, labor, political economy, urban economics, development, etc) that can be explored in greater detail in more advanced classes. Students will read and discuss papers published in professional journals and perform data analysis as part of the course requirements. Prerequisites: ECON 1110 and 1620
Fall ECON1629 S01 15440 TTh 10:30-11:50(09) (A. Aizer)
Spr ECON1629 S01 25557 MW 8:30-9:50(02) (R. Friedberg)

ECON 1630. Econometrics I.
Advanced introduction to econometrics with applications in finance and economics. How to formulate and test economic questions of interest. The multivariate linear regression model is treated in detail, including tests of the model’s underlying assumptions. Other topics include: asymptotic analysis, instrumental variable estimation, and likelihood analysis. Convergence concepts and matrix algebra are used extensively. Prerequisites: ECON 1110 or 1130; and APMA 1650, MATH 1620, or ECON 1620; or equivalent
Fall ECON1630 S01 15163 MW 8:30-9:50(02) (F. Kleibergen)
Fall ECON1630 S01 15163 M 8:30-9:50(02) (F. Kleibergen)
Spr ECON1630 S01 24492 MW 2:00-2:50(07) (A. McCloskey)

ECON 1640. Econometrics II.
Continuation of ECON 1630 with an emphasis on econometric modeling and applications. Includes applied topics from labor, finance, and macroeconomics. Prerequisite: ECON 1630. Enrollment limited to 100
Fall ECON1640 S01 15947 MWF 2:00-2:50(07) (A. McCloskey)
ECON 1650. Financial Econometrics. Financial time series, for example, asset returns, options and interest rates, possess a number of stylized features that are analyzed using a specific set of econometric models. This course deals with an introduction to such models. It discusses time series models for analyzing asset returns and interest rates, (GARCH) models to explain volatility, models to explain extreme events which are used for the Value at Risk and models for options prices. Prerequisite: ECON 1630 or instructor permission. Enrollment limited to 100.

Spr ECON1650 S01 24497 TTh 1:00-2:20(10) (E. Renault)

ECON 1710. Investments I. The function and operation of asset markets; the determinants of the prices of stocks, bonds, options, and futures; the relations between risk, return, and investment management; the capital asset pricing model, normative portfolio management, and market efficiency. Prerequisite: ECON 1110 or 1130; and ECON 1620 or 1630 or APMA 1650.

Fall ECON1710 S01 15222 MWF 10:00-10:50(03) (S. Ko)
Fall ECON1710 S02 15395 MWF 2:00-2:50(07) (D. Brenner)
Spr ECON1710 S01 24507 MWF 11:00-11:50(04) (S. Ko)

ECON 1720. Corporate Finance. A study of theories of decision-making within corporations, with empirical evidence as background. Topics include capital budgeting, risk, securities issuance, capital structure, dividend policy, compensation policy, mergers and acquisitions, real options, financial engineering, securitization. Prerequisite: ECON 1110 or 1130; and ECON 1620 or 1630 or APMA 1650.

Fall ECON1720 S01 15223 MWF 1:00-1:50(06) (D. Brenner)
Spr ECON1720 S01 24509 MWF 2:00-2:50(07) (D. Brenner)
Spr ECON1720 S02 24510 MWF 12:00-12:50(17) (D. Brenner)

ECON 1750. Investments II. Individual securities: forwards, futures, options and basic derivatives, pricing conditions. Financial markets: main empirical features, equity premium and risk-free rate puzzles, consumption based asset pricing models, stock market participation, international diversification, and topics in behavioral finance. Prerequisites: ECON 1110 or 1130; ECON 1620 or 1630; or APMA 1650; ECON 1710. Enrollment limited to 100.

Fall ECON1750 S01 16050 TTh 2:30-3:50(11) (A. Yasuhara)

ECON 1760. Financial Institutions. This course analyzes the role of financial institutions in allocating resources, managing risk, and exerting corporate governance over firms. After studying interest rate determination, the risk and term structure of interest rates, derivatives, and the role of central banks, it takes an international perspective in examining the emergence, operation, and regulation of financial institutions, especially banks. Prerequisites: ECON 1110 and 1210, or 1130. Enrollment limited to 100.

Fall ECON1760 S01 15166 TTh 1:00-2:20(10) (D. Wyss)

ECON 1770. Fixed Income Securities. The fixed income market is much larger than the stock market in the U.S. Topics covered in this course include basic fixed income securities, term structure, hedging interest rate risk, investment strategies, fixed income derivatives, mortgage-backed securities and asset-backed securities. Prerequisite: ECON 1110 or 1130, and ECON 1620 or 1630 or APMA 1650, and ECON 1710 or 1720. Enrollment limited to 100.

Spr ECON1770 S02 25387 TTh 4:00-5:20(15) (D. Wyss)

ECON 1780. Corporate Strategy. This course teaches analysis of strategic decisions facing an organization. We cover traditional strategy topics such as capabilities and sustainability as well as modern game theory models of competition. A central integrating idea is anticipating the response of other actors in the economy and recognizing that often an organization’s profits depend on the actions of other firms. Prerequisites: ECON 1110 or 1130; ECON 1620 or 1630; ECON 1720 (EC 111 or 113; EC 162 or 163; EC 172)

Spr ECON1780 S01 25528 MW 6:00-7:20(16) (T. Nguyen)

ECON 1790. Corporate Governance and Management. A corporation’s economic success depends on access to human capital and other resources, effective management of these resources, and a governance system that ensures effective decision making. The course offers policy prescriptions in economic incentives and regulatory rules that attempt to align management with investors. Prerequisites: ECON 1110 or 1130, ECON 1620 or 1630; or APMA 1650; ECON 1720; ECON 0710. Enrollment limited to 40.

Fall ECON1790 S01 16520 W 6:00-8:20PM(18) (T. Nguyen)

ECON 1870. Game Theory and Applications to Economics. Study of the elements of the theory of games. Non-cooperative games. Repeated games. Cooperative games. Applications include bargaining and oligopoly theory. Prerequisites: ECON 1110 or 1130; and MATH 0100, or 0170, or 0180, or 0190, or 0200, or 0350; and ECON 1620 or 1630 or APMA 1650, or MATH 1610. Enrollment limited to 100.

Spr ECON1870 S01 24481 TTh 1:00-2:20(10) (G. DeCipelli)

ECON 1940. Current Economic Research: Undergraduate Seminar. The purpose of this seminar is to bring to the undergraduates concentrating in economics, applied math-economics, mathematical economics and computer science-economics a taste of the first-rate research that is being done in the economics department at Brown. Prerequisites: ECON 1110 or 1130; ECON 1210; ECON 1620. Enrollment limited to 30.

Spr ECON1940 S01 25559 T 12:00-2:20(10) (R. Serrano)

ECON 1960. Honors Tutorial for Economics Majors. Students intending to write an honors thesis in economics must register for this class. The goal is to help students with the process of identifying and defining feasible topics, investigating relevant background literature, framing hypotheses, and planning the structure of their thesis. Each student must find a thesis advisor with interests related to their topic and plan to enroll in ECON 1970 during the final semester of senior year.

Fall ECON1960 S01 15141 TTh 10:30-11:50(09) (K. Chay)

ECON 1970. Independent Research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.


Fall ECON2010 S01 15185 MW 9:00-10:20(02) (A. Sautmann)

ECON 2020. Applied Economics Analysis. This course provides students with skills needed to integrate economic theory, econometric methods, and data management in the analysis of economic problems. Provides a hands-on perspective including assignments designed to derive testable propositions from simple economic models, illustrate the loading, cleaning and merging of complex survey data, and provide experience in the selection and interpretation of basic econometric methods.

Spr ECON2020 S01 24483 TTh 1:00-2:20(10) (A. Sautmann)

ECON 2030. Introduction to Econometrics I. The probabilistic and statistical basis of inference in econometrics.

Fall ECON2030 S01 15183 TTh 9:00-10:20(08) (E. Renault)

ECON 2040. Econometric Methods. Applications of mathematical statistics in economics. The nature of economic observations, cross-section and time series analysis, the analysis of variance and regression analysis, problems of estimation.

Spr ECON2040 S01 24484 MW 10:30-11:50(03) (B. Mely)

ECON 2050. Microeconomics I. Decision theory; consumer and producer’s theory; general competitive equilibrium and welfare economics: the Arrow-Debreu-McKenzie model; social choice and implementation.

Fall ECON2050 S01 15184 MW 10:30-11:50(03) (R. Serrano)

ECON 2060. Microeconomics II. Economics of imperfect information: expected utility, risk and risk aversion, optimization under uncertainty, moral hazard, and self-selection problems. Economics of imperfect competition: monopoly; price discrimination; monopolistic competition; market structure in single shot, repeated and stage games; and vertical differentiation.

Spr ECON2060 S01 24485 MW 8:30-9:50(02) (G. Loury)

ECON 2070. Macroeconomics I. Consumption and saving, under both certainty and uncertainty; theory of economic growth; real business cycles; investment; and asset pricing.
implications of "psychologically richer" models on market behavior
perceive and analyze economic environments, and that they reason about
decision makers' behavior beyond simple, material self-interest; (ii)
takes two forms: (i) broadening the set of considerations that affect
decision makers' behavior beyond simple, material self-interest; (ii)
relaxing the standard assumption that agents have unlimited ability to
perceive and analyze economic environments, and that they reason about
uncertainty as "Bayesian statisticians". Special emphasis will be put on the
implications of "psychologically richer" models on market behavior

This course is about the challenges that economic theorists face in their quest for economic models in which decision makers have a "richer psychology" than prescribed by textbook models. The enrichment takes two forms: (i) broadening the set of considerations that affect decision makers' behavior beyond simple, material self-interest; (ii) relaxing the standard assumption that agents have unlimited ability to perceive and analyze economic environments, and that they reason about uncertainty as "Bayesian statisticians". Special emphasis will be put on the implications of "psychologically richer" models on market behavior.

ECON 2190E. Topics in Economics: Economics and Psychology.

This course is about the challenges that economic theorists face in their quest for economic models in which decision makers have a "richer psychology" than prescribed by textbook models. The enrichment takes two forms: (i) broadening the set of considerations that affect decision makers' behavior beyond simple, material self-interest; (ii) relaxing the standard assumption that agents have unlimited ability to perceive and analyze economic environments, and that they reason about uncertainty as "Bayesian statisticians". Special emphasis will be put on the implications of "psychologically richer" models on market behavior.

ECON 2190F. Topics in Microeconomic Theory: Social and Economic Networks.

Synthesis of research on social and economic networks by sociologists, economists, computer scientists, physicists, and mathematicians, with an emphasis on modeling. Includes methods for deducing and measuring networks, empirical observations about network structure, models of random and strategic network formation, as well as analyses of contagion, diffusion, learning, peer influence, games played on networks, and networked markets. Prerequisites: ECON 2010, 2030, 2050, and 2060 Spr ECON2190FS01 24670 W 9:00-11:10(02) (I. Fainmesser)

ECON 2320. Economics of Labor and Population.

This course examines identification issues in empirical microeconomics. Focus on the sensible application of econometric methods to empirical problems in economics and policy research -- particularly labor and population economics. The course examines issues that arise when analyzing non-experimental data and provides a guide for tools that are useful for applied research. The course also emphasizes how a basic understanding of theory and institutions can help inform the analysis. By the end of the course, students should have a firm grasp of the types of problems in economics and policy research that can be addressed using microeconomic methods.

Fall ECON2320 S01 15142 TTh 1:00-2:20(10) (K. Chay)

ECON 2360. Economics of Health and Population.

An introduction to current research in the economics of health and population. Focuses on studies of empirically-tractable and tested models of individual, household, and firm behaviors and how these behaviors interact through markets and other institutions. Among the subjects considered are the economics of fertility and marriage, the operation of the health services sector, and the implications of population aging.

Fall ECON2360 S01 15136 T 3:00-5:20(11) (A. Aizer)

ECON 2370. Inequality: Theory and Evidence.

This course uses economic theory to study the problems of inequality. The emphasis is two-fold: (1) to explain persistent resource disparities between individuals or social groups; and, (2) to assess the welfare effects of various equality-promoting policies. Topics include racial stereotypes, residential segregation, distributive justice, incentive effects of preferential policies, dysfunctional identity, and endogenous inequality due to the structure of production and exchange.

Spr ECON2370 S01 24495 M 1:00-3:20(06) (G. Louy)

ECON 2410. Urbanization.

The first part of the course covers social interactions, productivity spillovers, systems of cities models, urban growth, and rural-urban migration. The second part of the course covers topics such as durable housing, land market regulation and exclusion, and local political economy. Besides covering basic theoretical models, emphasis is placed on working through recent empirical papers on both the USA and developing countries. Prerequisites: ECON 2050 and 2060 Spr ECON2410 S01 24491 TTh 10:30-11:50(09) (J. Henderson)

ECON 2420. The Structure of Cities.

This course covers standard urban land use theory, urban transportation, sorting across political jurisdictions, hedonics, housing, segregation and crime. Empirical examples are taken primarily from the United States. After taking the course, students will have an understanding of standard urban theory and of empirical evidence on various important applied urban topics. In addition, students will gain practical experience in manipulating spatial data sets and simulating urban models.

Fall ECON2420 S01 15137 TTh 9:00-10:20(08) (N. Baum-Snow)

ECON 2450. Exchange Scholar Program.

ECON 2470. Industrial Organization.

Monopolistic competition, market structure and entry, nonprice competition, economics of information
Spr ECON2470 S01 24489 T 1:00-3:20(10) (J. Hastings)

ECON 2480. Public Economics.

Theoretical and empirical analysis of the role of government in private economies. Topics include welfare economics, public goods, externalities, income redistribution, tax revenues, public choice, and fiscal federalism.

Fall ECON2480 S01 15165 MW 10:30-11:50(03) (B. Knight)

ECON 2510. Economic Development I.

This course covers issues related to labor, land, and natural resource markets in developing countries, in partial and general equilibrium settings. Topics covered include: The agricultural household model, under complete and incomplete market assumptions; household and individual labor supply, migration, self-employment, and the informal sector; rental market prices and sharecropping arrangements; and environmental externalities (e.g., pollution, water usage, etc.), and sustainable development.

Spr ECON2510 S01 24496 TTh 2:30-3:50(11) (S. Nagavara)

ECON 2520. Economic Development II.

This course deals with the economic analysis of institutions, with a particular focus on community-based institutions in developing countries. Institutions covered in this course includes cooperatives, ROSCAs, networks, marriage and the family.

Fall ECON2520 S01 15187 TTh 2:30-3:50(11) (K. Munshi)

ECON 2530. Behavioral and Experimental Economics.

An introduction to the methodology of experimental economics with an emphasis on experiments designed to illuminate problems in organizational design and emergence of institutions, and experiments investigating the operation of social and social-psychological elements of preference such as altruism, inequality aversion, reciprocity, trust, concern for relative standing, envy, and willingness to punish norm violators. Experiments studied will include ones based on the prisoners' dilemma, dictator game, ultimatum game, and especially the voluntary contribution mechanism (public goods game) and the trust game.

Fall ECON2530 S01 15188 MWF 11:00-11:50(04) (L. Putterman)

ECON 2640. Microeconometrics.

Topics in microeconometrics treated from a modern Bayesian perspective. Limited and qualitative dependent variables, selectivity bias, duration models, panel data
Fall ECON2640 S01 15164 MW 1:00-2:20(06) (F. Kleibergen)


Method of Moments (GMM) and Empirical Likelihood (EL). Kernel methods for density and regression estimation. Optimal instruments and local EL. Applications to non-linear time series models, Euler equations and asset pricing.
Spr ECON2660 S01 25388 M 1:00-3:20(06) (E. Renault)

ECON 2830. Dynamic Optimization and Economic Growth.

The role of human capital, income distribution, population growth, technological progress, and international trade in the determination of differences in growth performance across countries. Inequality and

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ECON 2840. Empirical Analysis of Economic Growth.
Examines economic growth, focusing on the effects of technological change, fertility, income inequality, and government policy. ECON 2830 is strongly recommended
Spr ECON2840 S01 24498 F 1:00-2:20(03) (D. Weil)
Spr ECON2840 F 10:30-11:50(03) (D. Weil)

ECON 2890A. Topics in Macroeconomics, Development and Trade.
This is a graduate class that covers selected topics at the intersection of macroeconomics, economic development and trade. The leading theme of the class will be the determinants of the observed cross-country differences in income per capita and growth rates. We will start by reviewing aggregate theories, prominently the neoclassical growth model and endogenous growth models, focusing on their successes and pitfalls. We will then move to non-aggregate theories, placing special emphasis on theories of financial frictions. At this point, we will spend some time studying the stochastic growth model with partially uninsured idiosyncratic risk
Spr ECON2890A/S01 25708 T 1:00-3:20(10) (J. Blaum)

ECON 2930. Workshop in Applied Economics.
No description available
Fall ECON2930 S01 15225 Th 4:00-5:30(15) (K. Chay)
Spr ECON2930 S01 24515 Th 4:00-5:30(15) (A. Sautmann)

ECON 2950. Workshop in Econometrics.
No description available
Fall ECON2950 S01 15226 T 4:00-5:30(15) (F. Kleibergen)
Spr ECON2950 S01 24516 T 4:00-5:30(15) (F. Kleibergen)

ECON 2960. Workshop in Macroeconomics and Related Topics.
No description available
Fall ECON2960 S01 15227 W 4:00-5:30(14) (S. Michalopoulos)
Spr ECON2960 S01 24517 W 4:00-5:30(14) (D. Weil)

ECON 2970. Workshop in Economic Theory.
No description available
Fall ECON2970 S01 15228 M 4:00-5:30(13) (G. DeClippel)
Spr ECON2970 S01 24518 M 4:00-5:30(13) (I. Fainmesser)

ECON 2980. Reading and Research.
Individual research projects. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

ECON 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

Education
EDUC 0400. The Campus on Fire: American Colleges and Universities in the 1960's.
Ole Miss, Berkeley, Columbia, and Kent State: just a few of the campus battlegrounds where conflicts over civil rights, the Vietnam War, and other major issues were fought in the 1960’s. Students consult primary and secondary sources about higher education’s role in these conflicts, and why the consequences of its involvement still linger today. Enrollment limited to 20 first year students. FYS WRIT
Fall EDUC0400 S01 15485 MWF 2:00-2:50(07) (L. Spohrer)

EDUC 0410E. Empowering Youth: Insights from Research on Urban Adolescents.
Together, we consider the design, analysis, and interpretation of research on youth in urban settings. In doing so, we examine the roles of power, privilege, and multiculturalism in research. In the experiential component of the course, students engage in fieldwork in a local school or community-based youth organization. As part of their fieldwork, students design and undertake a research project, thereby bridging theory with practice. Reserved for First Year students. Enrollment limited to 20 first year students. Instructor permission required. FYS DVPS WRIT
Spr EDUC0410ES01 24866 W 3:00-5:20(14) (D. Rivas)
Spr EDUC0410ES02 25676 Arranged (D. Rivas)

EDUC 0850. History of Intercollegiate Athletics.
This team-taught course traces the changing place of intercollegiate athletics on the American college campus over the past 150 years. Topics examined include, among others, the historical relationship between academic and athletic pursuits; commercialization and professionalization; the role of the NCAA and of the media; the cult of the coach; and the significance of race, gender, and class. Emphasis on critical reading, active participation in discussion, and developing research and writing skills. The course will meet twice weekly, sometimes as a whole and sometimes in smaller groups, to discuss readings, films, and guest presentations. Enrollment limited to 30
Spr EDUC0850 S01 24857 TTh 10:30-11:50(09) (L. Spohrer)

EDUC 0900. Fieldwork and Seminar in Secondary Education.
Combines study of current educational issues with extensive fieldwork that allows the student to observe how these issues translate themselves into reality on a daily basis. Each student reads and discusses recent writing about educational history, theory, and practice, and observes a class in a local school for 32 hours. The final paper synthesizes reading and observations
Fall EDUC0900 S01 15490 M 3:00-5:20(13) (D. Bisaccio)

EDUC 1010. The Craft of Teaching.
What is the "craft of teaching"? A wide variety of texts are used to investigate the complexity of teaching and learning. Considering current problems as well as reform initiatives, we examine teaching and learning in America from the perspectives of history, public policy, critical theory, sociology, and the arts. Weekly journals and reading critiques; final portfolio presented to the class
Fall EDUC1010 S01 15497 Th 4:00-6:20(15) (B. Fong)

EDUC 1020. The History of American Education.
This course is an introduction to the history of American education with an emphasis on K-12 public schooling. Using primary and secondary sources, we will explore the development of public schools and school systems, debates over aims and curriculum, conflicts over school governance and funding, and struggles for equity and inclusion over time. We will analyze the relationship between schooling, capitalism, and democracy. Finally, in exploring how different generations have defined and tried to solve educational dilemmas, we’ll consider how this history might help us approach education today
Fall EDUC1020 S01 15487 TTh 10:30-11:50(09) (T. Steffes)

EDUC 1030. Comparative Education.
National systems of formal education, over the past two centuries, have proliferated massively. International organizations, governmental and nongovernmental, have long promoted the universal provision of mass education as central goals in modern ways of life. At the same time, the way children are raised, and the kinds of adults they become, varies considerably. Comparative education seeks to explore this interplay of variety and uniformity. Enrollment limited to 40
Spr EDUC1030 S01 24856 TTh 9:00-10:20(08) (J. Modell)

EDUC 1040. Sociology of Education.
The eclectic sociological imagination is turned upon that crucial modern institution: education. Considers formal education as a contemporary institution and schools as organizations both in comparative perspective and in more microscopic ways. Asks what schools and schooling means to society and to children from different social and economic circumstances. Enrollment limited to 50
Fall EDUC1040 S01 15486 TTh 9:00-10:20(08) (J. Modell)
EDUC 1050. History of African-American Education
This course will examine the history of African-American education with particular emphasis on the twentieth century. We will explore African-Americans’ experiences with schooling under slavery and segregation, the struggle for desegregation and equity North and South, and the place of education in African-Americans’ quest for equal rights. We will also consider how the African-American experience with public schooling makes us rethink major narratives of American education, democracy, and equality of opportunity and how an historical understanding of these issues may help us engage contemporary debates
Spr EDUC1050 S01 24860 MWF 10:30-11:50(09) (T. Steffes)

EDUC 1060. Politics and Public Education
Who exercises power in public education? This course examines the key institutions (e.g. school districts, states, Congress, and the courts) and actors (e.g. parents, teachers, interest groups, and the general public) shaping American K-12 education in order to understand recent policy trends and their present a genesis for students. Major policies discussed include school finance, textbook adoption, school accountability, and school choice. Particular attention is given to the federal No Child Left Behind Act of 2001 and debates over its reauthorization. Previous coursework in American politics or public policy is suggested but not required
Spr EDUC1060 S01 24850 MWF 10:00-10:50(03) (J. Papay)

EDUC 1070A. Student Teaching: English. S/NC
Fall EDUC1070AS01 15552 Arranged (L. Snyder)
Spr EDUC1070AS01 24900 Arranged (L. Snyder)

EDUC 1070B. Student Teaching: History and Social Studies. S/NC
Fall EDUC1070BS01 15553 Arranged (B. Fong)
Spr EDUC1070BS01 24901 Arranged ‘To Be Arranged’ (D. Bisaccio)

EDUC 1070C. Student Teaching: Science. S/NC
Fall EDUC1070CS01 15554 Arranged (D. Bisaccio)
Spr EDUC1070CS01 24902 Arranged (D. Bisaccio)

EDUC 1080A. Analysis of Teaching: English. S/NC
Fall EDUC1080AS01 15562 W 4:00-6:20(14) (L. Snyder)
Spr EDUC1080AS01 24914 W 4:00-6:20(14) (L. Snyder)

EDUC 1080B. Analysis of Teaching: History and Social Studies. S/NC
Fall EDUC1080BS01 15563 W 4:00-6:20(14) (B. Fong)
Fall EDUC1080BS01 15563 F 4:00-6:20(14) (B. Fong)
Spr EDUC1080BS01 24909 W 4:00-6:20(14) ‘To Be Arranged’ (D. Bisaccio)

EDUC 1080C. Analysis of Teaching: Science. S/NC
Fall EDUC1080CS01 15564 W 4:00-6:20(14) (D. Bisaccio)
Spr EDUC1080CS01 24910 W 4:00-6:20(14) (D. Bisaccio)

EDUC 1090. Adolescent Literature
This course provides a general overview of the historical, sociocultural, academic, and political issues that provide context for the use and availability of adolescent literature today. Particular attention is paid to issues of reading engagement for striving adolescent readers, issues of access to literacy through adolescent literature, ways that adolescent literature can be paired with the classics, and issues of censorship in American public school classrooms and public libraries. Several special guests from public schools, non-profit organizations, and libraries will join us literally and virtually to add to our perspectives on the debates surrounding adolescent literature. Not open to first-year students
Spr EDUC1090 S01 24864 M 3:00-5:20(13) (L. Snyder)

EDUC 1100. Introduction to Qualitative Research Methods.
Designed for sophomores or juniors concentrating in education studies, but also open to other undergraduates interested in qualitative research methods. Through readings, class exercises and discussions, and written assignments, examines issues related to the nature of the qualitative research methods that are commonly used in education, psychology, anthropology, and sociology. Enrollment limited to 20
Spr EDUC1100 S02 24863 M 3:00-5:20(11) (J. Lindsay)

Introduction to the key ideas underlying statistical and quantitative reasoning. A hands-on pedagogical approach utilizing examples from education research and policy analysis. Topics include the fundamentals of probability, descriptive and summary statistics, statistical inference, bivariate and multivariate regression, correlation, and analysis of variance. Computer-based data analysis reinforces statistical concepts. Enrollment limited to 24
Fall EDUC1110 S01 15488 MWF 1:00-2:20(10) (E. Rollins)

EDUC 1130. Economics of Education I.
How do we attract good teachers to public schools? What are the economic returns to early-childhood intervention programs? These are just two examples of important education policy questions. This course introduces key concepts of microeconomic theory and uses them to analyze these and other policy questions. Organized around a structured sequence of readings. First year students require instructor permission.
WRIT
Fall EDUC1130 S01 15893 MWF 12:00-12:50(12) (J. Tyler)

EDUC 1150. Education, the Economy and School Reform.
Changes in the economy have had dramatic negative consequences for those without a college degree. This seminar explores the impact of these changes on workplace organization and the demand for skills, on what is taught in schools, and on school reform. Prerequisites: Education and PP concentrators, EDUC 1130 and EDUC 1110 (or equivalent); Economics concentrators, ECON 1110 or ECON 1130, and ECON 1620. Enrollment limited to 20
Spr EDUC1150 S01 24854 MWF 12:00-12:50(05) (R. Cho)

EDUC 1160. Evaluating the Impact of Social Programs.
Does a GED improve the earnings of dropouts? Do stricter gun laws prevent violent crime? Such “causal” questions lie at the heart of public policy decisions. This course examines both the difficulties involved in answering causal policy questions, and research designs that can overcome these difficulties. Prerequisite: EDUC 1110, POLS 1600, ECON 1630, SOC 1100 or equivalent. Enrollment limited to 32
Spr EDUC1160 S01 25264 MWF 2:00-2:50(07) (R. Cho)

Examines a century of efforts to improve schooling in the U.S., from John Dewey to Theodore Sizer and E.D. Hirsch, from “social efficiency” to charter schools and No Child Left Behind. How have these movements been affected by the historical contexts in which they operated? Have they produced any lasting results? How, if at all, should current reform movements be informed by the experiences of the past? Enrollment limited to 40. Instructor permission required.
Spr EDUC1200 S01 24861 MWF 11:00-11:50(04) (L. Speerh)

EDUC 1260. Emotion, Cognition, Education.
Provides an understanding of the role of emotions in influencing cognitive and social development. Reviews selected topics in the growing area of emotions and social cognition. Discussions focus on critical reviews of the literature and the application of the literature to education. Basic knowledge of the area is not assumed, so students in various areas are invited to participate
Fall EDUC1260 S01 15480 MWF 10:00-10:50(03) (J. Demick)

EDUC 1270. Adolescent Psychology.
Provides systematic treatment of the psychological, biological, and sociocultural nature of the adolescent. Both an individual and a collective perspective on the nature of the adolescent and adolescence are used to provide an analytical and comprehensive understanding of the complex environment and psyche of the adolescent. Readings include theoretical and empirical papers from such areas as psychology, sociology, anthropology, and education
Spr EDUC1270 S01 24859 TTh 2:30-3:50(11) (D. Rivas)

EDUC 1290. From Theory to Practice in Engaged Scholarship: Creating Community Based Learning Courses.
This course will explore theories of community-based learning and engaged scholarship within the context of higher education. The course is designed to provide students with an understanding of the possibilities in
the teaching and learning exchange to address significant social concerns. Enrollment limited to 20.

EDUC 1430. The Psychology of Race, Class, and Gender
Focuses on the social construction of race, class, and gender and how this construction influences an individual's perception of self and other individuals. Topics include identity development, achievement, motivation, and sociopolitical development. Enrollment limited to 30. WRIT
Fall EDUC1430 S01 15492 M 4:00-6:20(13) (D. Rivas)

EDUC 1450. The Psychology of Teaching and Learning.
Seeks both to demystify the process of teaching and to illuminate its complexities. Assists students with such questions as: What shall I teach? How shall I teach it? Will my students respond? What if I have a discipline problem? Focuses on the teaching-learning process and student behavior, as well as research, theory, and illustrations concerned with classroom applications of psychological principles and ideas. Prerequisites: EDUC 0800 or EDUC 1710. Enrollment limited to 50
Fall EDUC1450 S01 15498 Th 4:00-6:20(15) (D. Rivas)

EDUC 1560. Philosophy of Education: Educational Thought and Practice.
Consideration of different philosophies of education (classical, progressive, radical, feminist, multicultural). This iterative inquiry-based collaboration locates knowledge constructively and relationally, emphasizing classroom discussion and presentation, careful reading and writing (including on-line), school-site observation, and midterm and final projects on our philosophies and praxes of education. Enrollment limited to 20. DVPS LILE WRIT
Spr EDUC1560 S01 25599 Th 4:00-6:20(15) (J. Lindsay)

Despite expanding significant energy on education reform in this country and globally, most efforts fail to achieve their lofty ambitions, due to their reliance on "silver bullet" strategies and/or poor execution. This course will focus on management approaches to improving school system performance, enabling students to (a) explore key education reform strategies; (b) adopt a senior management mindset through weekly discussion of case studies; and (c) broaden their perspective through use of domestic and global school system examples. The course is appropriate for juniors, seniors and graduate students, who bring an interest in education and a commitment to active classroom discussion. Enrollment limited to 24
Fall EDUC1630 S01 16461 T 4:00-6:20(15) (A. Moffit)

EDUC 1650. Policy Implementation in Education.
This course offers an "analytical foundation" for students interested in public policy implementation, with particular emphasis on education. Drawing on social science research, the course examines strengths and limitations of several frameworks, including the "policy typology" school of thought, the rational actor paradigm, the institutional analysis, the bargain model, the organizational-bureaucratic model, and the "consumer choice" perspective. Enrollment limited to 20. WRIT
Spr EDUC1650 S01 24865 W 3:00-5:20(14) (K. Wong)

EDUC 1710. History and Theories of Child Development.
An examination of child development from a historical and theoretical perspective, including key historical figures such as Darwin, Hall, Baldwin, Binet, Freud, Watson, Piaget, Vygotsky, Gesell, McGraw, Bowlby, and Bayley. Explores theoretical conceptualizations of children and adolescents and investigates the representations of children in popular culture, governmental legislation, education, and public policy
Spr EDUC1710 S01 24861 MWF 9:00-9:50(02) "To Be Arranged"

EDUC 1720. Urban Schools in Historical Perspective.
Why did urban schools, widely viewed as the best in the nation in the early twentieth century, become a "problem" to be solved by its end? How have urban schools been shaped by social, economic, and political transformations in cities and by other public policies? How have urban schools changed over time? This course will ask these and other questions to explore how historical perspective can help us better understand urban schools today. We will analyze the impact of changes in demographics, urban renewal and suburban development, the political economy of cities, educational expectations, and demands for equity. Enrollment limited to 20.
Fall EDUC1720 S01 16214 M 3:00-5:20(13) (T. Steffes)

EDUC 1730. American Higher Education in Historical Context.
A study of 350 years of American higher education. The first part traces the growth and development of American higher education from premodern college to the modern research university. The second part examines issues facing higher education today and places them in historical context. Particular attention is given to: the evolution of curriculum; professionalization; student life; and the often competing priorities of teaching, research and service
Fall EDUC1730 S01 15481 MWF 11:00-11:50(04) (L. Spoehr)

EDUC 1750. Contemporary Social Problems: Views from Human Development and Education.
Explores social problems in terms of contemporary theories and research in human development and education. The class chooses issues for discussion and researches their mechanisms and possible solutions. Demands basic knowledge of theory and research in psychology, sociology, or anthropology, and background in educational issues. Prerequisite: EDUC 0800, 1270, or 1710; or any other two social science courses
Fall EDUC1750 S01 15483 MWF 12:00-12:50(12) (M. Rana)

EDUC 1850. Moral Development and Education.
Examines contending approaches to moral development and its fostering in the home, school and peer group. Topics include philosophical underpinnings of moral theory, cognitive and behavioral dynamics of moral growth, values climate of contemporary American society, the role of schooling, and variations attributable to culture and gender. Prerequisites: EDUC 0800, 1270, or 1710, or CLPS 0610 (COGS 0630), or CLPS 0600 (PSYC 0810). Enrollment limited to 30. WRIT
Spr EDUC1850 S01 25597 Th 4:00-6:20(15) (J. Demick)
Spr EDUC1850 S02 25849 Th 4:00-6:20(15) (J. Li)

EDUC 1860. Social Context of Learning and Development.
Focuses on the social environment that contributes to the development of children's minds, language, self-understanding, relations with others, affect, and attitudes toward learning. Examines the period from birth through young adulthood. Topics include children's social interactions, parental expectations and socialization practices, and the influences of family, peers, school, and media. Prerequisites: EDUC 0800, EDUC 1270, EDUC 1430, EDUC 1580, EDUC 1710, CLPS 0610 (COGS 0630), or equivalent. Enrollment limited to 30.
Fall EDUC1860 S01 15495 F 3:00-5:20(15) (M. Rana)
Spr EDUC1860 S01 24876 Th 4:00-6:20(15) (J. Li)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
Preparation of an honors thesis. Written permission from the honors advisor required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
EDUC 2070A. Student Teaching: English.
S/NCR.
Fall EDUC2070AS01 15555 Arranged (L. Snyder)
Spr EDUC2070AS01 24903 Arranged (L. Snyder)

EDUC 2070B. Student Teaching: History and Social Studies.
S/NCR.
Fall EDUC2070BS01 15556 Arranged (B. Fong)
Spr EDUC2070BS01 24906 Arranged "To Be Arranged"

EDUC 2070C. Student Teaching: Science.
S/NCR.
Fall  EDUC2070CS01  15557  Arranged  (D. Bisaccio)  
Spr  EDUC2070CS01  24907  Arranged  (D. Bisaccio)  

**EDUC 2080A. Analysis of Teaching: English.**  
No credit course  
Fall  EDUC2080AS01  15565  W  4:00-6:20(14)  (L. Snyder)  
Spr  EDUC2080AS01  24917  W  4:00-6:20(14)  (L. Snyder)  

**EDUC 2080B. Analysis of Teaching: History and Social Studies.**  
No credit course  
Fall  EDUC2080BS01  15560  W  4:00-6:20(14)  (B. Fong)  
Fall  EDUC2080BS01  15560  F  4:00-6:20(14)  (B. Fong)  
Spr  EDUC2080BS01  24911  W  4:00-6:20(14)  ‘To Be Arranged’  

**EDUC 2080C. Analysis of Teaching: Science.**  
No credit course  
Fall  EDUC2080CS01  15566  W  4:00-6:20(14)  (D. Bisaccio)  
Spr  EDUC2080CS01  24913  W  4:00-6:20(14)  (D. Bisaccio)  

**EDUC 2120. Practicum and Seminar in Elementary Education.**  
Students participate in an elementary classroom for 2 1/2 days a week for 12 weeks, participating in all aspects of the school day. Students assume responsibility for individualized instruction, small groups and some daily routines. Examines topics in child development; race, class, ethnic and linguistic diversity; assessment; teaching and learning as well as topics arising from the experiences in classrooms. S/NC  
Fall  EDUC2120  S01  15549  W  3:30-6:20(14)  (J. Lindsay)  

**EDUC 2140. Methods and Materials of Math, Science, and Technology.**  
Using a developmental approach, students are introduced to the major concepts and teaching methods used in elementary math and science classrooms. S/NC  
Fall  EDUC2140  S01  15550  F  12:30-3:30(12)  (D. Bisaccio)  
Spr  EDUC2140  S01  24895  F  12:30-3:30(15)  (D. Bisaccio)  

**EDUC 2150. Language and Literacy in the Elementary School Classroom.**  
An introduction to Comprehensive Literacy instruction in reading and writing, including strategies for teaching interactive read alouds; shared reading and shared writing; phonics and word work; independent reading workshop; guided reading; writer’s notebooks; writing workshop; and children’s literature via an author study. S/NC  
Fall  EDUC2150  S01  15551  M  4:00-6:45(13)  (M. Nosal)  
Spr  EDUC2150  S01  24898  F  4:00-6:45(15)  ‘To Be Arranged’  

**EDUC 2270. Student Teaching.**  
Provides no fewer than 180 hours of student teaching and observation-equivalent to six semester hours of credit in institutions operating on a semester-hour basis and fulfills the supervised student teaching requirements for elementary school teaching certification in Rhode Island and in ICC member states. S/NC  
Spr  EDUC2270  S01  24892  Arranged(14)  (J. Lindsay)  

**EDUC 2280. Seminar: Principles of Learning and Teaching.**  
A critical analysis of the activity of teaching, restricted to and required of students taking EDUC 2270. The course requires curriculum and lesson planning, reflective analyses of student learning and classroom teaching, and places learning and teaching in context with attention to issues of diversity of schools and their student bodies. S/NC  
Spr  EDUC2280  S01  24893  W  3:30-6:20(14)  (J. Lindsay)  

**EDUC 2320. Quantitative Research Methods and Data Analysis.**  
The goal of this course is to provide students in the Urban Education Policy course with a foundation and understanding of basic statistical analyses so that they will be able to design and carry out their own research and will be able to use data to inform education policy and practice  
Fall  EDUC2320  S01  15489  T  4:00-6:20(15)  (S. Dougherty)  

**EDUC 2330. Urban Politics and School Governance.**  
This course is a requirement for students of the MA in Urban Education Policy program. It deals with the political science and public policy central question of: How can public institutions be redesigned to improve accountability? Particular attention will be given to the governance and politics in urban public school systems  
Fall  EDUC2330  S01  15861  W  4:00-6:20(14)  (K. Wong)  

**EDUC 2350. Economics of Education II.**  
Introduces students to the main economic theories and related applied work that inform education policy analysis. In so doing, the course combines economic theory, econometric studies, and education and institutional literature in an examination of current issues in U.S. education, particularly those issues that are most relevant to urban education. The course begins with examinations of key concepts and theories from microeconomics, labor economics, and public economics that are most relevant for studying questions in education. After laying this theoretical foundation the course then examines how these theories can illuminate and aid policy analysis around key topics in U.S. education. Open to graduate students only  
Spr  EDUC2350  S01  24872  Th  4:00-6:20(15)  (J. Tyler)  

**EDUC 2360. Policy Analysis and Program Evaluation for Education.**  
Informed education policymaking requires reliable information about the causal effects of government programs and other factors shaping educational outcomes. This course offers an overview of education policy analysis with an emphasis on econometric strategies for measuring program impacts. It aims to make students critical consumers of policy evaluations and to equip them with tools to conduct their own research. Topics covered include the political context for policy research, social experiments, alternative strategies for making causal inferences, and cost-benefit analysis. Prerequisites: EDUC 1110, POLS 1600, SOC 1100, or written permission of the instructor  
Spr  EDUC2360  S01  24878  M  4:00-6:20(13)  (J. Papay)  

**EDUC 2370. Internship.**  
Students in the Urban Education Policy Master’s Program participate in year-long internships in organizations that focus on urban education policy. Each student works with his or her site supervisor to develop a job description for the internship that allows the student to learn from and contribute to the work of the host organization  
Fall  EDUC2370  S01  15579  Arranged  (K. Wong)  

**EDUC 2380. Internship.**  
Students in the Urban Education Policy Master’s Program’s Program participate in year-long internships in organizations that focus on urban education policy. Each student works with his or her site supervisor to develop a job description for the internship that allows the student to learn from and contribute to the work of the host organization  
Spr  EDUC2380  S01  25115  Arranged  (K. Wong)  

**EDUC 2450. Exchange Scholar Program.**  

**EDUC 2980. Studies in Education.**  
Independent study; must be arranged in advance. Section numbers vary by instructor. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course  

**EDUC 2990. Thesis Preparation.**  
No description available  

**EDUC XLIST. Courses of Interest to Concentrators in Education.**  

**Egyptology and Ancient Western Asian Studies**  

**Ancient Western Asian Studies**  

**AWAS 0200. Introduction to Akkadian.**  
This course is an intensive introduction to the writing system, grammar and vocabulary of Akkadian, the language of ancient Mesopotamia (modern Iraq). Akkadian is the earliest known Semitic language (related to Arabic and Hebrew), first written over four thousand years ago, and the language of some of the oldest written myths, historical documents,
omens, magical formulas and even love poems in the world. Students will learn the classic Old Babylonian diet (ca. 1800 BCE), and read selections from texts in the original language. No prerequisites
Fall AWAS0200 S01 15125 MWF 2:00-2:50(07) (M. Rutz)

AWAS 0210. Intermediate Akkadian.
This course is the second semester of an intensive, yearlong introduction to the Akkadian (Babylonian/Assyrian) language. Students will deepen their knowledge of the cuneiform writing system and continue to develop their grasp of Akkadian grammar. Readings from Mesopotamian texts in the original language will include, among others, selections from the Laws of Hammurapi, Assyrian historical texts (such as the accounts of Sennacherib’s siege of Jerusalem), and the story of the Flood from the Standard Babylonian Epic of Gilgamesh. Prerequisite: Introduction to Akkadian (AWAS0200) or permission of the instructor
Spr AWAS0210 S01 24428 MWF 2:00-2:50(07) (J. Steele)

AWAS 0800. Introduction to the Ancient Near East.
This course offers an introduction to the study of the political, social and cultural history of the ancient Near East, from prehistory to the end of the Iron age (ca. 330 BC). Both literary sources and archaeological evidence are examined as relevant. Near East is understood here in its widest geographic extent, including primarily the Mesopotamian lowlands, Iran and Syro-Anatolian highlands, as well as the Levantine coast. The course not only offers a foundational survey of the historical developments in the region, but also addresses the broader methodological and historiographic problems involved in Near Eastern studies. State formation and the development of complex societies, cult practices and cuneiform literary traditions, art, architecture and material culture, issues of landscape and settlement systems, agricultural production, regional and interregional trade, and craft production will constitute the central issues in the course. WRIT
Fall AWAS0800 S01 15126 TTh 2:30-3:50(11) (M. Rutz)

The course will focus on the cultural and religious-historical interpretation of physical displacements among sacred places, including urban processions, visits to temples and journeys to sacred places within the context of the Ancient Near Eastern religions. We will attempt to sketch a map of the holy centers and cultic itineraries, focusing on case studies from Babylonia, Assyria and Syria from the third to the first millennium BC as well as comparative case studies from surrounding cultures. These topics will be explored with an emphasis on how written and archaeological sources can be interpreted with the help of theoretical literature
Spr AWAS1200 S01 25782 MWF 12:00-12:50(05) (C. Pappi)

AWAS 1600. Astronomy Before the Telescope.
This course provides an introduction to the history of astronomy from ancient times down to the invention of the telescope, focusing on the development of astronomy in Babylon, Greece, China, the medieval Islamic world, and Europe. The course will cover topics such as the invention of the zodiac, cosmological models, early astronomical instruments, and the development of astronomical theories. We will also explore the reasons people practiced astronomy in the past. No prior knowledge of astronomy is necessary for this course
Spr AWAS1600 S01 24432 TTh 10:30-11:50(09) (J. Steele)

AWAS 1650. Time in the Ancient World.
Time plays many roles in civic and everyday life: calendars provide a way of regulating activities ranging from gathering taxes to knowing when to perform religious rituals. This course will provide an introduction to the way time was measured, used, regulated and conceived in the ancient world. We will cover topics such as the calendars used in Mesopotamia, Egypt, Greece and China, sundials and other instruments used for measuring time in the ancient world, and the way time is used in scientific and non-scientific texts. WRIT
Fall AWAS1650 S01 15127 TTh 10:30-11:50(09) (J. Steele)

AWAS 1800. Scribes and Scholarship in the Ancient Near East.
This course will explore the development of written traditions among the scribes of the Ancient Near East. Topics covered include the mechanics of writing on clay tablets, the training of scribes and the school curriculum, the status of scribes in society, the development of literary and scholarly traditions, the creation of tablet archives, and the range of scholarship (eg science, medicine, ritual, literature) found in the ancient Near east
Spr AWAS1800 S01 24441 TTh 2:30-3:50(11) (J. Steele)

AWAS 2310C. Assyriology II.
This seminar will focus on selected topics of Neo-Assyrian history (1000-612 BC), including: the royal family, the queen and her influence; celebrating New Year’s festivals; hunting lions; conquering a city; constructing and decorating palaces and temples; urban renewal and the founding of new cities; the substitute king ritual; and scholarly life. Assyria in the first millennium BC will be examined principally from Assyrian texts in translation. WRIT
Fall AWAS2310C S01 15128 Arranged (M. Rutz)

AWAS 2500. Readings in Sumerian.
Advanced readings in Sumerian cuneiform texts in the original script and language. Readings will be selected from a particular genre, historical period, or site. This course is intended primarily for graduate students and may be repeated for credit. A reading knowledge of Sumerian cuneiform is required. A reading knowledge of both German and French is strongly recommended but not required
Fall AWAS2500 S01 16285 Arranged (C. Pappi)

AWAS 2700. Special Topics in Ancient Sciences.
This course will be a topics course containing a detailed technical and cultural study of an area of science in a culture of the ancient world. Although intended for graduate students, undergraduate students who have taken EGYT 1600 or AWAS 1600 or a similar course may be admitted at the instructor’s discretion
Fall AWAS2700 S01 15130 Arranged (J. Steele)

AWAS 2750. Art and Visual Culture in the Ancient Near East.
Peoples of the Ancient Near East from prehistory to the Hellenistic period produced a unique corpus of production technologies and visual culture. Cultures from Anatolia to the Iraqi southern alluvium, from the Levant to Iran and the Caucasus shared this common pictorial language in a variety of ways. In this seminar, we will investigate bodies of archaeological, architectural and pictorial evidence from the Near East while also debating relevant art and architecture historical methodologies and discourses in direct relationship to that material. Conceptual issues such as narrative, representation, perspective, agency, technology, style, symbolism, landscape, space, and power will be explored. Enrollment limited to 15
Spr AWAS2750 S01 25769 Th 4:00-6:20(15) (O. Hamansah)

AWAS 2900. Introduction to Hittite Language and Literature.
This course is an introduction to Hittite literature, literature, and culture. Hittite, the earliest attested Indo-European language (thus related to Greek, Latin, and Sanskrit) was used in Anatolia during the second millennium BCE. It survives in tens of thousands of tablets written in cuneiform script. Students will learn the basic grammar of the language and read in the original or in translation specimens from the fascinating textual legacy of the Hittites, which includes myths, prayers, laws, diplomatic texts as well as formal and informal letters. They will also become familiar with the cultural environment in which those texts were composed
Spr AWAS2900 S01 25867 Arranged (F. Rojas Silva)

AWAS 2980. Reading and Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

AWAS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

AWAS XLIST. Courses of Interest to Concentrators in Ancient Western Asian Studies.
Fall 2012
The following courses may be of interest to Ancient Western Asian Studies concentrators. Please see the sponsoring department for the time and location of each course.

Humanities
HMAN 1970D Places of Healing: Memory, Miracle, and Storytelling
Spring 2013

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The following courses may be of interest to Ancient Western Asian Studies concentrators. Please see the sponsoring department for the time and location of each course.

**Egyptology**

EGYT 1310. Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian I). Much of this two-semester sequence is spent learning the signs, vocabulary, and grammar of one of the oldest languages known by the end of this introductory year, students read authentic texts of biographical, historical, and literary significance. The cornerstone course in the Department of Egyptology—essential for any serious work in this field and particularly recommended for students in archaeology, history, classics, and religious studies. Prerequisites: None

**Fall** EGYT1310 S01 15131 TTh 9:00-10:20(08) (J. Allen)

**EGYT 1320. Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian II).**

Continuation of the two-semester sequence spent learning the signs, vocabulary, and grammar of one of the oldest languages known. By the end of this introductory year, students read authentic texts of biographical, historical, and literary significance. The cornerstone course in the Department of Egyptology—essential for any serious work in this field and particularly recommended for students in archaeology, history, classics, and religious studies. Prerequisite: EGYT 1310

**Spr** EGYT1320 S01 24433 TTh 9:00-10:20(08) (J. Allen)

**EGYT 1330. Selections from Middle Egyptian Hieroglyphic Texts.**

Readings from the various genres of classical Egyptian literature, including stories and other literary texts, historical inscriptions, and religious compositions. Students will be expected to translate and discuss assigned texts. Prerequisite: EGYT 1310, 1320

**Fall** EGYT1330 S01 15132 TTh 1:00-2:20(10) (J. Allen)

**EGYT 1410. Ancient Egyptian Literature.**

A survey of one of the most intriguing aspects of ancient Egyptian culture. Readings (in translation) of many of the most significant literary documents that survive from Egypt. Presentation of a reasonable amount of historical perspective. Class discussions concerning the nature, purpose, quality, and effectiveness of the works read. Two term papers. No prerequisites. Offered in alternate years. WRIT

**Fall** EGYT1410 S01 15133 MWF 10:00-10:50(03) (L. Depuydt)

**EGYT 1420. Ancient Egyptian Religion and Magic.**

An overview of ancient Egyptian religion from both a synchronic and diachronic perspective. Examines such topics as the Egyptian pantheon, cosmology, cosmogony, religious anthropology, personal religion, magic, and funerary beliefs. Introduces the different genres of Egyptian religious texts in translation. Also treats the archaeological evidence which contributes to our understanding of Egyptian religion, including temple and tomb architecture and decoration. Midterm and final exams; one research paper. WRIT

**Spr** EGYT1420 S01 24435 TTh 1:00-2:20(10) (J. Allen)

**EGYT 1455. Black Pharaohs: Nubian Rule over Egypt in the 25th Dynasty.**

The course will cover Egypt’s 25th Dynasty (728-657 BC), when rulers of Nubia, located in the region of modern Sudan, added Egypt to their territories. Using a wide range of textual and archaeological evidence, students will learn about the history of famous ‘black pharaohs’ such as Taharqa and study some of Africa’s most impressive archaeological remains. This fascinating period is not well understood and has often been afflicted in the past by racist, colonialist scholarship; using primary sources and recent theory on ethnic identity, this class will re-examine the complex and changing relationship between Egypt and Nubia

**Spr** EGYT1455 S01 25770 MW 8:30-9:50(02) (K. Howley)

**EGYT 1490. Calendars and Chronology in Ancient Egypt and the Ancient World.**

Time is the dimension of history. Chronology studies how we know when events happened. Chronology is much more important to “BC history” than to “AD history.” History books state that the great Ramses II ruled around the thirteenth century B.C.E. But how do we know this? The focus of this class is on the answers to such questions through the study of the foundations of the history of Egypt specifically and of the ancient world in general. Some prior knowledge of Egyptian language or civilization might be handy but is by no means required

**Spr** EGYT1490 S01 24436 MWF 10:00-10:50(03) (L. Depuydt)

**EGYT 1910. Senior Seminar.**

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

**EGYT 1920. Senior Seminar.**

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

**EGYT 2410. Late Egyptian.**

Introduction to the grammar of the third historical phase of ancient Egyptian and readings from its various genres, including literary texts, letters, historical inscriptions, and tomb-robbing papyri. Students will be expected to translate and discuss assigned texts. Prerequisites: EGYT 1310, 1320

**Spr** EGYT2410 S01 24437 Arranged (L. Depuydt)

**EGYT 2610. Introduction to Demotic.**

Begins with discussions and exercises in the grammar and peculiar script of this late stage of the Egyptian language, followed by readings of actual ancient texts, including The Instructions of Onkheshonkh, The Petition of Penetene, and The Story of Sebek Khaemwas. Knowledge of Demotic remains essential for a proper understanding of Egypt during the Saite, Persian, Ptolemaic, and Roman periods. Open to undergraduates with consent of instructor. Prerequisites: EGYT 2410 or 2210

**Fall** EGYT2610 S01 15134 Arranged (L. Depuydt)

**EGYT 2970. Preliminary Examination Preparation.**

For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

**EGYT 2980. Reading and Research.**

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

**EGYT 2990. Thesis Preparation.**

For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

**EGYT XLIST. Courses of Interest to Concentrators in Egyptology.**

Fall 2012

The following courses may be of interest to Egyptology concentrators. Please see the sponsoring department for the time and location of each course.

**Humanities**

HMAN 1970D Places of Healing: Memory, Miracle, and Storytelling

**Spring 2013**

The following courses may be of interest to Egyptology concentrators. Please see the sponsoring department for the time and location of each course.

**Engineering**


This course will address the impact that technology has on society, the central role of technology on many political issues, and the need for all educated individuals to understand basic technology and reach an informed opinion on a particular topic of national or international interest.

The course will begin with a brief history of technology

**Spr** ENGN0020 S01 25087 MWF 11:00-11:50(04) (E. Powell)

**ENGN 0030. Introduction to Engineering.**

An introduction to various engineering disciplines, thought processes, and issues. Topics include computing in engineering, engineering design, optimization, and estimation. Case studies in engineering are used to illustrate engineering fields and scientific principles, including in-depth studies of statics and optics. Laboratories and design projects are included. Prerequisite: one of the following: APMA 0330, 0340, 0350, 0360, MATH 0100, 0170, 0180, 0190, 0200, 0350, 0520, 0540, which may be taken concurrently.
Students MUST register for the course lecture (M01) and one of the sections during the SAME registration session. Banner will not allow a student to register for one component without registering for the other at the same time. Further, if you drop one component of the course on Banner, both components will be dropped.

Fall ENGN0030 M01 16042 F 9:00-9:50 (K. Haberstroh)
Fall ENGN0030 S01 15588 Th 9:00-10:20(02) (R. Bahar)
Fall ENGN0030 S01 15588 MW 9:00-9:50(02) (R. Bahar)
Fall ENGN0030 S02 16035 MW 9:00-9:50(02) (P. Felzenszwalb)
Fall ENGN0030 S02 16035 T 2:30-3:50(02) (P. Felzenszwalb)
Fall ENGN0030 S03 16039 MW 9:00-9:50(02) (K. Haberstroh)
Fall ENGN0030 S03 16039 T 9:00-10:20(02) (K. Haberstroh)
Fall ENGN0030 S04 16040 Th 2:30-3:50(02) (K. Breuer)
Fall ENGN0030 S04 16040 MW 9:00-9:50(02) (K. Breuer)
Fall ENGN0030 S05 16041 MW 9:00-9:50(02) (C. Briant)
Fall ENGN0030 S05 16041 Th 4:00-5:20(02) (C. Briant)

ENGN 0400. Dynamics and Vibrations.
Study of the kinematics and dynamics of particles and rigid bodies. Principles of motion of mechanical systems. Concepts of inertia, work, kinetic energy, linear momentum, angular momentum, and impact. Applications to engineering systems, satellite orbits, harmonic vibrations of one and two degree of freedom systems. Lectures, recitations, and laboratory. Prerequisite: ENGN 0030. Corequisite: MATH 0200 or 0180.

Spring ENGN0040 M01 25208 TTh 9:00-10:20 (A. Bower)
Spring ENGN0040 S02 24961 MWF 9:00-9:50(08) (A. Bower)
Spring ENGN0040 S03 24962 MWF 10:00-10:50(08) (A. Bower)
Spring ENGN0040 S04 24963 MWF 11:00-11:50(08) (A. Bower)
Spring ENGN0040 S05 24964 MWF 1:00-1:50(08) (A. Bower)
Spring ENGN0040 S06 24965 MWF 2:00-2:50(08) (A. Bower)

ENGN 0090. Management of Industrial and Nonprofit Organizations.
Exposes students to the concepts and techniques of management. Topics include marketing, strategy, finance, operations, organizational structure, and human relations. Guest lecturers describe aspects of actual organizations. Lectures and discussions.

Fall ENGN0090 S01 15795 Th 1:00-2:20(17) (B. Hazeltine)
Fall ENGN0090 S03 15797 TTh 2:30-3:50(17) (B. Hazeltine)
Fall ENGN0090 S04 15798 TTh 6:30-7:50(17) (B. Hazeltine)

ENGN 0120A. Crossing the Consumer Chasm by Design.
Technologies have shaped human life since tools were sticks and flints to today’s hydrocarbon powered, silicon managed era. Some spread throughout society; bread, cell phones, airlines, but most never do; personal jet packs, Apple Newton, freeze dried ice cream.

Space Tourism, the Segway, electric cars: Can we predict which ones will cross the chasm to broad application? Can we help them to by combining design, engineering, marketing, communications, education, art, and business strategies?

Student teams identify potential new products, conceptualize, package, and define their business mode. By plotting their course across the chasm, we confront the cross-disciplinary barriers to realizing benefits from technology.

Enrollment limited to 18 first year students. Instructor permission required. FYS WRIT

Spring ENGN0120AS01 24999 MWF 11:00-11:50(17) (R. Fleeter)

ENGN 0120B. Crossing the Space Chasm Through Engineering Design.
Five decades of human activity in space has provided the world community with benefits including instant global communications and positioning, human and robotic exploration of the moon, planets and sun, and a perspective of earth which continues to inform and influence our relationship with our environment.

Unlike other technical revolutions of the 20th century space has not transitioned to a commercial, consumer market commodity. Rather its users and applications remain primarily large and institutional.

To experience the challenges of engineering design and of changing an industrial paradigm, we will work in one or several groups to identify a use of space, and a plan for its implementation, that could help transition space from its status as a niche technology. Through the process of design, we will confront the technical, economic, societal and political barriers to obtaining increased benefits from technologies in general, and space in particular, and to making new technologies beneficial to a wider range of users. Enrollment limited to 18 first year students. Instructor permission required. FYS WRIT

Spring ENGN0120BS01 25000 MWF 2:00-2:50(17) (R. Fleeter)

ENGN 0260. Mechanical Technology.
A basic machine shop course that, with the help of an instructor, teaches students how to fabricate a few simple objects using hand tools and some basic machines. This course is designed to introduce the student to the machining process and environment. Audit only

Fall ENGN0260 S01 15884 Arranged (C. Bull)
Spring ENGN0260 S01 25083 Arranged (C. Bull)

Mechanical behavior of materials and analysis of stress and deformation in engineering structures and continuous media. Topics include concepts of stress and strain; the elastic, plastic, and time-dependent response of materials; principles of structural analysis and application to simple bar structures, beam theory, instability and buckling, torsion of shafts; general three-dimensional states of stress; Mohr’s circle; stress concentrations. Lectures, recitations, and laboratory. Prerequisite: ENGN 0030.

Fall ENGN0310 M01 15870 MWF 9:00-9:50 (T. Powers)
Fall ENGN0310 S02 15600 Th 1:00-2:20(17) (T. Powers)
Fall ENGN0310 S03 15601 Th 2:30-3:50(17) (T. Powers)

ENGN 0410. Materials Science.
Relationship between the structure of matter and its engineering properties. Topics: primary and secondary bonding; crystal structure; atomic transport in solids; defects in crystals; mechanical behavior of materials; phase diagrams and their utilization; heat treatment of metals and alloys; electrical, optical, and magnetic properties of materials; strengthening mechanisms in solids and relationships between microstructure and properties; corrosion and oxidation. Lectures, recitations, laboratory.

Fall ENGN0410 M01 15610 M 11:00-11:50 (E. Chason)
Fall ENGN0410 M01 15610 Th 9:00-10:20 (E. Chason)
Fall ENGN0410 S02 15608 W 11:00-11:50(08) (E. Chason)
Fall ENGN0410 S03 15609 W 9:00-9:50(08) (E. Chason)

ENGN 0510. Electricity and Magnetism.
Fundamental laws of electricity and magnetism and their role in engineering applications. Concepts of charge, current, potential, electric field, magnetic field. Resistance, capacitance, and inductance. Electric and magnetic properties of materials. Electromagnetic wave propagation. Lectures, recitation, and laboratory. Prerequisites: ENGN 0030 or PHYS 0070; ENGN 0040 or PHYS 0160 (previously 0080); MATH 0180 or 0200; and APMA 0330 or 0350 (may be taken concurrently).

Fall ENGN0510 M01 15914 MWF 10:00-10:50 (D. Pacifico)
Fall ENGN0510 S02 15910 T 10:30-11:50(03) (D. Pacifico)
Fall ENGN0510 S03 15911 T 1:00-2:20(03) (D. Pacifico)
Fall ENGN0510 S04 15912 Th 10:30-11:50(03) (D. Pacifico)
Fall ENGN0510 S05 15913 Th 1:00-2:20(03) (D. Pacifico)

ENGN 0520. Electrical Circuits and Signals.
An introduction to electrical circuits and signals. Emphasizes the analysis and design of systems described by ordinary linear differential equations. The frequency domain is introduced, including the effects of sampling and windowing in computer simulations. Other topics include transient analysis, Fourier series, and Laplace transform. Laboratories apply concepts to real problems in audio and controls. Lectures, recitation, and laboratory. Prerequisite: APMA 0330 or 0350.

Spring ENGN0520 M01 25215 MWF 10:00-10:50 (H. Silverman)
Spring ENGN0520 S02 25216 T 9:00-10:20(03) (H. Silverman)
Spring ENGN0520 S03 25217 T 9:00-10:20(03) (H. Silverman)
Spring ENGN0520 S04 25218 Th 9:00-10:20(03) (H. Silverman)
Spring ENGN0520 S05 25219 Th 9:00-10:20(03) (H. Silverman)

ENGN 0720. Thermodynamics.
An introduction to macroscopic thermodynamics and some of its engineering applications. Presents basic concepts related to equilibrium.
and the zeroth, first and second laws for both closed and open systems. Examples include analysis of engines, turbines, and other engineering cycles, phase equilibrium and separation processes, chemical reactions, surface phenomena, magnetic and dielectric materials. Lectures, recitations, and laboratory. Prerequisites: ENGN 0030 or ENGN 0040. Recommended: ENGN 0410 or CHEM 0330

Spr ENGN0720 M01 25213 TTh 10:30-11:50 (G. Palmore)
Spr ENGN0720 S02 24966 W 3:00-3:50(09) (G. Palmore)
Spr ENGN0720 S03 24967 W 2:00-2:50(09) (G. Palmore)


Fall ENGN0810 M01 15871 MWF 1:00-1:50 (J. Franck)
Fall ENGN0810 S02 15613 Th 4:00-4:50(06) (J. Franck)
Fall ENGN0810 S03 15614 Th 12:00-12:50(06) (J. Franck)

ENGN 0900. Managerial Decision Making.

Ways of making effective decisions in managerial situations, especially situations with a significant technological component; decision analysis; time value of money; competitive situations; forecasting; planning and scheduling; manufacturing strategy; corporate culture. Lectures and discussions. Prerequisite: ENGN 0090 or MATH 0100

Spr ENGN0900 S01 25129 TTh 1:00-2:20(10) (B. Hazelten)
Spr ENGN0900 S02 25130 TTh 2:30-3:50(10) (B. Hazelten)

ENGN 0930A. Appropriate Technology.

Our goal for this course is that you leave it with the ability to think and act rationally and concretely on issues of technology and the human condition. We will provide background on useful technologies (e.g. wind, solar, hydro), techniques to fabricate them, and an opportunity to explore the obstacles to their implementation.

Spr ENGN0930AS01 24998 TTh 10:30-11:50(09) (C. Bull)

ENGN 0930C. DesignStudio.

DESIGNSTUDIO is a course open to students interested in learning through making. Working in a studio environment, we will iteratively design, build, and test projects, as we imaginatively frame design problems, and develop novel strategies for addressing those problems. We will explore design thinking, creative collaboration, exploratory play, ideation, iteration, woodworking, prototyping, CNC milling and laser cutting – in addition to other strategies that enhance our creative processes - as we establish a technical and conceptual foundation for the design and fabrication of objects and experiences. Enrollment limited to 16. Instructor permission required

Fall ENGN0930C S01 16587 TTh 9:00-11:50(08) (C. Gonsher)
Spr ENGN0930C S01 25639 TTh 9:00-12:00(08) (C. Gonsher)

ENGN 1000. Projects in Engineering Design.

Projects in design for concentrators in chemical, electrical, materials, and mechanical engineering. Students generally work in teams on projects that are defined through discussions with the instructor. An assembled product or detailed design description is the goal of the semester’s effort. Prerequisite: completion of engineering core program. Enrollment limited to 40

Fall ENGN1000 S01 15615 Th 4:00-6:20(15) (K. Bradford)
Spr ENGN1000 S01 24972 Th 4:00-6:20(15) (K. Bradford)
Spr ENGN1000 S02 24973 Th 4:00-6:20(15) (K. Bradford)


Entrepreneurship is innovation in practice: transforming ideas into opportunities, and, through a deliberate process, opportunities into commercial realities. These entrepreneurial activities can take place in two contexts: the creation of new organizations; and within existing organizations. This course will present an entrepreneurial framework for these entrepreneurial processes, supported by case studies that illustrate essential elements. Successful entrepreneurs and expert practitioners will be introduced who will highlight practical approaches to entrepreneurial success. Enrollment limited to 35. WRIT

Fall ENGN1010 S01 15710 TTh 10:30-11:50(09) (D. Warshay)
Fall ENGN1010 S02 16189 M 6:00-8:30PM(18) (J. Cohen)
Spr ENGN1010 S01 25088 TTh 10:30-11:50(11) (D. Warshay)
Spr ENGN1010 S02 25600 TTh 2:30-3:50(11) (K. Bradford)

ENGN 1110. Transport and Biotransport Processes.

Aim: To develop a fundamental understanding of mass transport in chemical and biological systems. The course includes: mechanism of transport, biochemical interactions and separations; mass transport in reacting systems; absorption; membrane and transvascular transport; electrophoretic separations; pharmacokinetics and drug transport; equilibrium stage processes; distillation and extraction. Other features: design concepts; modern experimental and computing techniques; laboratory exercises

Spr ENGN1110 S01 24974 MWF 1:00-1:50(11) (R. Hurt)

ENGN 1120. Chemical and Biochemical Reactor Design.

Stoichiometry, thermodynamics, mechanisms, and rate expressions of homogeneous and heterogeneous chemical and biochemical systems. Basic concepts in homogeneous chemical and bioreactor design and identification models. Chemostat and enzymatic reactor design and operation. Temperature and energy effects in reactors. Introduction to heterogeneous chemical and bioreactor design. Co- or prerequisite: ENGN 0810. Offered in alternate years

Fall ENGN1120 S01 15617 TTh 1:00-2:20(10) (A. Peterson)

ENGN 1140. Chemical Process Design.

Chemical process synthesis, flow charting, and evaluation of design alternatives. Process equipment sizing as determined by rate phenomena, economics, and thermodynamic limitations. Introduction to optimization theory. Applications of these principles to case studies. Prerequisites: ENGN 1110, 1130; ENGN 1120 (may be taken concurrently)

Spr ENGN1140 S01 24975 TTh 6:30-7:50(12) (G. Hradil)

ENGN 1210. Biomechanics.


Fall ENGN1210 S01 15885 MWF 2:00-2:50(07) (C. Franck)

ENGN 1220. Neuroengineering.

Course Goals: To develop an advanced understanding of how signals are generated and propagated in neurons and neuronal circuits, and how this knowledge can be harnessed to design devices to assist people with neurologic disease or injury. Fundamental topics in neuronal and neural signal generation, recording methods, and stimulation methods. Clinical/Translational topics include multiple clinically available and emerging neurotechnologies. Prerequisites: NEUR 0010 and ENGN 0510; or instructor permission, which may be provided after discussion with course faculty

Spr ENGN1220 S01 24977 TTh 1:00-2:20(10) (L. Hochberg)

ENGN 1230. Instrumentation Design.

Sensors for pressure, temperature, blood flow, muscle and neural activity. Amplifiers, filters, and A/D-D/A converters. The use of computers in monitoring and controlling physiological processes. Feedback controllers for temperature, flow rate, and experimental stimuli. Intended as a design course primarily for biomedical engineers. Lab times to be arranged. WRIT

Fall ENGN1230 S01 15799 MWF 10:00-10:50(03) (J. Daniels)

ENGN 1300. Structural Analysis.

A unified study of truss, beam, frame, plate, and shell structures. Emphasis on principles of virtual work and numerical methods of elastic structural analysis by matrix methods. Includes calculation of deflections and reactions in beam structures, beam vibrations, and column buckling. Theorems of plastic limit analysis. Plate bending. Membrane stresses and local bending effects in axially symmetric shells. Prerequisite: ENGN 0310

Spr ENGN1300 S01 24990 MWF 9:00-9:50(02) (D. Odeh)
ENGN 1340. Water Supply and Wastewater Treatment
The hydrological cycle, surface water hydrology, ground water hydrology. Emphasis on the formulation of mathematical models of various flow problems and their solution by analytical or numerical means. Typical problems: open channel and river flows; flood routing; ground water flow in aquifers and into wells. Topics in wastewater treatment plant design: mixing, residence time, aeration, and, bacteriological and chemical treatment processes. Prerequisite: ENGN 0810. Enrollment limited to 40 students. Fall ENGN1340 S01 24976 W 3:00-5:20(14) (I. Kulaots)

ENGN 1360. Soil Mechanics and Principles of Foundation Engineering
Classification and identification of geological materials; mechanical and physical properties and methods of testing. Elements of the analysis of stress and strain in rock and soil masses; theories of failure, theory of seepage. Problems of building foundations; consolidation and settlement; stability of earth slopes and embankments. Includes geotechnical laboratory. Prerequisite: ENGN 0310 Spr ENGN1360 S01 24979 M 3:00-5:20(13) (D. Carchedi)

ENGN 1370. Advanced Engineering Mechanics
A unified study of the dynamics of particles, rigid bodies, and deformable continua. Generalized coordinates and Lagrange’s equations; variational principles; stability of equilibrium; vibrations of discrete systems and of elastic continua, and wave propagation. Prerequisites: ENGN 0040, APMA 0340, or equivalent Spr ENGN1370 S01 24991 TTh 9:00-10:20(08) To Be Arranged

ENGN 1380. Design of Civil Engineering Structures
This course provides an introduction to the design of steel and reinforced concrete structures using ultimate strength methods. Lectures will cover key concepts of design theory, building codes, and standards using examples from real structures. Students will apply concepts through computer labs, homework problems, and a design project. Lectures plus lab. Prerequisite: ENGN 1300 Fall ENGN1380 S01 15625 TTh 6:30-7:50(14) (D. Odeh)

ENGN 1410. Physical Chemistry of Solids
Application of physical chemistry and solid state chemistry to the structure and properties of engineering solids as used in solid state devices, ceramics, and metallurgy. Equilibrium and free energy of heterogeneous systems, thermodynamics of solutions, chemical kinetics, diffusion, catalysis and corrosion, solid state transformations. Case studies taken from industrial practice. Prerequisites: ENGN 0410, 0720 Fall ENGN1410 S01 15626 MW 4:00-5:20(13) (D. Paine)

ENGN 1420. Kinetics Processes in Materials Science and Engineering
This course introduces the basic principles and formulations that describe kinetic processes in materials science and engineering. These are divided into the following principle types of mechanisms: solid state diffusion, reactions at surfaces and interfaces, and phase transformations. The final section of the course applies these principles to several relevant materials processing systems. Prerequisites: ENGN 0410, 0720, 1410 or equivalent Spr ENGN1420 S01 24980 TTh 9:00-10:20(08) (B. Sheldon)

ENGN 1440. Mechanical Properties of Materials
Begins with basic concepts of mechanical properties common to all materials, with some emphasis on dislocation theory. Particular attention is given to the relationship between mechanical properties and microstructures. The different types of mechanical tests that are used in each of these fields are analyzed. Lectures plus laboratories. Prerequisite: ENGN 0410 Spr ENGN1440 S01 24981 TTh 10:30-11:50(09) (N. Padture)

ENGN 1450. Properties and Processing of Electronic Materials
Focuses on the science of electronic materials, the materials at the heart of modern microelectronics and optoelectronics. Addresses fundamental issues controlling their properties, processing, and reliability. Topics include band structure of semiconductors, basic devices structures (junctions and transistors), sputter deposition, molecular beam epitaxy, chemical vapor deposition, ion implantation, oxidation, and issues affecting reliability. Materials challenges that must be resolved for future generations of electronic devices Spr ENGN1450 S01 24982 TTh 1:00-2:20(10) (D. Paine)

ENGN 1470. Structure and Properties of Nonmetallic Materials
A study of the structure and properties of nonmetallic materials such as glasses, polymers, elastomers, and ceramics. The crystal structure of ceramics and polymers, and the noncrystalline networks and chains of glasses, polymers, and elastomers and the generation of microstructures and macrostructures are considered. The mechanical, chemical, electrical, magnetic, and optical properties and their dependence on structure are developed. Laboratory. Prerequisite: ENGN 0410 Fall ENGN1470 S01 15627 Th 5:00-6:20(15) (N. Padture)

ENGN 1480. Metallic Materials
The microstructure of metals, microstructural evolution during processing, and the relationships between the microstructure and the physical properties of the material. Crystallography and x-ray diffraction. Crystalline defects, dislocations, grain boundaries, and their effects on mechanical and other properties. Solid state diffusion and solid state phase transformations. Oxidation and corrosion. Laboratory. Prerequisite: ENGN 0410, 1410 Spr ENGN1480 S01 24983 TTh 10:30-11:50(09) (S. Kumar)

ENGN 1490. Biomaterials
Biomaterials science, the study of the application of materials to problems in biology and medicine, is characterized by medical needs, basic research, and advanced technological development. Topics covered in this course include materials used in bone and joint replacement, the cardiovascular system, artificial organs, skin and nerve regeneration, implantable electrodes and electronic devices, drug delivery, and ophthalmology. Enrollment limited to 40 students Fall ENGN1490 S01 15628 W 3:00-5:20(14) (G. Palmore)
ENGN 1600. Design and Implementation of Very Large-Scale Integrated Systems. VLSI (Very Large Scale Integration) CMOS (Complementary Metal Oxide Semiconductor) technology is the main driver of our digital revolution. The goal of the course is to learn how to design and implement VLSI digital circuits and optimize them with respect to different objectives such as area, speed, and power dissipation. Design and analysis will be carried out using computer-aided tools. Prerequisite: ENGN 1630, or instructor permission.

ENGN 1610. Image Understanding. Image processing is a technology experiencing explosive growth; it is central to medical image analysis and transmission, industrial inspection, image enhancement, indexing into pictorial and video databases, e.g., WWW, and to robotic vision, face recognition, and image compression. This senior-level undergraduate course covers theoretical underpinnings of this field and implementation of practical MATLAB image processing projects. ENGN 1570 is recommended but not required.

ENGN 1620. Analysis and Design of Electronic Circuits. Elementary device physics and circuit characteristics of semiconductor diodes, bipolar junction transistors (BJTs), and field effect transistors (FETs). Analysis and design of practical circuits using discrete semiconductor devices. Constraint on and techniques for linear integrated circuit (IC) design and the use of linear ICs as circuit building blocks. Laboratory. Prerequisites: ENGN 0510, 0520 or equivalent.

ENGN 1630. Digital Electronics Systems Design. Fundamentals of digital logic design including: Boolean algebra, gates, truth tables, logic families, flip-flops, finite state machines, memory, and timing. More advanced topics include A-D conversion, binary arithmetic, CPU organization, programmable logic (CPLDs and FPGAs), and VHDL. Extensive laboratory requirement. Not open to first-year students; permission required for sophomores.

ENGN 1640. Design of Computing Systems. This course introduces the main concepts and techniques for designing computing systems. Topics covered include assembly language, instruction set design, pipelining, superscalar and VLIW processor design, memory subsystem design, and I/O interfacing. Laboratory topics include programmable logic devices, hardware design languages, and implementation of a bookable version of the pipelined MIPS processor. Laboratory emphasizes design optimizations with respect to speed and area. Prerequisite: ENGN 1630 or passing of a quiz on basic digital logic concepts, or instructor permission.

ENGN 1650. Embedded Microprocessor Design. This is a combined lecture and design project course offering experience in the open-ended design of an electronic product or system employing an embedded microprocessor from small-group design teams. Activity includes product specification, circuit design, programming, printed circuit layout, construction, packaging, and functional assessment. Teams are expected to produce functional products. Lecture topics will be adjusted to reflect the chosen design problems. Emphasis is placed on the criteria for choosing processors and on the interfaces and programming requirements of the system. Primarily for senior concentrators. Experience with C programming is helpful but not required. Prerequisite ENGN 1630 or permission of the instructor.

ENGN 1680. Design and Fabrication of Semiconductor Devices. Contemporary practice in the design and fabrication of semiconductor devices. The realization of basic electronic device functions on the semiconductor platform is a central theme in a coordinated lecture and laboratory course. Topics include microcircuit photolithography; layout and design scaling rules for integrated circuits; and techniques in semiconductor device fabrication and film processing as they apply to ULSI circuit manufacturing. Prerequisite: ENGN 1590 or permission.

ENGN 1700. Applied Thermodynamics. Control volume formulations of thermodynamic principles applied to the study of compressible fluids as working fluids in engines and thermal systems. Applications include compressors and turbines, gas turbines, jet, ramjet and rocket engines, steam plants, refrigeration, and internal combustion engines. Combustion and flames are also considered. Prerequisites: ENGN 0720 and 0810


ENGN 1740. Computer Aided Visualization and Design. Provides instruction in the application of computers to the design methods in engineering. Hands-on experience in use of CAD/CAE software packages for geometric modeling, visualization, and drafting. Emphasis on applications to solids and structural problems. Independent design projects are carried out. Course counts as an ABET upper-level design course for mechanical and civil engineering concentrators. Prerequisite: ENGN 0310.


ENGN 1860. Advanced Fluid Mechanics. Aims to give mechanical engineering students a deeper and more thorough grounding in principles and basic applications. Topics include review of the conservation principles; inviscid flow; viscous flow, including aerodynamics lubrication theory; laminar boundary layers; wave motions and wave drag. Lectures, assignments, computational projects, and laboratory. Prerequisites: ENGN 0720 and 0810.

ENGN 1930B. Photonics and Biophotonics. Biophotonics deals with interactions between light and biological matter that combine lasers, photonics, nanotechnology, and biotechnology. The course will introduce the biology/photonics interface and discuss topics like photobiology, biosensors, and optical imaging and detection. Prerequisites: science and engineering background.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ENGN 1930C. Civil Engineering Project
Provides a major design experience for civil engineering students. This experience involves an open-ended design problem that requires teamwork and the integration of understanding developed in upper-level courses in civil engineering concentration. Intended for students in their senior year. Offered as a half-credit course each semester
Fall ENGN1930CS01 15888 W 6:30-7:50 (J. Marton)

ENGN 1930D. Civil Engineering Project
Provides a major design experience for civil engineering students. This experience involves an open-ended design problem that requires teamwork and the integration of understanding developed in upper-level courses in civil engineering concentration. Intended for students in their senior year. Offered as a half-credit course each semester
Spr ENGN1930CS01 26021 Arranged (D. Odeh)

ENGN 1930G. Entrepreneurship I
Teams of students from Engineering, COE and other technical and non-technical disciplines form simulated high tech startup companies working on mentor-defined opportunities, from conception to commercialization. Intellectual property, marketing, definition of a product requirements document, human factors (including team building), safety and environmental concerns, and legal concerns are emphasized. Students in the COE Technology Management Track should complete ENGN 1010 prior to this course. Enrollment in the course is limited and students must fill out a formal application (though COE tech track seniors are automatically approved). The course meets TR from 2:30-3:50, and other outside meeting hours will be arranged. WRIT
Fall ENGN1930CS01 15711 TTh 2:30-3:50(11) (S. Petteruti)

ENGN 1930H. Entrepreneurship II
Please see ENGN 1930G for course description. Enrollment limited to 24. WRIT
Spr ENGN1930S01 25090 TTh 2:30-3:50(11) (S. Petteruti)

ENGN 1930L. Biomedical Engineering Design, Research and Modeling
This course introduces students to design, modeling and analysis of biological systems. The first portion of the course focuses on linear systems. Research projects in design will be analyzed. The course also introduces students to the Matlab programming language, which allows them to implement the design models discussed in class. For seniors only
Fall ENGN1930LS01 15623 MW 8:30-9:50(02) (A. Tripathi)

ENGN 1930M. Industrial Design
Brown engineering and RISD industrial design faculty lead product development teams through a design cycle. Engineers explore industrial design, designers gain some insight into engineering, and both groups can apply their skills to challenging problems. Frequent presentations, field trips, critiques, and labs. Preference given to seniors. Prerequisites: completion of engineering core. Enrollment limited to 18 students
Fall ENGN1930S01 15638 Arranged (C. Bull)

ENGN 1930N. Introduction to Magnetic Resonance Imaging and Neuroimaging
Magnetic resonance imaging (MRI) is a powerful tool for investigating the biological structure and functional dynamics across an incredibly broad spatial and temporal scale. This course will provide an understanding of the basic physical principles of magnetic resonance; including signal generation, detection and contrast mechanisms; as well as image acquisition techniques and reconstruction methods. This course is aimed at undergraduate and graduate students from a variety of disciplines, including: Engineering, Computer Science, Applied Mathematics, Physics, Cognitive Science and Neuroscience as well as medical students and residents. Students should have a basic understanding of matrix mathematics and familiarity with the concepts of magnetism and waves
Fall ENGN1930NS01 15629 MWF 1:00-1:50(06) (S. Deoni)

ENGN 1930S. Land Use and Built Environment: An entrepreneurial view
Through the use of readings, group discussions, students presentations and guest lectures, students examine and challenge the analytical and structural frameworks which underlie and support public and private land and use the urban and suburban built environments. Students build an understanding and theory of how social, political, governmental and economic forces interact with society's present and future physical space needs
Fall ENGN1930SS01 16171 W 9:00-11:50(02) (J. Mittlemann)

ENGN 1930U. Renewable Energy Technologies
Analysis of the thermodynamics, physics, engineering and policy issues associated with renewable and non-renewable energy technologies with applications appropriate to both the developed and the developing world. Specific technologies that will be studied include Fossil fuels, Wind, Solar, Hydro, Biomass and Nuclear, Energy consumption technologies, such as power generation and transportation will also be studied. Some technical background, such as ENGN 0030, 0040 and 0720, is strongly recommended
Spr ENGN193ULS01 24997 TTh 2:30-3:50(11) (C. Bull)

ENGN 1931D. Design of Mechanical Assemblies
An introduction to the design and development of mechanical assemblies suitable for production over a range of volumes, from prototypes to high volume manufacture. The course is intended to present an overview of basic machine components and manufacturing processes from the perspective of a design engineer in a contemporary industrial setting. The objective of which being to provide students the background necessary to create mechanical assemblies from blank-page concepts through to production ready designs. Coursework will include both theoretical and experimental exercises as well as two group projects working on a mechanical assembly produced via high volume manufacture. Prerequisite: ENGN 0310, 1740. Enrollment limited to 20
Fall ENGN1931DS01 16197 M 6:00-8:30PM(18) (B. Burke)

ENGN 1931E. Writing Science
This seminar focuses on communicating scientific and technical information to a lay audience in ways that engage and inform. The focus is on writing about new findings, scientific disputes and policy debates, along with producing profiles, feature articles, op-eds and blog posts. Students who complete this seminar will learn how to turn a collection of facts into a story, ways of explaining complex topics in simple terms, and how to differentiate between crucial technical details and clutter. Proficiency in English is assumed. Permission from the instructor is required. Preference will be given to seniors and graduate students. Enrollment limited to 15. WRIT
Fall ENGN1931ES01 16456 W 3:00-5:20(14) (C. Dean)

ENGN 1931F. Introduction to Power Engineering
An introduction to the generation, distribution and use of electrical energy in three-phase balanced systems. Topics include: properties of magnetic fields and materials; magnetic reluctance circuits; phases and the properties of balanced three-phase voltage and current lines; brushless DC motors; power semiconductor switches; generators, transformers, and transmission lines; induction motors; and the properties of solar photovoltaic sources and microinverters. Laboratory project. Prerequisites: ENGN 0510 and 0520
Fall ENGN1931FS01 26041 MWF 1:00-1:50(08) (W. Patterson)

Independent Study in Engineering. Instructor permission required after submitting online proposal (http://brown.edu/academics/engineering/content/independent-study). Section numbers vary depending on concentration. Please check Banner for the correct section number and CRN to use when registering for this course

Independent Study in Engineering. Instructor permission required after submitting online proposal (http://brown.edu/academics/engineering/content/independent-study). Section numbers vary depending on concentration. Please check Banner for the correct section number and CRN to use when registering for this course

An introduction to methods of mathematical analysis in physical science and engineering. The first semester course includes linear algebra and tensor analysis; analytic functions of a complex variable; integration in the complex plane; potential theory. The second semester course includes probability theory; eigenvalue problems; calculus of variations and extremum principles; wave propagation; other partial differential equations of evolution

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ENGN 2020. Mathematical Methods in Engineering and Physics II. An introduction to methods of mathematical analysis in physical science and engineering. The first semester course includes linear algebra and tensor analysis; analytic functions of a complex variable; integration in the complex plane; potential theory. The second semester course includes probability theory; eigenvalue problems; calculus of variations and extremum principles; wave propagation; other partial differential equations of evolution.

ENGN 2110. Business Engineering Fundamentals I. The course examines core concepts in distinct areas through three modules: (1) intellectual property and business law, (2) technical marketing and (3) finance. All aspects of intellectual property will be treated, models on how to analyze markets will be discussed, culminating in a finance module which utilizes accounting fundamentals and models to perform financial analysis.

ENGN 2120. Business Engineering Fundamentals II. The course examines core concepts in distinct areas through three modules: (1) organizations, leadership, and human capital, (2) implementing radical technology change, and (3) engineering ethics. Organization, leadership and human capital focuses on the attributes of effective leadership and the tactical operation of start-up companies, implementing radical technological change centers on disruptive technologies and their adaptation in the marketplace, and ethics treats the issues that arise in small start-up organizations with an emphasis on the interface of ethics and environmental, health and safety issues.

ENGN 2130. Innovation and Technology Management I. Examines core concepts through four modules: (1) Industry Dynamics of Technological Innovation, (2) Formulating Technological Innovation Strategy, (3) Implementing Technological Innovation Strategy, and (4) Early Commercialization and Deployment. Industry Dynamics of innovation will explore some of the drivers of technology innovation. Implementing Technological Innovation Strategy explores execution issues concerning the flow of technology and innovation from concept to physical product or service. Early Commercialization and Deployment will focus on more salient strategic and operational issues related to commercial readiness and roll-out of a technology-based product or service. Emphasis will be on technology oriented entrepreneurial enterprises, but exploration will also include larger more established organizations.

ENGN 2140. Innovation and Technology Management II. Explores concepts relevant to the management of operations in industrial enterprises with an emphasis on technology-oriented firms. Topics fall into three basic modules: (1) Capacity Planning, (2) Industrial Engineering, and (3) Materials & Resource Engineering. Capacity Planning will focus on capacity considerations in manufacturing and service organizations. Industrial Engineering will examine optimizing plant and process layouts. Materials & Resource Engineering will cover various aspects of planning and scheduling material, labor, and work center capacity. Inventory management techniques will also be introduced and examined as will concepts such as materials requirements planning and aggregate planning.

ENGN 2150. Technology Entrepreneurship and Commercialization I. ENGN 2150 and the spring ENGN 2160 form a sequence that develops the knowledge of, and embeds the skills for, technology-based entrepreneurship. While 2150 has helped you to examine science and technology sources, and create a portfolio of opportunities from these, this course continues by developing selected opportunities into a compelling business case for the creation of a high growth potential new venture. Once again, learning is by a combination of lectures and “experiential learning”, with work undertaken as a guided two-semester project. Prerequisite: ENGN 2150. Enrollment limited to 30 graduate students in the IMEE program.

ENGN 2160. Technology Entrepreneurship and Commercialization II. ENGN 2160 and the prerequisite fall course 2150 form a course sequence that develops the knowledge of, and embeds the skills for, technology-based entrepreneurship. While 2150 has helped you to examine science and technology sources, and create a portfolio of opportunities from these, this course continues by developing selected opportunities into a compelling business case for the creation of a high growth potential new venture. Once again, learning is by a combination of lectures and “experiential learning”, with work undertaken as a guided two-semester project. Prerequisite: ENGN 2150. Enrollment limited to 30 graduate students in the IMEE program.
ENGN 2410. Thermodynamics of Materials.
Fall ENGN2410 S01 15644 WF 4:00-5:20(14)  (D. Paine)

ENGN 2420. Kinetic Processes and Mechanisms in Materials Science.
Continuum and atomistic descriptions of diffusion in solids. Reactions involving surfaces and interfaces, including evaporation, adsorption, grain growth, and coarsening. Phase transformation kinetics, including nucleation, growth, solidification, spinodal decomposition, and martensitic transformations. Analysis of systems with multiple kinetic mechanisms (typical examples include oxidation, crystal growth, and sintering).
Prerequisite: background in basic thermodynamics. Recommended: ENGN 1440 or equivalent
Spr ENGN2420 S01 25004 MW 3:30-4:50(10)  (E. Chason)

ENGN 2430. Deformation Behavior of Materials.
Linear elasticity as applied to isotropic and anisotropic materials; yield criteria including Von Mises, Tresca, Mohr-Coulomb, and Hill. Plastic deformation and slip. Dislocation theory. Mechanisms of hardening. Microstructural models of ductile, intergranular, and cleavage fracture. Toughening mechanisms. Creep. Fatigue. Prerequisites: ENGN 0410 and ENGN 1440 or equivalent
Fall ENGN2430 S01 16185 MW 1:00-2:20(10)  (S. Kumar)

This course covers fundamental topics in pattern recognition and machine learning. We will consider applications in computer vision, signal processing, speech recognition and information retrieval. Topics include: decision theory, parametric and non-parametric learning, dimensionality reduction, graphical models, exact and approximate inference, semi-supervised learning, generalization bounds and support vector machines.
Prerequisites: basic probability, linear algebra, calculus and some programming experience
Spr ENGN2520 S01 25225 TTh 2:30-3:50(11)  (P. Felzenszwalb)

An introduction to the basics of linear, shift invariant systems and signals. Quantization and sampling issues are introduced. Discrete time and DFT properties, fast DFT algorithms, and spectral analysis are discussed. IIR and FIR digital filter design is a focus; stochastic and deterministic signals are introduced. MATLAB exercises are a significant part of the course
Fall ENGN2530 S01 15646 MW 11:00-11:50(04)  (H. Silverman)

ENGN 2560. Computer Vision.
An interdisciplinary exploration of the fundamentals of engineering computer vision systems (e.g., medical imaging, satellite photo interpretation, industrial inspection, robotics, etc.). Classical machine vision paradigms in relation to perceptual theories, physiology of the visual context, and mathematical frameworks. Selections from Gestalt psychology, Gibsonian approach primate visual pathways, edge-detection, segmentation, orientation-selectivity, relaxation-labeling, shading, texture, stereo, shape, object-recognition
Spr ENGN2560 S01 25588 TTh 1:00-2:20(10)  (B. Kimia)

ENGN 2660. Physics and Technology of Semiconductor Heterostructures.
Covers, largely from an experimental point of view, topics of current interest in semiconductor heterostructure physics and technology; magnetotransport in two-dimensional electron gas; integer and fractional quantum Hall effects; resonant tunneling and superlattice transport; optical and transport properties of quantum wires and dots; heterostructure-based devices; other topics of student interest. Prerequisites: PHYS 1410 or equivalent quantum mechanics, ENGN 1590 or introductory device course helpful but not required
Spr ENGN2660 S01 25007 MWF 2:00-2:50(07)  (A. Zaslavsky)

ENGN 2730. Advanced Thermodynamics I.
Fundamental principles of macroscopic equilibrium; thermodynamic stability; Gibbs relations and chemical thermodynamics; applications to various systems, including fluids, solids, and magnetic and dielectric materials. Fundamental principles of macroscopic nonequilibrium thermodynamics (irreversible processes). Entropy production; Curie’s principle; Onsager-Casimir reciprocal relations; applications to transport and relaxation phenomena in continuous systems.
Fall for 2012, interested students must register for CHEM 2010 S01 (CRN 15017).
Fall ENGN2730 S01 16370 Arranged  "To Be Arranged"

ENGN 2740. Advanced Thermodynamics II.
Introduction to the statistical mechanics of equilibrium phenomena for classical and quantum-mechanical systems. Ensemble theory; fluctuations; statistical interpretation of the laws of thermodynamics; applications to ideal gases, chemical equilibrium, simple crystals, magnetic and dielectric materials, radiation, and condensation phenomena.
For spring 2013, interested students must register for CHEM 2020 S01 (CRN 24927).

ENGN 2810. Fluid Mechanics I.
Formulation of the basic conservation laws for a viscous, heat conducting, compressible fluid. Molecular basis for thermodynamic and transport properties. Kinematics of vorticity and its transport and diffusion. Introduction to potential flow theory. Viscous flow theory; the application of dimensional analysis and scaling to obtain low and high Reynolds number limits.
For fall 2012, interested students must register for APMA 2410 S02 (CRN 15353).
Fall ENGN2810 S01 16366 Arranged  "To Be Arranged"

ENGN 2820. Fluid Mechanics II.
Introduction to concepts basic to current fluid mechanics research: hydrodynamic stability, the concept of average fluid mechanics, introduction to turbulence and to multiphase flow, wave motion, and topics in inviscid and compressible flow
Spr ENGN2820 S01 25226 MW 8:30-9:50(02)  (P. Vlahovska)

ENGN 2910G. Topics in Translational Research and Technologies.
To improve human health, engineering and scientific discoveries must be explored in the context of application and translated into human/societal value. Translational research is creating a fundamental change in the way basic science and engineering research has operated for decades, breaking down the literal and figurative walls that separate basic scientists/ engineers and clinical researchers. Such discoveries typically begin at “the bench” with basic research—and in the case of medicine—then progress to the clinical level, or the patient’s “bedside.” This seminar course will utilize case studies to demonstrate to students how the translational research unfolds. Lectures will be delivered by clinicians, medical researchers, engineers, and entrepreneurs, with case studies focused on topics ranging from value creation, IRB, HIPAA, FDA approval, etc
Spr ENGN2910G001 25668 F 3:00-5:20(15)  (G. Jay)
Spr ENGN2910G003 25781 F 3:00-5:20(15)  (R. Hurt)

ENGN 2910L. Chemical and Transport Processes in the Environment.
This course will cover fundamental properties and processes that are important for the fate and transport of chemicals in the environment. Topics will include phase-partitioning, and solution chemistry. Emphasis will be placed on natural and engineered environmental systems, including a range of environmentally relevant media (e.g. water, air, soil/sediments, plants, organisms). Conceptual understanding of chemical structure and its role in environmental transport will be highlighted, while quantitative approaches will be used to solve problems.
For spring 2012, interested students must register for APMA 2410 S02 (CRN 15353).
Fall ENGN2910L S01 15887 TTh 9:00-10:20(08)  (R. Hurt)

ENGN 2910M. Biosensors and Applied Microfluidics.
This course will acquaint students with two modules: 1) new approaches to detection and quantification of biological molecules for diverse purposes ranging from medical diagnostics to food safety to defense, 2) processes at the microscale which can be translated into applications. The topics will include sensing platforms, devices, instrumention, biomolecular engineering of probe molecules, quantitative evaluation, separations, sample stacking, DNA/protein sizing and diagnostic devices for use in
developing countries. Lectures, assignments, a group design project and a laboratory will acquaint students with the state-of-the-art in biosensors and applied microfluidics. The course is relevant to physicists, chemists, biologists and engineers

ENGN 2911F. Topics in Emerging and Breakthrough Technologies. No description available


Driven by recent innovations in Field-Programmable Gate Arrays (FPGAs), reconfigurable computing offers unique ways to accelerate key algorithms. FPGAs offer a programmable logic fabric that provides the necessary hardware and communication assets to exploit parallelism opportunities arising in various algorithms. By mapping algorithms directly into programmable logic, FPGAs accelerators can deliver 10X-100X performance increases over generic processors for a large range of application domains. The class will describe FPGA architectures, reconfigurable systems, languages (SystemC) and design tools. The class will show a class of algorithmic techniques (e.g., dynamic programming) that are particularly attractive targets for reconfigurable computing. Mapping specific algorithms from different domains will also be described. These include computer vision, image and signal processing, network security, and bioinformatics algorithms. The class requires basic hardware and programming languages knowledge

ENGN 2912B. Scientific Programming in C++.

Introduction to the C++ language with examples from topics in numerical analysis, differential equations and finite elements. As a prerequisite, some programming knowledge, e.g., MATLAB projects. The course will cover the main C++ elements: data types; pointers; references; conditional expressions; streams; templates; Standard Template Library (STL); design and debugging techniques

ENGN 2912J. Asymptotic and Perturbation Methods.

In this introductory course to perturbation methods, topics covered are inspired by problems in solid mechanics (e.g. ridges and and kinks in thin plates), fluid mechanics (e.g. viscous boundary layers), electrical circuits (van der Pol oscillator), and include regular and singular perturbations, methods of strained coordinates, multiple scales, averaging, WKB, Laplace’s method and the method of steepest descent for approximating integrals, and solutions of partial differential equations. Prerequisite: ENGN 2910 and 2020

ENGN 2970. Preliminary Examination Preparation.

For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

ENGN 2980. Special Projects, Reading, Research and Design.

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

ENGN 2990. Thesis Preparation.

For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

English

ENGL 0110. Critical Reading and Writing I: The Academic Essay.

An introduction to university-level writing. Students produce and revise multiple drafts of essays, practice essential skills of paragraph organization, and develop techniques of critical analysis and research. Readings from a wide range of texts in literature, the media, and academic disciplines. Assignments move from personal response papers to formal academic essays. Fall sections 01, 02, 08, and 11 are reserved for first-year students. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC

ENGL 0120. Critical Reading and Writing II: The Research Essay.

For the confident writer. Offers students who have mastered the fundamentals of the critical essay an opportunity to acquire the skills to write a research essay, including formulation of a research problem, use of primary evidence, and techniques of documentation. Individual section topics are drawn from literature, history, the social sciences, the arts, and the sciences. Enrollment limited to 17. Writing sample may be required. Banner registrations after classes begin require instructor approval. S/NC


An introduction to journalistic writing that focuses on techniques of investigation, reporting, and feature writing. Uses readings, visiting journalists, and field experience to address ethical and cultural debates involving the profession of journalism. Writing assignments range from news coverage of current events to investigative feature articles. Writing sample required. Class will be reduced to 17 after writing samples are reviewed during the first week of class. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC

ENGL 0160. Journalistic Writing.

Designed to familiarize students with the techniques and narrative structures of creative nonfiction. Reading and writing focus on personal essays, memoir, science writing, travel writing, and other related subgenres. May serve as preparation for ENGL 1180. Writing sample may be required. Fall sections 02 and 04 are reserved for first-year students. Enrollment limited. Banner registrations after classes begin require instructor approval. S/NC
ENGL 0201K. Mad in America.
Examines the figure of madness in nineteenth and twentieth century American literature. Mad characters and mad writers raise questions about the vexed relation between self and society, desire and excess, form and disorder, and liberty and the institution. Authors include Poe, Brown, Melville, Gilman, Nabokov, Kesey, Plath, and films by Forman, Kubrick. Enrollment limited to 17. WRIT
Fall ENGL0201K S01 15162 MWF 11:00-11:50(04) (M. Beach)

An examination of novels and other works of literary prose from American protest novels concerned with the struggle of groups defined in terms of race or class to postmodern narratives characterized by formalist attempts to transcend the unbridgeable gap between politics and writing. Authors may include Stowe, Sinclair, Hammett, Agee, Ellison, Pynchon, and Reed. Enrollment limited to 17. WRIT
Spr ENGL0201L S01 24969 MWF 9:00-9:50(02) (N. Conroy)

ENGL 0201M. No Futures: Extinction and the Nation in American Literature.
American literature often narrates the achievement of national identity as an organic process that will be realized in the future. Yet many authors obsess over broken blood lineages, atavism, lost property, and various forms of extinction. This course examines this tension, and asks why the disruption of “futurity” provokes such persistent aesthetic reflections. Readings include Whitman, Hawthorne, Cather, Faulkner, McCarthy. Enrollment limited to 17. WRIT
Spr ENGL0201M S01 24997 MWF 2:00-2:50(07) (D. Hollingshead)

ENGL 0201N. Reading Against the Grain in Nineteenth-Century Literature.
Examines literature that leads the reader to identify and empathize with what the text says, yet also to be suspicious and distrustful about what the text leaves unsaid. How do we reconcile these two conflicting ways of reading? We will explore how nineteenth-century works use this tension to express anxieties of industrial modernity. Works include Coleridge, James, Hardy, Dickens, Melville, Fraud, Hitchcock. Enrollment limited to 17. WRIT
Fall ENGL0201NS01 15335 MWF 10:00-10:50(03) (P. Kim)

ENGL 0201O. Kids on the Run: Literary Outcasts and Outsiders.
How do we grow, and when do we “grow up”? This seminar focuses on uneasy transitions from childhood into adulthood in literature. From paupers to punks, we will rethink alienation, gender and normalcy through changing conceptions of adolescence across two centuries. Authors will include Dickens, Bellow, Nabolok, Welsh, Clowes, Haddon and Aira. Screenings of The 400 Blows, Ratcatcher and Dogtooth. Enrollment limited to 17. WRIT
Spr ENGL0201OS01 25052 MWF 12:00-12:50(05) (J. Simundich)

ENGL 0201P. Disabling Desire: The Erotics of Impairment in Literature and Film.
By alternately demonizing, sentimentalizing, and fetishizing the disabled body throughout modern history, has Western society misrepresented the erotic desires of the physically impaired? Could these desires, if represented, in turn disable “normal” desire? Authors include Milton, Shakespeare, Tennessee Williams, and Ursula LeGuin. Screenings of The Green Knight, selected Canterbury Tales by Chaucer, and texts by Sir Thomas Malory, Spenser, Shakespeare, and Aphra Behn. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows
Fall ENGL0201PS01 14287 TTh 10:30-11:50(09) (E. Bryan)

What formal possibilities were available to poets working after the experimental period of High Modernism? How do their departures from the Modernist definition of the lyric encourage us to re-think the idea of “the poetic”? This course will examine late modern texts that blur the lines between poetry, fiction, and non-fiction. Texts include Berryman, Plath, Merrill, Ashbery, Howe, contemporary writers. Enrollment limited to 17. WRIT
Spr ENGL0201QS01 25023 MWF 11:00-11:50(04) (J. Tabak)

ENGL 0201R. Weird Sisters and Fairy Queens: Women in Shakespearean Drama.
How does Shakespeare write women? To what extent does his plays destabilize or rely conventional assumptions about gender? And how do modern productions and adaptations interpret (or even re-write) his female characters? Texts will include Taming, Midsummer, Hamlet, Macbeth, and several modern adaptations. Film screenings likely to include Hamlet 2000, Midsummer Nights Dream, 10 Things I Hate About You. Enrollment limited to 17. WRIT
Fall ENGL0201RS01 15336 MWF 1:00-1:50(06) (A. Wright)

ENGL 0201T. Strangers in a Strange Land: traveling bodies, traveling tales.
What role does the traveler play in the western imagination? How do the encounters and experiences of the travelling body map onto the larger body politic or its colonial projects? In answering these questions, this course examines hybridity, conversion, identity constructions—racial, religious, and national—and the politics of place. Authors include Shakespeare, Fletcher, Milton, Behn, Defoe, Swift, Melville, Achebe and Coetzee. Enrollment limited to 17. WRIT
Spr ENGL0201TS01 25056 MWF 10:00-10:50(03) (M. Zlonke)

ENGL 0210F. Beowulf to Aphra Behn: The Earliest British Literatures.
Major texts and a few surprises from literatures composed in Old English, Old Irish, Anglo-Norman, Middle English, and Early Modern English. We will read texts in their historical and cultural contexts. Texts include anonymously authored narratives like Beowulf and Sir Gawayn and the Green Knight, selected Canterbury Tales by Chaucer, and texts by Sir Thomas Malory, Spenser, Shakespeare, and Aphra Behn. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows
Fall ENGL0210FS01 14287 TTh 10:30-11:50(09) (E. Bryan)

ENGL 0210L. The Arrival of English: Medieval, Renaissance, Early Modern.
In these literary periods, something arrives in England, whether it is the Anglo Saxon invaders, Christianity, French medieval romance, or the continental example of renaissance. Readings include Beowulf, Wanderer, Dream of the Rood, Chaucer’s Canterbury Tales, Spenser’s Shepheard Calendar and Faerie Queene, and Milton’s Paradise Lost. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows. LILE WRIT
Spr ENGL0210LS01 25057 MWF 10:00-10:50(03) (S. Foley)

ENGL 0250F. Shakespeare’s Present Tense.
Shakespeare in Love suggests how Shakespeare was clued in to elite and popular cultures. Current adaptations like O and 10 THINGS I HATE ABOUT YOU demonstrate how Shakespeare provides anachronistic clues to issues of the present. This course will trace such clues by examining the cultural origins and ongoing adaptations of Romeo and Juliet, Hamlet, Othello, Twelfth Night, Henry V, and the sonnets. Enrollment limited to 20 first-year students. FYS
Fall ENGL0250FS01 14340 TTh 10:30-11:50(09) (S. Foley)

ENGL 0400A. Introduction to Shakespeare.
This course will explore issues of concern to Shakespeare’s audiences from his time to ours--love, war, race, sex, good and evil--through a representative selection of plays. Lectures will discuss historical contexts, theatrical conditions, and critical strategies. Designed for students beginning college-level study of Shakespeare. Two lectures and one discussion meeting weekly. Students should register for ENGL 0400A S01 and may be assigned to conference sections by the instructor during the first week of class. LILE WRIT
Fall ENGL0400AS01 14341 MWF 10:00-10:50(03) (C. Kahn)
Spr ENGL0400AS01 24601 MWF 11:00-11:50(04) (J. Feerick)

ENGL 0410A. Literature and the Fantastic.
Considers the changing ways Renaissance, Romantic, Victorian, and late-nineteenth-century authors incorporate non-realistic and fantastic themes and elements in literature. Special attention to the relationship between realism and fantasy in different genres. Readings include stories (gothic, ghost, and adventure), fairy tales, short novels, plays, and poems. Shakespeare, Swift, Brothers Grimm, Blake, Wordsworth, Coleridge, Keats, Tennyson, Robert Browning, Christina Rossetti, Stoker, Lewis Carroll, Dickens, Henry James. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows. LILE WRIT
Fall ENGL0410AS01 14342 MWF 2:00-2:50(07) (V. Ryan)
ENGL 0410F. Devils, Demons, and Do Gooders
Who hasn’t struggled with the problem of good and evil? Who hasn’t wondered what lurks in the dark recesses of the soul? We will investigate how Milton, Mary Shelley, Melville, Poe, and Hawthorne, among others, grapple with these fundamental questions of judgment. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows
Spr ENGL0410F S01 24368 MWF 2:00-2:50(07) (J. Egan)

ENGL 0410J. The Literature of Identity
This course will explore various conceptions of personal identity, with an emphasis on Romanticism. We’ll read Anglo-American philosophical and literary texts (mostly poetry) from the Renaissance through the 19th century, taking some excursions into contemporary theory (queer, feminist, post-structuralist). Writers will include Shakespeare, Montaigne, Locke, Hume, Rousseau, Wordsworth, Keats, Emerson, Browning, and Wilde. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows
Spr ENGL0410J S01 25075 TTh 10:30-11:50(09) (J. Khalip)

ENGL 0450A. Hawthorne and James
An introduction to a pair of writers whose work continues to shape our understanding of American literature and American identity. Focusing on much of their most important work, our aim will be to understand how their conceptions of the relationship between writing and history both complicate and complement each other. Limited to 20 first-year students.
FYS LILE WRIT
Spr ENGL0450A S01 24605 MWF 1:00-1:50(06) (S. Burrows)

ENGL 0450E. Inventing America
One of the distinguishing features of American literature may be its seemingly constant struggle with the idea of America itself. For what, these authors wonder, does/should America stand? We will examine the rhetorical battles waged in some major works over the meaning and/or meanings of America’s national identity. Authors may include Franklin, Hawthorne, and Fitzgerald. Limited to 20 first-year students. Instructor permission required. FYS LILE WRIT
Fall ENGL0450E S01 16323 F 3:00-5:20(15) (J. Egan)

ENGL 0450F. Man and Machine
Examines the fascination with "human" machines and "mechanical" humans in the 18th, 19th, and 20th centuries. What hopes and what fears are associated with human machines? How has the automation challenged fundamental concepts such as "subjectivity," "intelligence," "consciousness," and "progress"? Authors include Henry David Thoreau, Henry Adams, Thomas Carlyle, Mary Shelley, H.G. Wells, E.M. Forster, William Gibson. Enrollment limited to 20 first-year students.
Fall ENGL0450F S01 14343 MWF 11:00-11:50(04) (V. Ryan)

ENGL 0600C. The Victorian Novel
Considers the Victorian novel with an emphasis on its many forms, including the social-problem novel, bildungsroman, sensation novel, detective novel, and multiplot novel. Topics covered include the nature of realism, serial publication, empire, the "new woman," industrialization, the "condition of England," science and technology, and the role of the artist. Novels by Charlotte Brontë, Charles Dickens, Elizabeth Gaskell, George Eliot, Wilkie Collins, Thomas Hardy, Anthony Trollope. Students should register for ENGL 0600C S01 and may be assigned to conference sections by the instructor during the first week of class. Banner registrations after classes begin require instructor approval.
Spr ENGL0600C S01 24606 TTh 9:00-10:20(08) (V. Ryan)

ENGL 0600E. British Romanticism.
Readings in British Romantic writing, canonical and noncanonical, emphasizing how historical and political change, philosophical disposition, and subjective consciousness become articulated in verse and prose. Literary representations of and responses to the French Revolution, the Industrial Revolution, the struggle against black slavery. Blake, Wollstonecraft, Olaudah Equiano, William Wordsworth, Dorothy Wordsworth, Coleridge, Percy Shelley, Mary Shelley, Byron, Keats, Clare. LILE
Fall ENGL0600E S01 14456 TTh 2:30-3:50(11) (J. Khalip)

ENGL 0600G. American Fiction and the Sea.
This class examines one of the most distinctive of literary genres; the sea tale. These narratives are interested not only in how we know what we know, but in the ways we imagine what we don’t know. Novels and films to be discussed will include Moby-Dick; Lord Jim; Aquriue, the Wrath of God; Apocalypse Now; The Witness
Fall ENGL0600G S01 14838 TTh 10:30-11:50(09) (S. Burrows)

ENGL 0600Q. Unstable Subjects: Race and Meaning in Contemporary African American Literature.
What are the stakes involved in continuing to define (African) American literature through a racial lens? This course familiarizes students with those contemporary writers who employ the idea of blackness as a speculative trope in order to question modes of racial knowing. Authors include but are not limited to James Baldwin, Norman Mailer, and David Henry Hwang. DVPS
Fall ENGL0600Q S01 16071 TTh 2:30-3:50(11) (R. Clytus)

ENGL 0610E. Postcolonial Literature.
Examines fiction, drama, poetry, travel writing, and cultural theory by contemporary writers from former colonies of the British Empire. We study works by Anglophone African, Caribbean, and South Asian writers. Issues include: nationalism and globalization; cultural identity and diaspora; individual interiority and collective aspirations; literary form and the very idea of "postcolonial" literature. Authors include: J. M. Coetzee, Amitav Ghosh, V. S. Naipaul, Michael Ondaatje, Caryll Phillips, Derek Walcott, Zoë Wicomb. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows. DVPS
Spr ENGL0610E S01 25076 TTh 2:30-3:50(11) (O. George)

ENGL 0610G. American Fiction and Mass Culture.
How have American fiction writers responded to the growing national influence of mass culture industries such as recorded music, film, and television? This course will consider this question by assessing both how writers have imagined the impact of mass culture on American life and how the style of literary writing has evolved in relation to popular media. Authors include F. Scott Fitzgerald, Nathanael West, Toni Morrison, Colson Whitehead, and Michael Chabon. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows.
Spr ENGL0610G S01 25077 TTh 10:30-11:50(09) (R. Murray)

A survey of the history of the novel in the United States from nineteenth-century realism through early twentieth century modernism and later twentieth postmodernism on to the present, with an emphasis upon the relation between the novel and broader aesthetic and intellectual developments. Writers to be considered: Melville, Twain, James, Chesnutt, Hurston, Wharton, Cather, Faulkner, Ellison, Pynchon, Reed, Morrison. Enrollment limited to 30 English concentrators. Others by permission of the instructor, if space allows.
Fall ENGL0610M S01 15122 TTh 1:00-2:20(10) (D. Nabers)

ENGL 0650H. Realism and Modernism.
The novel as a genre has been closely identified with the act of representation. What it means to represent "reality," however, has varied widely. This seminar will explore how the representation of reality changes as modern fiction questions the assumptions about knowing, language, and society that defined the great tradition of realism. English and American novels will be the primary focus of our attention, but influential French, German, and Russian works will be studied as well. Limited to 20 first-year students. Banner registration after classes begin requires instructor approval. FYS LILE
Fall ENGL0650H S01 14399 MWF 1:00-1:50(06) (P. Armstrong)

ENGL 0650O. The Terrible Century.
Although the term "terrorism" was coined in the 18th century, and although its contemporary resonance has reached a new pitch, the truly terrible century was arguably the 20th. This course introduces 20th century literature in English through a historical and philosophical examination of terror and terrorism. We will focus on three distinct contexts: British colonialism, South African apartheid, and American civil rights. Readings include Conrad, Bowen, Farrell, O’Casey, Gordimer, Coetzee, Ngugi, Foudulis, Wideman, DeLillo, Ellis. Enrollment limited to 20 first-year students. FYS
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<td>ENGL 0800A</td>
<td>City Novels</td>
<td>T. Bewes</td>
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<td>ENGL 0800C</td>
<td>Global South Asia</td>
<td>R. Reichman</td>
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<td>ENGL 0910G</td>
<td>How Not to Be a Hero (COLT 0810H)</td>
<td>M. Lahir</td>
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<td>ENGL 1140A</td>
<td>The Literary Scholar</td>
<td>L. Stanley</td>
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<td>ENGL 1180B</td>
<td>Digital Nonfiction</td>
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<td>ENGL 1180C</td>
<td>Advanced Creative Nonfiction: Writing with Food.</td>
<td>M. Stewart</td>
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<td>2:00-2:50(07)</td>
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<td>ENGL 1180D</td>
<td>Conceiving and Revealing: Writing the Unsaid</td>
<td>K. Schapira</td>
<td>2.5</td>
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<td>9:00-9:50(02)</td>
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<td>ENGL 1180E</td>
<td>LifeWriting</td>
<td>M. Stewart</td>
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<td>9:00-9:50(02)</td>
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<td>ENGL 1180G</td>
<td>Lyricism and Lucidity</td>
<td>C. Deboer-Langworthy</td>
<td>2.5</td>
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<td>10:30-11:50(09)</td>
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<td>ENGL 1180H</td>
<td>Satire and Humor Writing</td>
<td>C. Degilio</td>
<td>2.5</td>
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<td>10:30-11:50(09)</td>
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ENGL 1180J. Tales of the Real World. For the advanced writer, this section offers a chance to practice the pleasures and challenges of nonfiction analysis and story-telling in the forms of literary journalism, historical narrative, and personal essay or memoir. Inspirations will include Truman Capote, Sebastian Junger, Jamaica Kincaid, and Maxine Hong Kingston. Intensive practice in researching, interviewing, redrafting, and editing. Writing sample required. Prerequisite: ENGL 0130, 0160, 0180, 1140, 1160, 1180, or 1190. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Fall ENGL1180J S01 14675 W 3:00-5:20(14) (E. Taylor)

ENGL 1180K. The Art of Literary Nonfiction. For the advanced writer. Based on Roland Barthes’ notion of the fragment, this workshop features an incremental, literary approach to writing nonfiction, in both traditional and experimental formats. In response to daily assignments, students will produce numerous short pieces and three extended "essays," to be gathered into a chapbook at the end of the course. Writing sample required. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Not open to first year students. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Fall ENGL1180KS01 14676 MWF 2:00-2:50(07) (C. Imbrioglio)

ENGL 1180P. Further Adventures in Creative Nonfiction. For the advanced writer. A workshop course for students who have taken ENGL 0180 or the equivalent and are looking for further explorations of voice and form. Work can include personal essays, literary journalism and travel writing. Readings from Ian Frazier, Joan Didion, David Sedaris, John McPhee, and others. Writing sample required. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Fall ENGL1180PS01 14702 TTh 1:00-2:20(10) (E. Hardy)

ENGL 1180Q. Narrating History. For the advanced writer: the protocols of historical narrative and essay for a general audience. Using the archives of Brown, the Rhode Island Historical Society, and the student’s family (if feasible), each writer will research primary and secondary sources, use interviews and oral histories, to help shape three engaging, instructive true stories of the past. Intensive library work, revisions, and peer editing. Writing sample required. Prerequisite: ENGL 0130, 0160, 0180, 1140, 1160, 1180, or 1190. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Spr ENGL1180QS01 24598 W 3:00-5:20(14) (E. Taylor)

ENGL 1180R. Travel Writing: Personal and Cultural Narratives. For the advanced writer. Helps students build skills in the growing genre of travel writing, including techniques for reading, observing, interviewing, composing, and revising travel pieces. Students will read the best contemporary writing about national and international travel in order to develop their own writing in areas like narrative, setting, characters, and voice. The course will feature interactive discussions, instructor conferences, and workshops. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Fall ENGL1180RS01 14704 Th 4:00-6:20(15) (J. Readey)

ENGL 1180S. Memoir, the Modern Novel. Memoir is an ancient form (Augustine, Rousseau) and an American literary standby (Thoreau, Henry Adams) which has exploded in popularity in the past twenty years. We will study its political implications and experiment with this controversial form whose dimensions have barely been explored. We will write new kinds of memoir, stretching our stories towards biography, fiction and historical narrative. Prerequisite: ENGL 0130, 0160, or 0180. Writing sample required. Enrollment limited to 12. Instructor permission required. S/NC Fall ENGL1180SS01 16476 Th 4:00-6:20(15) (S. Cheever)

ENGL 1190E. Environmental and Nature Writing. For the advanced writer. Helps students build skills in writing about the environment and the natural world, both to convey scientific information and for social advocacy. Texts will include the best of environmental nonfiction as well as films, and the course will feature in-depth discussions, frequent conferences, and writing workshops. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Spr ENGL1190ES01 24702 MW 3:00-4:20(13) (J. Readey)

ENGL 1190L. Creative Nonfiction: Practice and Criticism. For advanced writers. What is Creative Nonfiction? Writers have flocked to it; scholars have questioned it. Does it harm the truth? Is it narrative with too much "I" and too little "Eye"? What makes it significant? To help us explore persistent questions about form, point of view, method, and ethics, readings will include historical examples, recent practitioners, editors, and critics. Intensive reading responses, research, drafting, and revision. Two critical essays; one piece of creative nonfiction. Prerequisite: ENGL0130, 0160, 0180, 1140, 1160, 1180, or 1190. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Spr ENGL1190L S01 24599 TTh 1:00-2:20(10) (E. Taylor)

ENGL 1190M. The Teaching and Practice of Writing: Writing Fellows Program. For students accepted as Writing Fellows, this course offers the study of literary essays and composition theory to help develop their own writing with a critical awareness of the elements of an essay. Students will write essays throughout the semester and will confer with each other for every paper, thereby gaining experience in peer tutoring and becoming better writers through the help of an informed peer. They will also respond to the writing of a cohort of students in another designated Writing Fellows class. Enrollment is restricted to undergraduates who have been accepted into the Writing Fellows Program in the preceding July. Banner registrations after classes begin require instructor approval. S/NC Fall ENGL1190M S01 14705 TTh 10:30-11:50(09) (D. Brown)

ENGL 1190Q. Revolutions and Manifestos: The Discourse of Change. This seminar studies the relationship between manifestos and change and interrogates how manifestos both lead to change and record change. An historical range of political, artistic, and cultural manifestos will demonstrate how form, tone, and language work in discourse of change. Writing will range from critical exposition to original compositions. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC Spr ENGL1190QS01 24703 M 3:00-5:20(13) (L. Stanley)

ENGL 1200. Independent Study in Nonfiction Writing. Tutorial instruction oriented toward some work in progress by the student. Requires submission of a written proposal to a faculty supervisor. Section numbers vary by instructor. Instructor permission required

ENGL 1310B. American Degenerates. Colonial British-Americans were called, among other names, monstrous, wild, impotent, and grotesque. They could not, it was said, produce writing worth reading. We will explore the ways in which American writers embraced and/or challenged these charges of cultural and bodily degeneracy. In the process, we will examine the development of modern notions of literature and identity. Students should register for ENGL 1310B S01 and may be assigned to conference sections by the instructor during the first week of classes.
ENGL 1310V. Chaucer: The Canterbury Tales. Middle English narratives by Geoffrey Chaucer’s band of fictional pilgrims, read in their 14th-century historical and literary contexts. Prior knowledge of Middle English not required. Not open to first-year students. Spr ENGL1310V S01 24610 TTh 9:00-10:20(08) (E. Bryan)

ENGL 1360J. Literatures of Medieval England. In the multilingual society of medieval England, the choice to write in English was culturally loaded. We read, in their cultural contexts, lyrics, romances, debate poems, dream visions, Breton lays, Arthurian histories, women’s devotional writings, and saints’ legends written in Middle English between 1100 and 1485. Readings are in Middle English. Not open to first-year students. LILE Fall ENGL1360J S01 14484 Th 4:00-6:20(15) (E. Rooney)

ENGL 1360T. Eco-Shakespeare. Do Shakespeare’s plays register and respond to the ecological crises of his day, including deforestation, land enclosure, climate change, and animal exploitation? Or, are they complicit in the ideologies that instated these practices? What kind of relation do Shakespeare’s plays envision as underpinning the natural and the cultural realms and how does this differ from modern conceptions? We will seek answers to such questions by considering the plays’ use of pastoral tropes and green worlds, but also by analyzing the inter-animate dynamics they stage between subject and environment. Enrollment limited to 23. Not open to first-year students. LILE Spr ENGL1360T S01 25727 Th 4:00-6:20(15) (J. Feerick)

ENGL 1360V. Shakespeare in Perspective (COLT 1410U). Interested students must register for COLT 1410U S01 (CRN 14406) ENGL 1400. Undergraduate Independent Study in Medieval and Early Modern Literatures and Cultures. Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor permission required

ENGL 1410. American Poetry I: Puritans through the Nineteenth Century. Survey of the invention and development of American poetic traditions. Readings include Bradstreet, Taylor, Wheatley, Freneau, Bryant, Emerson, Poe, Whitman, Melville, Dickinson, and Frost Fall ENGL1410 S01 14486 TTh 1:00-2:20(10) (M. Blasing)

ENGL 1510L. The Novel from Defoe to Austen. How and why did the novel become the dominant literary mode? This course considers the “rise” of the novel during the “long” eighteenth century. Beginning with Behn and Defoe, readings include works by Richardson, Fielding, Sterne, Smollett, Lewis, and Godwin Fall ENGL1510L S01 14865 TTh 10:30-11:50(09) (M. Blasing)

ENGL 1511E. Monsters, Giants, and Fantastic Landscapes. Monsters, giants, and exotic landscapes fill the pages of much writing in English before 1900. We will examine the ways in which a number of writers before 1900 use the strange and the fabulous to suggest new ways of understanding what it means to be normal. Authors may include Columbus, Shakespeare, Mary Shelley, and Poe Fall ENGL1511ES01 14969 MWF 10:00-10:50(03) (J. Egan)

ENGL 1511N. Liberalism, Empire, and the American Novel. An historical consideration of how the novel in the United States addresses the relations between American liberalism and the projection of US sovereign authority into international contexts. Topics to be considered include: Manifest Destiny and the frontier; Reconstruction and the rise of imperial America; World War II and the Cold War; and the United States at the end of History Spr ENGL1511NS01 24712 TTh 10:30-11:50(09) (D. Nabers)

ENGL 1560A. Jane Austen and George Eliot. A survey of the major novels of Austen and Eliot. Readings will also include contemporary reviews and responses, letters, and Eliot’s critical prose, as well as literary theory and criticism addressing questions such as novelistly form, realism and narrativity, the problem of the subject, the politics of aesthetics, and the changing status of the woman writer in the 19th century. Enrollment limited to 20 seniors and juniors. Instructor permission required. LILE Spr ENGL1560A S01 24611 Th 4:00-6:20(15) (E. Rooney)

ENGL 1560R. From Franklinstein to Einstein: Literature and Science from 1800 to 1950. Science and literature as interrelated ways of knowing and learning, focusing on questions of language, observation, interpretation, and value. Themes include utopias and dystopias, evolution and regeneration, man and machine, entropy and chaos, and the relationship between literary imagination and scientific creativity. Readings include poems, plays, novels, and essays (Mary Shelley, Tennyson, Huxley, Arnold, Holmes, Wells, Stoppard) alongside a range of scientific writing (Darwin, Faraday, Huxley, Gould, James Watson). Enrollment limited. First-year students need instructor permission to register; Banner registrations after classes begin require instructor approval Spr ENGL1560R S01 24612 Th 4:00-6:20(15) (V. Ryan)

ENGL 1561N. Hawthorne and the Literary Market. Hawthorne’s career in context of the rise of literary criticism. Particular attention to his relation to sentimentalism and abolitionism, Melville’s publishing, and print cultures in America and Britain. Enrollment limited to 20 Fall ENGL1561NS01 14964 TTh 2:30-3:50(11) (P. Gould)

ENGL 1561O. Lincoln, Whitman, and The Civil War. A literary and cultural history of the Civil War with special emphasis on Whitman’s poetry and Lincoln’s addresses and letters. It focuses on issues of race, democracy, and modernity. Enrollment limited to 20. LILE Spr ENGL1561OS01 24715 Th 3:00-5:20(13) (P. Gould)

ENGL 1600. Independent Study in the Enlightenment and the Rise of National Literatures and Cultures. Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor permission required

ENGL 1710. American Poetry II: Modernism. Study of modernist American poetry. Readings include Pound, Eliot, Stevens, Williams, H.D., Moore, Hughes, and others Spr ENGL1610 S01 24613 TTh 1:00-2:20(10) (M. Blasing)

ENGL 1710I. Harlem Renaissance: The Politics of Culture. The Harlem Renaissance was a remarkable flowering of culture in post-war New York as well as a social movement that advanced political agendas for the nation. This course takes up the relationship between literature and politics by exploring such matters as the urbanization of black America, the representation of the black poor, the influence of white patronage, and the rise of primitivism. Writers may include Hughes, Hurston, Larsen, Fisher, Locke, and McKay. DVPS Spr ENGL1710I S01 24614 TTh 1:00-2:20(10) (R. Murray)

ENGL 1710J. Modern American Literature. Many African writers produce their works in one European language or another. Often, these works are more widely read in Europe and North America than on the African continent itself. This course will use these facts as starting points to explore key themes, antecedents, and intellectual contexts of contemporary African writing. We will examine fiction, drama, poetry, critical prose, and visual materials. Readings by Achebe, Farah, Ngugi, Soyinka, Vera, Wicomb. Films by Davidson, Kouyaté, Teno. DVPS Spr ENGL1710J S01 24615 TTh 10:30-11:50(09) (G. George)

ENGL 1710M. Nationalizing Narratives: Race, Nationalism, and the 20th-C. American Novel. An advanced survey that examines how 20th-century American novels construct the nation as “imagined community” and as “fictive ethnicity.” We focus on the central role that conceptions of race—as well as those of gender and sexuality—play in the novelistic visions of America projected by such authors as Ralph Ellison, William Faulkner, Jessica Hagedorn, and Chang-rae Lee. Not open to first year students. DVPS WRIT Fall ENGL1710MS01 14487 Th 6:30-7:50(14) (D. Kim)

ENGL 1710W. Literary Impressionism. An examination of the role of “literary impressionism” in the transformation of the novel from realism to modernism. Writers studied include Henry James, Joseph Conrad, Stephen Crane, Ford Madox Ford, and Virginia Woolf. Close analysis of their narrative methods for dramatizing consciousness, with attention to the political and ethical implications of impressionism’s focus on the inner life Spr ENGL1710WS01 24717 TTh 1:00-2:20(10) (P. Armstrong)
ENGL 1760G. American and British Poetry Since 1945.
Study of poetry after 1945. Readings include Bishop, Plath, Ashbery, Merrill, O'Hara, Heaney, Larkin, Walcott, Rich, Dove. Enrollment limited to 20. LILE
Fall ENGL1760G S01 14564 F 3:00-5:20(15) (M. Blasing)

ENGL 1760P. "Extravagant" Texts: Experiments in Asian American Writing.
We examine Asian American writings that are difficult, complex, and/or experimental: texts that are, in Maxine Hong Kingston’s phrase, "extravagant." By looking at works that explicitly challenge the generic conventions with which much Asian American literature is usually linked—autobiography, the Bildungsroman, ethnography, realism, and sentimentalism—we try to arrive at a more expansive sense of what the ends of Asian American cultural politics might be. Enrollment limited to 20. Not open to first year students. DVPS WRTI
Fall ENGL1760P S01 14568 F 10:30-11:50(09) (D. Kim)

ENGL 1761P. Yeats, Pound, Eliot.
Readings in the poetry and selected prose of Yeats, Pound, and Eliot. Enrollment limited to 20. LILE
Spr ENGL1761P S01 24817 M 3:00-5:20(13) (M. Blasing)

ENGL 1761R. The Non-Fiction of "Race" in 20th-Century American Culture.
This course examines influential autobiographies and essays about the meaning of race in America across the 20th century. Writers we examine may include W.E.B. DuBois, Chinua Achebe, Richard Wright, Norman Mailer, Richard Rodriguez, Maxine Hong Kingston, Paul Gilroy. Enrollment limited to 20 juniors and seniors. DVPS LILE WRTI
Spr ENGL1761R S01 25078 TTh 6:30-7:50(12) (D. Kim)

ENGL 1761Y. Issues in World Literature.
What is world literature? How does it relate to fields like comparative literature and postcolonial studies? We will read fiction and drama usually featured in this canon, including works by Achebe, Coetzee, Homer, Kafka, Rushdie, Sh光伏, and Walcott. We will also attempt to bring to the critical paradigms that constitute the field, from Goethe’s Weltliteratur to more recent theorizations by Barthes, Bhabha, Colonial, Deleuze, Spivak, etc. Enrollment limited to 20. Not open to first-year students. DVPS
Fall ENGL1761Y S01 14554 TTh 4:00-6:00(15) (M. Lahiri)

ENGL 1762Z. Modernism and Everyday Life.
We will examine modernist literature in the context of art, design, and theories of everyday life to ask about how this period understood ordinary objects and events. Could they be the proper subject matter of art? In the right circumstances, might they actually be art? Writers may include Woolf, Joyce, Williams, Eliot, Stein, James, Freud, de Certeau. Enrollment limited to 20. Not open to first-year students
Spr ENGL1762Z S01 24720 F 3:00-5:20(15) (E. Katz)

ENGL 1800. Undergraduate Independent Study in Modern and Contemporary Literatures and Cultures.
Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor’s permission required

ENGL 1900E. Aesthetics and Politics.
Considers the shifting relationship between art and politics beginning with the development of aesthetics in the Enlightenment and continuing through such 20th-century historical moments as Nazism, modernism, impressionism, socialist realism, postmodernism, and such thinkers as Kant, Hegel, Marx, Adorno, Lyotard, Cixous, Deleuze, Foucault, Bourdieu, Foucault, Barthes, Derrida, Deleuze, Badiou, Lacan. DVPS
Fall ENGL1900E S01 14571 TTh 9:00-10:20(08) (T. Bewes)

ENGL 1900R. Queer Relations: Aesthetics and Sexuality.
A study of the relationship between aesthetic thought and sexuality in a variety of literary and cinematic works. We will supplement our readings with ventures into queer theory, emphasizing how art is related to identity, community, race, gender, and ethics. Authors include Wilde, Pater, James, Winterson, Cole, Guibert, Foucault, Bersani, Edelman. Films by Julien andJarman. DVPS
Fall ENGL1900R S01 14572 TTh 10:30-11:50(09) (J. Khalip)

ENGL 1900X. Introduction to Theories of Narrative.
This course will introduce students to the major narrative theorists of the twentieth-century. Our focus will be on literary examples, such as theories of the novel, but we will also read thinkers who interrogate the workings of narrative in historiography, in cinema and television, and in extra-literary contexts (for example, the struggle of political campaigners to "control the narrative"). Enrollment limited to 20. Not open to first year students
Fall ENGL1900X S01 14963 W 3:00-5:20(14) (E. Rooney)

ENGL 1900Y. Medieval Manuscript Studies: Paleography, Codicology, and Interpretation.
How do you read a medieval manuscript? This course teaches hands-on methodologies for deciphering the material text, including palaeography (history of scripts) and codicology (archaeology of the book); contemporary models of interpreting scribal texts, including editorial theory and analysis of readers’ reception; and medieval concepts of textuality and interpretation, including medieval theories of authorship and the arts of memory. Prior course work in Middle English or Latin or other medieval language recommended. Not open to first-year students. Enrollment limited to 20. Instructor permission required
Spr ENGL1900Y S01 24725 W 3:00-5:20(14) (E. Bryan)

ENGL 1900Z. Neuroaesthetics and Reading.
Analysis of the theories of art, reading, and aesthetic experience proposed by neuroscience and cognitive science in light of traditional aesthetics and contemporary literary theory. Enrollment limited to 20. Instructor permission required
Spr ENGL1900Z S01 24789 Th 4:00-6:20(15) (P. Armstrong)

ENGL 1901A. Poetry, Art, and Beauty (COLT 1430H).
Interested students must register for COLT 1430H S01 (CRN 23708)

ENGL 1901B. Politics and the Novel.
This course will explore how various realist and modernist novels represent political life, both in its practical dimensions and as forms of consciousness (ideologies, world views, attitudes). We will also centrally explore a number of important theoretical and critical writings on the topic of literature and politics, from a range of different political perspectives. Novels will include: Elizabeth Gaskell, Mary Barton; Anthony Trollope, The Prime Minister; E.M. Forster, Howards End; Lionel Trilling, The Middle of the Journey; Ralph Ellison, Invisible Man. Enrollment limited to 20 Fall ENGL1901B S01 16070 W 3:00-5:20(14) (A. Anderson)

ENGL 1901C. Slavery's Optic Glass: The First Century of African American Literature.
Considering the epistemological impact of slavery on nineteenth-century American culture, how does the "peculiar institution" initiate and revitalize macrohistory and microhistory? This course ranges from the poetry of Wheatley to Dunbar's Sport of the Gods, and pays particular attention to the canonical literature of the American Anti-Slavery movement. DVPS
Spr ENGL1901C S01 25435 Th 4:00-6:20(15) (R. Clylus)

ENGL 1901D. Communication Culture and Literary Politics (MCM 1503Q).
Interested students must register for MCM 1503Q S01 (CRN 16459)

ENGL 1950C. Senior Seminar: Who's Afraid of Virginia Woolf?.
This course asks how and why Virginia Woolf haunts our culture, approaching her status as a cultural icon through her novels, essays, diaries and letters. We will explore her work in the contexts of history, modernism, and literary influences, and will examine the dimensions of Woolf's afterlife—a posthumous dynamic that shapes issues in art, politics, and gender. Enrollment limited to 20 seniors concentrating in English.
WRTI
Fall ENGL1950C S01 14959 W 3:00-5:20(14) (R. Reichman)

ENGL 1950D. Senior Seminar: American Literature and the Corporation.
A study of the development of the American novel from the Civil War to the present in light of the emergence of the corporation as the principal unit of economic enterprise in the United States. We will survey corporate theory from Lippmann to Collins, and use it to frame the novel's development from realism through modernism to postmodernism. Corporate theorists to be considered: Lippmann, Dewey, Berle, Drucker, Mayo, Deming, Friedman, Coase. Novelist's to be considered: Twain, Dreiser, Wharton, Stein, Faulkner, Steinbeck, Wright, McCullers, Reed, Gaddis, Morrison. Enrollment limited to 20 senior English concentrators
Spr ENGL1950D S01 24791 W 3:00-5:20(14) (D. Nabers)
ENGL 1991. Senior Honors Seminar in English. Weekly seminar led by the Advisor of Honors in English. Introduces students to sustained literary-critical research and writing skills necessary to successful completion of the senior thesis. Particular attention to efficient ways of developing literary-critical projects, as well as evaluating, incorporating, and documenting secondary sources. Enrollment limited to English concentrations whose applications to the Honors in English program have been accepted. Permission should be obtained from the Honors Advisor in English. S/WC Fall ENGL1991 S01 14965 M 3:00-5:20(13) (E. Katz)

ENGL 1992. Senior Honors Thesis in English. Independent research and writing under the direction of a faculty member. Permission should be obtained from the Honors Advisor in English. Open to senior English concentrations pursuing Honors in English. Instructor permission required Fall ENGL1992 S01 14966 Arranged (E. Katz) Spr ENGL1992 S01 24792 Arranged (E. Katz)

ENGL 1993. Senior Honors Seminar in Nonfiction Writing. This course is designed for students accepted into the Nonfiction Honors Program. It will be run in workshop format, and will focus on research skills and generative and developmental writing strategies for students embarking on their thesis projects. Weekly assignments will be directed toward helping students work through various stages in their writing processes. Students will be expected to respond thoughtfully and constructively in peer reviewing one another's work. Open to seniors who have been admitted to the Honors Program in Literature and Cultures in English. Instructor permission required Fall ENGL1993 S01 14740 Th 4:00-6:20(15) (C. Imbriglio)

ENGL 1994. Senior Honors Thesis in Nonfiction Writing. Independent research and writing under the direction of the student's Nonfiction Writing honors supervisor. Permission should be obtained from the Honors Advisor for Nonfiction Writing. Open to senior English concentrations pursuing Honors in Nonfiction Writing. Instructor permission required Fall ENGL1994 S01 14741 Arranged (C. Imbriglio) Spr ENGL1994 S01 24600 Arranged (C. Imbriglio)

ENGL 2360A. Renaissance Drama. This course explores Early Modern drama: its styles of representation, material conditions, and political engagements, in Marlowe, Jonson, Middleton, Webster, Ford, Beaumont and Fletcher, and others. Drawing on current scholarship, it posits the stage as the site of contests over national identity, royal power, gender ideology, social mobility, nascent capitalism, religious and ethnic differences. Enrollment limited to 15 graduate students. Undergraduate English concentrations may request permission of the instructor. Fall ENGL2360A S01 14585 W 3:00-5:20(14) (C. Kahn)

ENGL 2360T. Representing London circa 1600. We will consider cultural capital in the fastest growing 17th-century western capital, early modern London. How did changing spatial and economic practices impact literary representation? How do cities function as sites of conflicting political, economic, religious and cultural communities? How did urbanization change notions of status, gender, and sexuality? Topics: walking, shopping, crime, service, pollution, traffic, and civic ceremony. Enrollment limited to 15 graduate students. Undergraduate seniors admitted only with permission of instructor Spr ENGL2360T S01 24793 M 3:00-5:20(13) (K. Newman)

ENGL 2400. Graduate Independent Study in Medieval and Early Modern Literatures and Cultures. Section numbers vary by instructor. May be repeated for credit. Instructor's permission required

ENGL 2450. Exchange Scholar Program.

ENGL 2560X. The Rise of the Novel. The seminar would combine the study of eighteenth-century novels [some canonical, like Robinson Crusoe, Clarissa, Tom Jones, and Tristram Shandy; some less so, like amatory fiction and revolutionary fiction of the 1790's] with important theories of and debates about the novel — its origins, rise, and discourses. Enrollment limited to 15 Fall ENGL2560X S01 14623 M 3:00-5:20(13) (M. Rabb)

ENGL 2561E. The Third Person: Narrating the Subject of Modern Literature. The modern subject is typically viewed as self-reflexive, the product of the mass media, advertising, and corporations. What such accounts overlook is that self-reflexivity is primarily a way of seeing the self in narrative terms. This class examines the centrality of narrative to modern conceptions of the self. Writers to include Whitman, Dickens, James, Cather, Beckett, Coetzee, Blanchot, Sartre, Ricoeur. Enrollment limited to 15 graduate students Spr ENGL2561E S01 24794 F 3:00-5:20(15) (S. Burrows)

ENGL 2600. Graduate Independent Study in the Enlightenment and the Rise of National Literatures and Cultures. Section numbers vary by instructor. May be repeated for credit. Instructor's permission required

ENGL 2760B. City, Culture, and Literature in the Early Twentieth Century. Examines the way the city structures early 20th-century culture and history. Through novels, poetry, and cultural criticism, considers a range of topics that include the relation between the city, consciousness, and ideology; the effects of changing urban immigration; and the effects of mobility. Authors include Simmel, Benjamin, Harvey, Williams, Rotella, James, Woolf, Wright, and Eliot. Enrollment limited to 15 graduate students Fall ENGL2760B S01 14625 F 3:00-5:20(15) (E. Katz)

ENGL 2760Y. American Orientalism and Asian American Literary Criticism. We examine critical studies of American Orientalism, influential works of Asian Americanist cultural criticism, American Orientalist texts by white and black authors, and literary texts by Asian American authors. Critics, cultural historians and writers we read may include: Christina Klein, Vijay Prashad, Elaine Kim, Frank Chin, Lisa Lowe, W.E.B. DuBois, Susan Choi, Nam Le, Karen Tei Yamashita. Enrollment limited to 15 graduate students Spr ENGL2760Y S01 24795 T 12:00-2:20(10) (D. Kim)

ENGL 2761A. American Literature and the Cold War. A study of American literature in the context of the broad intellectual culture—strategic, ideological, philosophical, aesthetic, and economic—engendered by the conflict between the United States and the Soviet Union from 1945 to 1991. Special attention will be given to the role of ideology, as a nascent framework for intellectual activity, in the aesthetics of the period. Enrollment limited to 15 graduate students Fall ENGL2761A S01 14967 Th 4:00-6:20(15) (D. Nabers)

ENGL 2800. Graduate Independent Study in Modern and Contemporary Literatures and Cultures. Section numbers vary by instructor. May be repeated for credit. Instructor's permission required

ENGL 2900C. Narrative Theory. Intensive analysis of major contributions to narrative theory and the theory of the novel, from classic statements (Auerbach, Lukacs, Ian Watt, Wayne Booth), through structuralism (Genette, Barthes, Bakhtin), Marxism (Jameson, Moretti), and phenomenology (Ricoeur, Iser), to contemporary positions (including book history and cognitive criticism). Enrollment limited to 15 graduate students Fall ENGL2900C S01 14968 M 3:00-5:20(13) (P. Armstrong)

ENGL 2900P. The Plasticity of Form (MCM 2110F). Interested students must register for MCM 2110F S01 (CRN 14477)

ENGL 2900Q. Liberalism and Aesthetics. This seminar will examine the relation between liberalism as a political philosophy and liberalism in its aesthetic dimensions, focusing in particular on key formal and conceptual elements characterizing a range of realist and modernist engagements with liberal thought. The course will combine consideration of philosophical and theoretical texts with discussion of literary works from the nineteenth and twentieth centuries. Preference will be given to English graduate students. Enrollment limited to 15 Spr ENGL2900Q S01 25445 W 3:00-5:20(14) (A. Anderson)

ENGL 2950. Seminar in Pedagogy and Composition Theory. An experimental and exploratory investigation into writing as a preparation for teaching college-level writing. Reviews the history of writing about writing, from Plato to current discussions on composition theory. Against
this background, examines various processes of reading and writing. Emphasizes the practice of writing, including syllabus design. Priority given to students in the English Ph.D. program. Undergraduates admitted only with permission of instructor

Fall ENGL2950 S01 14712 T 4:00-6:20(15) (J. Readey)

**ENGL 2970. Preliminary Examination Preparation.** For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

**ENGL 2990. Thesis Preparation.** For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

### Environmental Studies

**ENVS 0070C. Transcending Transportation Impacts.** Students will be engaged in interdisciplinary analyses of the life-cycle costs, environmental impacts, technical developments, and policy innovations at the local and regional level. We will discuss technical modifications in vehicles, such as plug-in hybrids, as well as policy and planning on intermodular systems, recycle-a-bike programs, intelligent transportation systems, and other innovations. Enrollment limited to 20 first year students. Instructor permission required. FYS LILE WRIT

Fall ENVS0070CS01 14480 T 4:00-6:20(15) (K. Teichert)

**ENVS 0070D. The Misuse of Scientific Information in American Life.** Many important political issues hinge on matters of science or technology. But most Americans are ill-equipped to assess these matters. As a result, we are vulnerable when scientific information is distorted, cherry-picked or otherwise misused to advance financial, political or even religious goals. This course examines ways these phenomena skew public discussion of climate change, vaccine safety, the teaching of evolution, cancer screening, GM food and a host of other issues. Enrollment limited to 20 first year students. FYS LILE WRIT

Fall ENVS0070DS01 16454 TTh 9:00-10:20(08) (C. Dean)

**ENVS 0110. Humans, Nature, and the Environment: Addressing Environmental Change in the 21st Century.** Offers a survey introduction to contemporary environmental issues and is a “gateway” class for those interested in concentrations in environmental studies/sciences. It is a required course for concentrators. We explore the relationships between human societies and the non-human environment through a survey of topical cases, including: human population growth and consumption, global climate change, toxins, waste streams, water resource management, environmental justice and agro-food justice. This course also analyzes various solutions—social, political, technical, and economic—put forth by institutions and individuals to address questions of environmental sustainability. One 90-minute weekly discussion group required

Fall ENVS0110 S01 14481 MW 10:00-10:50(03) (M. King)

**ENVS 0121. Plants, Food, and People (BIOL 0190H).** Interested students must register for BIOL 0190H S01 (CRN 24017)

**ENVS 0186. Populations in Danger (SOC 0300G).** Interested students must register for SOC 0300G S01 (CRN 25522)

**ENVS 0240. Earth: Evolution of a Habitable Planet (GEOL 0240).** Interested students must register for GEOL 0240 S01 (CRN 24946)

**ENVS 0241. Climate and Climate Change (GEOL 0030).** Interested students must register for GEOL 0030 S01 (CRN 16328)

**ENVS 0455. Coastal Ecology and Conservation.** Enables students to master fundamental ecological concepts and to understand how this knowledge can be used to inform conservation and management. Case studies and field trips will enable students to develop scientific skills and experience the challenges of coastal conservation science. Suitable for students with at least some biology background; the course is aimed at first and second year undergraduates. Expected background: BIOL 0190H, equivalent. Enrollment limited to 15; instructor permission required. Email instructor (Mark_Bertness@brown.edu) to receive course application (due May 1). Admitted students will be able to register for the course in September. WRIT

**Fall ENVS0455 S01 14730 TTh 2:30-3:50(11) (M. Bertness)**

**ENVS 0490. Environmental Science in a Changing World.** Introduces students to environmental science and the challenges we face in studying human impacts on an ever-changing earth system. We will explore what is known, and not known, about how ecosystems respond to perturbations. This understanding is crucial, because natural systems provide vital services (water and air filtration, climate stabilization, food supply, erosion and flood control) that can not be easily or inexpensively replicated. Special emphasis will be placed on climate, food and water supply, population growth, and energy. Lab section meets once per week; it is required of ES concentrators and optional for other students

Fall ENVS0490 S01 14733 TTh 1:00-2:20(10) (S. Porder)

**ENVS 0510. International Environmental Law and Policy.** Introduces students to principles of international environmental law and examines how international organizations, national governments and non-state actors interact to address human impacts on the global environment. Considers effects of treaties, trade agreements and foreign aid on resolution of trans-boundary environmental problems including climate change, marine governance, biodiversity loss and trade in endangered species. S/NC

Fall ENVS0510 S01 14721 MWF 1:00-1:50(08) (C. Karp)

**ENVS 0520. Wild Literature in the Urban Landscape.** Combines deep study of ecological poetry, fiction, essays and other writing with service to schools in the community through exploration of local ecological challenges through both creative and more discursive expressions. The field-work or community component to this course will involve students in conducting workshops that combine literature and ecology in order to better elucidate and understand local issues related to, for example, eco-industrial histories associated with Gorham Silver in Providence and the current state of Masphuag Pond on the Reservoir Triangle, where a public high school, Alvarez, now sits on contaminated soil. Enrollment limited to 22 undergraduates. S/NC

Spr ENVS0520 S01 24193 F 3:00-5:20(15) (R. Franklin)

**ENVS 0580. Foundations of Physical Hydrology (GEOL 0580).** Interested students must register for GEOL 0580 S01 (CRN 16224)

**ENVS 0930A. Appropriate Technology (ENGN 0930A).** Interested students must register for ENGN 0930A S01 (CRN 24998)

**ENVS 1070. The Burden of Disease in Developing Countries (PHP 1070).** Interested students must register for PHP 1070 S01 (CRN 15859)

**ENVS 1100. Statistical Methods for the Natural and Social Environmental Sciences.** An overview of statistical methods commonly utilized in natural and social environmental science, to provide students with training in statistical approaches used in both disciplines. Course topics will include data manipulation, quantitative analysis (descriptive statistics, hypothesis testing, linear models, meta-analysis, time series, spatial data analysis, environmental monitoring, and impact/risk assessment. Examples and problem sets will utilize R to analyze available data-sets. Graphical methods for exploring datasets and presenting results will be emphasized. Students will be evaluated based on weekly lab exercises and associated problem sets, research papers, a final presentation, and contributions to class discussion. Expected: Basic familiarity with algebra and calculus. Students must also register for the lab

Srp ENVS1100 S01 24187 F 10:00-10:50(03) (E. Sudderth)
Srp ENVS1100 S01 24187 MW 10:00-10:50(03) (E. Sudderth)

**ENVS 1110. Estuarine Oceanography (GEOL 1110).** Interested students must register for GEOL 1110 S01 (CRN 15570)

**ENVS 1270. From Magic Mushrooms to Big Pharma: Anthropology of Drugs (ANTH 1880).** Interested students must register for ANTH 1880 S01 (CRN 16160)

**ENVS 1330. Global Environmental Remote Sensing (GEOL 1330).** Interested students must register for GEOL 1330 S01 (CRN 24899)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ENVS 1331. Weather and Climate (GEOL 1350).
Interested students must register for GEOL 1350 S01 (CRN 16353)

Economic analysis of environmental issues in industrialized countries with an emphasis on the implications for designing appropriate policy measures. Topics include: the valuation of environmental goods; the basic theory of economic markets, market failure, and the sources of any failure; private and government solutions to market failure; the role of uncertainty in policy-making; and open trade environments and trans-boundary pollution, on a national and global scale. Applications to issues such as climate change, land use, air and water pollution, and alternative energy. Prerequisite: ECON 1110 or 1130
Fall ENVS1350 S01 14886 TTh 10:30-11:50(09) (S. Nagavarapu)

ENVS 1355. Environmental Issues in Developing Economies.
Examines environmental issues in developing countries, including air and water pollution, land use change, energy use, and the extraction of natural resources. Builds on ENVS 1350 by: delving more deeply into microeconomic theory, linking household/firm decision-making on environmental issues to choices in labor, land, and product markets; developing basic empirical techniques through exercises and a project; and using recent research to illustrate the roles of ecometrics and economic theory in confronting problems at the nexus of the environment, poverty, and economic development. Suggested background: ECON 1630, and ENVS 1350 or ECON 1480. Prerequisites: ECON 1110 or 1130; and ECON 1620
Fall ENVS1355 S01 24188 TTh 10:30-11:50(09) (S. Nagavarapu)

ENVS 1356. Health, Hunger and the Household in Developing Countries (ECON 1530).
Interested students must register for ECON 1530 S01 (CRN 24487)

ENVS 1370. Environmental Geochemistry (GEOL 1370).
Interested students must register for GEOL 1370 S01 (CRN 15270)

ENVS 1400. Sustainable Design in the Built Environment.
Provides students with an in-depth understanding of sustainability, as it relates to planning, engineering, architecture, landscape architecture and green buildings. Students conduct economic and environmental analyses to examine planning, design and building problems and opportunities holistically. Interdisciplinary teams work on applied design projects. Prerequisites: ENVS 0410, or equivalent by permission of instructor
Fall ENVS1400 S01 14881 W 3:00-5:20(14) (K. Teichert)

ENVS 1410. Environmental Law and Policy.
Introduces students to environmental law in the United States. Uses legal decisions and policy frameworks to consider the roles of non-governmental actors in formation and implementation of environmental policy. Students will become familiar with major federal environmental laws and regulatory databases and see how legal precedent, differing understandings of the facts, alternative regulatory and market-enlisting strategies have shaped solutions to environmental problems. Provides opportunity to apply legal skills to local environmental legislation or legal problem. Intermediate coursework in Environmental Studies, Political Science, Community Health, Urban Studies or other environmentally-related coursework is recommended
Spr ENVS1410 S01 24191 TTh 2:30-3:50(11) (C. Karp)

ENVS 1420. Environmental Journalism.
Introduces students to the basic tools of reporting and writing journalistic articles about environmental issues. Covering news, features, investigative and first-person pieces, it explores how environmental stories can be crafted to best capture the interest of editors and readers. The focus of the course will be on producing publishable work. In addition, students will review and critique the coverage of environmental issues in the press, read outstanding examples of environmental reportage and feature writing, and examine the role of media coverage in the resolution of environmental controversies. Enrollment limited to 15. Instructor permission required
WRIT Spr ENVS1420 S01 24185 MW 8:30-9:50(02) (S. Zuckerman)

ENVS 1440. Conservation Biology (BIOL 1470).
Interested students must register for BIOL 1470 S01 (CRN 14620)

ENVS 1490. SES-Independent Study/Science Writing.
The culmination of the Semester in Environmental Sciences at the Marine Biological Laboratory is an independent research project that builds on the topics covered in the aquatic and terrestrial ecosystem analysis core courses. In addition students participate in a seminar designed to help improve their ability to tell a lay reader about science. Enrollment is limited to students in this program. Instructor permission required
Fall ENVS1490 S01 10661 Arranged "To Be Arranged"

ENVS 1491. SES-Terrestrial Ecosystem Analysis.
Team-taught course examining: the structure of terrestrial ecosystems—biogeochemical processes, physiological ecology—impacts of environmental change on the landscape; the application of basic principles of ecosystem ecology to investigating contemporary environmental problems. Part of the Semester in Environmental Science at the Marine Biological Laboratory; enrollment is limited to students in this program. Instructor permission required
Fall ENVS1491 S01 10662 Arranged "To Be Arranged"

ENVS 1492. SES-Aquatic Ecosystem Analysis.
Team-taught course examining the structure of freshwater, estuarine and marine ecosystems; impacts of environmental change on the landscape at local regional and global scales; the application of basic principles of ecosystem ecology to investigating contemporary environmental problems such as coastal eutrophication, fisheries exploitation. Part of the Semester in Environmental Science at the Marine Biological Laboratory; enrollment is limited to students in this program. Instructor permission required
Fall ENVS1492 S01 10663 Arranged "To Be Arranged"

ENVS 1493. SES-Environmental Science Elective.
Two environmental science electives are offered each fall semester as part of the Semester in Environmental Science at the Marine Biological Laboratory, including: aquatic chemistry, mathematical modeling of ecological systems and microbial ecology. Enrollment is limited to students in this program. Instructor permission required
Fall ENVS1493 S01 10664 Arranged "To Be Arranged"

ENVS 1530. From Locke to Deep Ecology: Property Rights and Environmental Policy.
Examines the evolution of property law and tenure in land, water, the atmosphere and natural resources, and the consequences of these property rights regimes for environmental protection. Readings drawn from the scientific, legal, public policy and popular literature are used to consider the development of American attitudes about the relationship between people and nature; the relationship between public and private rights in the land, sea, freshwater, atmosphere and wildlife; and the use of innovative property rights regimes in environmental policy. Intermediate coursework in Environmental Studies, Urban Studies, American Civilizations or other environmentally-related coursework is recommended
Fall ENVS1530 S01 15469 TTh 2:30-3:50(11) (C. Karp)

ENVS 1555. Urban Agriculture: The Importance of Localized Food Systems.
Urban agriculture and community gardens have a critical function in a small but increasing movement toward more localized and sustainable food economies. This class will explore research and readings from multiple disciplines on the role of urban agriculture in world development and sustainability practices. Further, we will explore current U.S. farm policy, labor practices, and global organizations that impact world agricultural systems. More importantly, students will become involved in planning and developing local urban agriculture projects. They will also learn organic agricultural practices and be involved in community partnerships associated with increasing healthy food access. Enrollment limited to 40
Spr ENVS1555 S01 25829 TTh 1:00-2:20(10) (M. King)

ENVS 1560. Sustenance and Sustainability: Exploring the Nexus of Agro-Food Systems, Society, the Environment.
Explores the intersections of agriculture, society and the environment. Employing an interdisciplinary perspective, we explore the relationships among cultural, environmental and economic—that surround the cultivation, processing, distribution, marketing, preparation and consumption of food. We examine the ways in which contemporary agricultural practices have created environmental and social problems
and inequities. Likewise, we also explore ways that alternative agricultural practices, including organic production, food re-localization movements, and community-supported agriculture (to name a few), may offer routes toward both human sustainability and sustainability in the face of global environmental crises. Additional requirement: participation in one weekly 60-minute discussion group

Fall ENVS1580 S01 16416 TTh 1:00-2:20(10) (K. DeMaster)

Provides an overview of environmental justice history, theory and definitions. Students will review quantitative, qualitative, and theoretical approaches for understanding the origins and persistence of environmental discrimination. Examines the regulatory, institutional, structural, political, and economic forces that underlie patterns of race and class-based discrimination and their implications for environmental health among diverse communities. Case examples of environmental justice organizing will inform students of positive efforts by people of color in protecting their communities. Not open to first year students. Prerequisite: ENVS 0110

Spr ENVS1720 S01 24195 21 3:00-5:20(13) (D. Quiagley)

Interested students must register for HIST 1790 S01 (CRN 15303)

ENVS 1820. Environmental Health and Disease (Biol 1820).
Interested students must register for BIOL 1820 S01 (CRN 24083)

Interested students must register for ETHN 1890J S01 (CRN 15276)

ENVS 1900. Introduction to Geographic Information Systems for Environmental Applications (GEOL 1320).
Interested students must register for GEOL 1320 S02 (CRN 15293)

From coal power to solar power, energy drives economies and increases quality of life worldwide. However, this same energy use can, and often does, lead to severe environmental destruction/pollution and global warming. This course serves as an introduction to energy policy in the United States and also explores global attempts to solve energy problems. This course examines different types of energy sources and uses, different ideological paths driving energy policy, the environmental impacts of energy use, current global and domestic attempts to solve energy problems, and the role of renewable and alternative forms of energy in future energy policy

Spr ENVS1925 S01 25824 MW 1:00-2:20 (M. King)

ENVS 1929. The Fate of the Coast: Land Use and Public Policy in an Era of Rising Seas.
For the last few decades, there has been a land-rush on the ocean coasts of the United States. Unfortunately, this swamps the coast at a time when sea levels are on the rise. In some places the rise is natural, in some places the rise is exacerbated by human activities and everywhere it is fueled by climate change. This course will examine the causes of sea level rise, the effects it produces on land, the steps people have taken to deal with these effects and their consequences, and possible remedies. Enrollment limited to 20. Preference given to juniors and seniors. WRIT

Spr ENVS1929 S01 25819 TTh 4:00-6:20 (C. Dean)

Interested students must register for ENGR 1930S S01 (CRN 16171)

Interested students must register for ENGR 1930U S01 (CRN 24997)

ENVS 1965. Engaged Environmental Scholarship and Communication.
This upper level seminar will enable to students to place their research in the context of environmentally relevant policy and practice. Development of an environmentally-focused thesis or independent research project is a prerequisite. Students will hone practical professional skills, e.g. how to communicate scientific findings to the media and policy audiences; oral presentation skills, and tips on professional interactions. Required of all Brown Environmental Fellows (http://blogs.brown.edu/bef/), and open to others engaged in environmentally relevant projects from the natural and social sciences and humanities. Enrollment is limited to 15 seniors and graduate students, by application only (available Fall 2011). Instructor permission required. Contact Heather_Leslie@brown.edu for more information. WRIT

Spr ENVS1965 S01 24194 W 3:00-5:20(14) (H. Leslie)

First semester of individual analysis of environmental issues, required for all environmental studies concentrations. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor override required prior to registration.

Second semester of individual analysis of environmental issues, required for all environmental studies concentrations. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor override required prior to registration.

ENVS 2420. The Structure of Cities (ECON 2420).
Interested students must register for ECON 2420 S01 (CRN 15137)

ENVS 2680. Ecosystem Modeling for Non-Programmers.
Emphasizes hands-on experience building ecosystem models. Students build about 8 models in an intensive three-week class in January at the Marine Biological Laboratory, then build their own model as a term project over the Spring semester. Term projects will be in the form of a manuscript formatted for publication in Ecology. Prerequisites: MATH 0050 and 0060, or co-requisite MATH 0090

Spr ENVS2680 S01 20176 Arranged (E. Rastetter)

ENVS 2700B. ES Topics: Sociology of Natural Resources, Community Conflict, and Social Movements.
Examining a variety of natural resources – including water, uranium, and oil/gas – this course examines sociology of natural resource-related issues, related community conflicts and social movements. This seminar challenges students to analyze conditions that encourage or prohibit social movements related to natural resource controversies, while inviting application of a political-economic theoretical frameworks. We will discuss US and global cases, and a global development perspective permeates the course. Ethical debates in natural resource development decisions will be examined in the context of theories of development. As a seminar, students will shape class discussions and add their own interests to the mix. Enrollment limited to 10 graduate students

Fall ENVS2700BS01 14882 T 4:00-6:20(15) (S. Malin)

ENVS 2890. Reading and Research.
First semester of thesis research during which a thesis proposal is prepared. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor override required prior to registration.

ENVS 2891. Reading and Research.
Second semester of thesis research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor override required prior to registration.

ENVS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

Ethnic Studies

ETHN 0090A. The Border/La Frontera.
No description available. Enrollment limited to 20 first year students. WRIT

Spr ETHN0090AS01 25825 T 4:00-6:20(15) (E. Hu-Dehart)

ETHN 0300. Ethnic Writing.
This course will explore the idea of "ethnic writing" in both theory and practice. Students will examine how writers draw upon race and ethnicity (not always their own) to produce creative works and will then put these ideas in practice in their own writing, including but not limited to fiction, poetry, memoir, and inter-genre work. Interested students should attend the first session prepared for an in-class exercise that will determine attendance. Enrollment limited to 17. Instructor permission required. S/N/C
ETHN 0500. Introduction to American/Ethnic Studies. Considers the U.S. as a society whose unifying identity is rooted in ethnic and racial diversity. Explores the historical and contemporary experiences of racial and ethnic groups in this country and analyzes different forms of representation of those experiences, as well as representations of the racial and ethnic stratification in the U.S. imagination. Term End 2
Fall ETHN0500 S01 15274 MWF 10:00-1:00(06) (R. Rodriguez)

ETHN 0610E. Postcolonial Literature (ENGL 0610E). Interested students must register for ENGL 0610E S01 (CRN 25076)

ETHN 0790A. Latina/o Literature. This course will introduce students to a broad array of Latina/o literature—film, poetry, drama, and graphic novels. While there is a long tradition of Latina/o literature in the United States, we will focus primarily on a period from 1970 to the present. Designed to familiarize students with debates in the field, the readings will also include critical essays. Enrollment limited to 20
Spr ETHN0790AS01 25118 TTh 1:00-2:20(10) (R. Rodriguez)

ETHN 0800A. City Novels (ENGL 0800A). Interested students must register for ENGL 0800A S01 (CRN 24607)

ETHN 0800F. Being There: Bearing Witness in Modern Times (ENGL 0800F).

ETHN 0901I. Body Count: Technologies of Life and Death (MCM 0901I).

ETHN 0980. The Research Process: Qualitative and Ethnographic Methods. Paying attention to methodology and research design can enhance the capacity of research in any field and contribute to knowledge production. The purpose of this seminar is to introduce students to a variety of social science research methods with an emphasis on ethnographic, mixed-methods research (research-design, data-collection, and data analysis). Social science research is a craft, and like any other craft, it takes practice to do it well. This seminar emphasizes a "hands-on," "applied," and/or practical approach to learning. The course is suited to students who have an on-going research project they plan to pursue throughout the semester. Enrollment limited to 20
Fall ETHN0980 S01 16480 MW 8:30-9:50(02) (H. Llorens)


ETHN 1710M. Nationalizing Narratives: Race, Nationalism, and the 20th-C. American Novel (ENGL 1710M).

ETHN 1760P. "Extravagant" Texts: Experiments in Asian American Writing (ENGL 1760P).

ETHN 1890G. Native Americans in the Media: Representation and Self-Representation in Film. How have Native American peoples been represented and self-represented in film? Specific topics include identity, race, gender, violence, religion and spirituality, cultural appropriation, and Native humor. The analysis and comparison of American popular and Native representations of Native Americans. The course centers on screening and discussing selected movies, complemented by academic and non-academic literature such as books, articles, and reviews. Completion of introductory courses on Native American cultures is recommended, but not necessary. All students are welcome. Enrollment limited to 20
Fall ETHN1890GS01 16641 Th 4:00-6:20(15) (A. Baca)

ETHN 1890H. Introduction to American Indian Studies. Introduces students to both historical and contemporary issues in North America. Issues of identity, sovereignty, representation and self-representation are key components. Because this course is interdisciplinary, we will use texts from anthropology, cultural studies, history, film and literature as tools to understand and appreciate the ways in which American Indian cultures survive, flourish and shape the United States. No special background is required. All students are welcome. Enrollment limited to 30

ETHN 1890J. Native American Environmental Health Movements. American Indian reservations are home to countless sources of environmental contamination, which impact residents' health and ability to maintain cultural practices. In response to this assault, and the numerous scientific studies that often follow, Native communities are taking charge of the research process, and partnering with scientists to explore health effects and remediation possibilities. Through case studies, we will examine how Native communities are pushing to "indigenize" the research process. This class is broadly interdisciplinary, and will be useful for students interested in contemporary issues in Native American communities, and students intending to conduct scientific research in minority communities. Enrollment limited to 20
Fall ETHN1890J S01 15276 TTh 10:30-11:50(09) (E. Hoover)

ETHN 1890P. Introduction to Native American Literature. This survey course introduces several prominent genres of Native American literary production, including oral traditions, nonfiction essay, novel, short story, and stand-up comedy/performance. Selections are drawn primarily from Native American/Aboriginal writers and performers in the United States and Canada from the nineteenth century to present, including indigenous women from Pacific Islander communities. In addition to genre considerations, particular attention will be given to the social, cultural, and political contexts in which these works were produced
Spr ETHN1890PS01 25689 TTh 9:00-10:20(08) (A. Baca)

ETHN 1892. Race, Class and Gender in Latino Communities. Examines the roles of racial, class, and gender identities, in the emergence and consolidation of Latino political power in the United States. We look at Latino racial attitudes and racial hierarchies, as "inherited" from Latin American social systems, and as developed here in the U.S. We explore class politics as they shape Latino social movements, economic conditions, and communities, and we analyze the impact of Latino immigration and union membership on organized labor. We consider gender roles and patriarchy in Latino families, and the roles of intersectionality and feminism in Latino politics. Enrollment limited to 40.

ETHN 1900B. Community, Language and Literacy: A Practicum. This course examines adult language and literacy learning and approaches to teaching in community settings. It is designed to support students' work teaching language and literacy to immigrant adults. Working with the Swearer Center and its community partners students will explore theories informing educational practice, and will gain skills and practice in providing language and literacy instruction to adult learners in the community. This practicum specifically addresses issues of language acquisition, acculturation, and broader contexts framing adult education. Enrollment limited to 20
Spr ETHN1900BS01 25641 W 3:00-5:20(14) (A. Affigne)

ETHN 1900H. What is Ethnic Studies?. No description available. Enrollment limited to 20 seniors and graduate students
Spr ETHN1900HS01 24629 M 3:00-5:20(13) (H. Llorens)

ETHN 1903G. Oral History and Community Memory (AMST 1903G).

ETHN 1910. Independent Study. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

ETHN 1920. Senior Thesis. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

French Studies

FREN 0100. Basic French. This is the first half of a two-semester course. Four meetings a week for oral practice. One hour of work outside of class is expected every day (grammar/writing, oral practice, reading). Enrollment limited to 18
FREN 0200. Basic French.
This is the second half of a two-semester course. Four meetings a week for oral practice plus one conversation hour. One hour of work outside of class is expected every day (grammar/writing, oral practice, reading). An accelerated track enables qualified students to go directly to FREN 0500 after FREN 0200. Enrollment limited to 18. Instructor permission required.

FREN 0300. Intermediate French I.
A semi-intensive elementary review with emphasis on all four skills (listening, speaking, reading and writing). Class activities include drills, small group activities, and skills. Class materials include an audio CD, videos, a French film, short stories, and various other authentic documents. Prerequisite: FREN 0200 or placement (Previous experience with French is required to take this class). Four meetings per week plus a 50-minute conversation section with TAs. Instructor permission required.

FREN 0400. Intermediate French II.
Continuation of FREN 0300 but may be taken separately. A four-skill language course that stresses oral interaction in class (three meetings per week plus one 50-minute conversation section). Materials include audio activities, film, and a novel. Short compositions with systematic grammar practice. Prerequisite: FREN 0300, FREN 0200 with permission, or placement. Instructor permission required.

FREN 0500. Writing and Speaking French I.
A four-skill language course that stresses oral interaction in class. Thematic units will focus on songs, poems, a short novel (E-E Schmitt), two graphic novels (Sattouf, Larcelet), films and a detective novel by Fred Vargas. Activities include a creative project using Comic Life, and a systematic grammar review. Prerequisite: FREN 0400, FREN 0200 with written permission, or placement. Instructor permission required.

FREN 0600. Writing and Speaking French II.
Prerequisite for study in French-speaking countries. Class time is devoted mainly to conversation and discussion practice. Writing instruction and assignments focus on essays, commentaries, and to a lesser degree, on story writing. Apart from reading assignments for discussion (press articles and literary excerpts), students select two novels to read. Prerequisite: FREN 0500 or placement. Enrollment limited to 18. Instructor permission required.

FREN 0720A. From Courtey Love to Postmodern Desire.
From twelfth-century courtly literature to contemporary film, this course explores the enduring romance between French culture and Eros. The ambiguities of desire are brought to the fore across changing religious and social contexts. Readings include Duras, Flaubert, Freud, and Baudrillard. Open to students who receive a 5 (AP test), 700 and above (SAT II) or with instructor's permission. Open to first year students only. Please email Virginia_Krause@brown.edu if you have questions. FYS

FREN 0760A. Introduction à l'analyse littéraire.
On what terms and with what tools can we "read" a literary text? An introduction to major periods and genres (the short story, the novel, poetry, theater) of French and Francophile literature and to a range of analytical approaches to the text, including narrative theory, poetics, psychoanalysis and gender studies.

FREN 1000B. Littérature et culture: chevaliers, courtisans, sorcières et philosophes.
From the Middle Ages to the Age of Versailles, this course will examine 6 foundational moments in French civilization: the Crusades, courtly love, humanism, the witch hunts, Cartesian reason, and the emergence of the autonomous self. Close scrutiny of literature and film will provide a window onto French civilization before the Revolution.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
work. Course taught in French. Written translations to and from French. Prerequisite: FREN 0600. Enrollment limited to 18
Spr FREN1510ES01 24469 MWF 11:00-11:50(04) (S. Ravillon)

FREN 1510F. Advanced Written and Oral French: Regards sur la France actuelle.
This course will use contemporary and classic works, newspaper articles, and film – all “made in France” – to explore and analyze the myths, realities, and contradictions of France today. Through in-class discussions, debates, and presentations, students will gain a deeper understanding of the enigma and legacy of this European country that once was the center of the cultural world and an early model of democracy. Follows FREN 0600 in the sequence of language courses. Writing activities, essays, commentaries, journals, etc.. May be repeated for credit. Prerequisite: FREN 0600. Enrollment limited to 18
Fall FREN1510FS01 16607 MWF 10:00-10:50(03) (D. Benech)

FREN 1710C. Politics, Democracy, and Corruption in Francophone Africa.
What do representations of democracy (its promises as well as its shortcomings) and corruption have to tell us about postcolonial and postmillennial politics in contemporary Francophone Sub-Saharan Africa? How have these interrelated problems and discourses been negotiated in French and African literature, film, journalism, and anthropology? This course will address these and related questions in a number of national and historical contexts, paying special attention to the ways in which current events on the continent both complement and complicate our understandings of Francophone African cultural production
Spr FREN1710CS01 25939 MWF 1:00-1:50(06) "To Be Arranged"

FREN 1900H. France at War.
This seminar considers the impact of warfare on France, its territories, and its former colonies. We will study various instances of violent conflict (civil and revolutionary wars, wars of expansion and of independence, European conflicts, the world wars) at different historical moments through the study of historical, literary, journalistic, and autobiographical sources. Topics include: war and religion, virility and violence, extreme situations and crises of representation, resistance and collaboration, colonization, nationhood, terrorism
Spr FREN1900HS01 24358 M 3:00-5:20(13) (G. Schultz)

Independent study in an area of special interest to the student, with close guidance of a member of the staff, and leading to a major paper. Required of candidates for honors, and recommended for all senior concentrators. Section numbers vary by instructor. Please check Banner for the correct Prerequisite: FREN 1100H or FREN 1510E
Spr FREN2110BS01 15199 W 3:00-5:20(14) (V. Krause)

FREN 2150C. Le roman libertin: Approches critiques.
We will attempt to study the evolution of the different genres of the libertine novel in the 18th century: roman de déseuction, the conte, roman de la prostituée. We will also examine how current approaches around issues of gender, sexuality, pornography allow for new contextualization of that novel. Authors to be read are Crébillon fils, Duclos, Godard d'Aucour, La Marlière, Boyer d'Argens, Denon and Laclos
Fall FREN2150CS01 15006 M 3:00-5:20(13) (P. Saint-Amand)

FREN 2190G. Introduction à la poésie du 20e siècle.
A graduate-level introduction to major poets/poetic works of the century, including Apollinaire, Cendrars, Césaire, Ponge, Michaux. Through close readings, we will attend to works' thematic preoccupations, formal innovations, conditions of production and the constellation of motifs by which the modern poetic voice has variously staked its relationship to other forms and objects of production (images, news, technology, conversation, subjecthood, history), while attempting, at every turn, to answer (or at least ask) the question of what poetry is. Secondary authors
include Heidegger, Sartre, de Man, Matthieu, Jenny, Kristeva, Derrida, Badiou. 999999
Fall FREN2190GS01 15198 F 3:00-5:20(15) (T. Ravindranathan)

FREN 2450. Exchange Scholar Program.

FREN 2600B. Gender and Sexuality in Contemporary France. Critical theory in France focusing on changes in the last decade in approaches to feminism, gender and sexuality. Topics include 1970s feminisms (Cixous, Irigaray); history of sexuality (Foucault); contemporary political debates such as le Pacs and la parité (Agasinskii, Fraisse, Borrillo, Halimi); masculine domination (Bourdieu); gay and lesbian studies (Eribon, Bourcier).

Spr FREN2600BS01 25198 W 3:00-5:20(14) (G. Schultz)

FREN 2970. Preliminary Examination Preparation.
For graduate students who have completed their course work and are preparing for a preliminary examination.

FREN 2980. Reading and Research.
Work with individual students in connection with special readings, problems of research, or preparation of theses. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

FREN 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

Gender and Sexuality Studies

GNSS 0909B. Bodies Out of Bounds.
In this seminar we will examine what happens to bodies - and the world around them - when they refuse to stay within "normal" boundaries. We will focus our readings on literature, essays, and memoir from the past two centuries, and use film and contemporary cultural theory for comparison and context. Readings range from Jeannette Winterson's Written on the Body to fiction by Octavia Butler. Enrollment limited to 20 first-year students. FYS WRIT
Fall GNSS0909BS01 14829 TTh 9:00-12:00(08) (G. Cohee)

GNSS 0909C. Reproductive Health: Science and Politics.
Reproductive health issues such as contraception, abortion, sexually transmitted infections and gay and lesbian health are some of the most controversial and politically charged issues in the US today. After an introduction to the interpretation of medical literature we will explore scientific, political, religious and cultural aspects of these important public policy issues. Successful national and international programs will be discussed. Although all views are welcome, it is expected that students will be respectful of other's opinions and will incorporate the best available scientific data into their conclusions. Enrollment limited to 20 first-year students. Instructor permission required. FYS DVPS WRIT
Spr GNSS0909CS01 23825 M 3:00-5:20(13) (S. Fox)

GNSS 0120. Introduction to Gender and Sexuality Studies.
Explores the interdisciplinary fields of Gender and Sexuality Studies, considering the relation between formations of gender and those of sexuality across a range of historical and disciplinary contexts. Considers how both sexuality and gender are shaped in relation to race and ethnicity, economic inequality, and the postcolonial legacy. WRIT
Spr GNSS0120 S01 23824 MW 10:00-10:50(03) (D. Weinstein)

After the Islamic Revolution in Iran in 1979, the new government targeted women’s legal rights in the name of Islam. Family Law, Criminal Law, and even Constitutional Law were designed or amended in ways that imposed gender discriminations on Iranian women’s public and private lives. Iranian women from both secular and religious backgrounds have employed diverse strategies to resist these laws. Students will learn about the rules and texts imposed on Iranian women and also the creative and innovative ways through which they overcome these discriminatory laws. Enrollment limited to 20. WRIT
Spr GNSS1700 S01 24389 TTh 2:30-3:50(11) (M. Kar)

GNSS 1810. Independent Study and Research.
Independent reading and research for upper-level students under the direction of a faculty member. Please check Banner for the correct section number and CRN to use when registering for this course.

GNSS 1820. Independent Study and Research.
Independent reading and research for upper-level students under the direction of a faculty member. Please check Banner for the correct section number and CRN to use when registering for this course.

GNSS 1960Q. On Love and Intimacy.
Love and Intimacy are terms that have a lot of cultural cache. In this course, we will analyze the ways in which intimacy has been embedded within certain discourses of privacy, rights, and individuality. In addition to the couple focus, we will examine friendship, celibacy, therapy and relationships people form with pets and with objects to flesh out intimacy’s multiplicities to see how these forces impact these affective tides. This course will bring together history, critical theory, and film to think through various expressions of intimacy and what it means to relate to the other. Enrollment limited to 20
Fall GNSS1960QCS01 16127 Th 4:00-6:20(15) (A. Musser)

Through screenings and transdisciplinary readings, this film-philosophy seminar explores concepts of time, affect, death and subjectivity. We will examine the cinema’s capacity to convey events and experiences of twentieth and twenty-first century history. Philosopher Gilles Deleuze echoes Shakespeare: “The time is out of joint.” What can this mean for cinema, thought and life? What is a ‘time-image’ and can filmic images of time reveal or heal past wounds, those scars that haunt all time to come? How does an image conceal or expose time? How do such images respond to intimate experiences, and even shape politics, history and cultural memory? Enrollment limited to 20
Spr GNSS1960RGS01 25449 Th 4:00-6:20(15) (N. Boljkovac)

GNSS 1960S. Media and Modern Childhood.
Will explore a range of key themes in children’s media and material culture since the nineteenth century. Through readings, screenings, and the close analysis of media objects themselves (including books, toys, film, television, and digital media), the class will investigate a variety of constructions of and attitudes toward children as they are visible in these cultural forms. Will explore several methodological approaches to studying children’s media, and will observe how particular values, economic and political interests, and assumptions about childhood are encouraged, discouraged, and variously position children as consumers, active agents, citizens and cultural participants. Enrollment limited to 20
Spr GNSS1960SS01 25468 T 4:00-6:20(15) (M. Bak)

Independent research under the direction of a faculty member, leading to a thesis. Required of honors candidates. Open to seniors only. Instructor permission required.

Independent research under the direction of a faculty member, leading to a thesis. Required of honors candidates. Open to seniors only. Instructor permission required.

GNSS 1990. Senior Seminar.
A research seminar focussing on the research and writing of the participants. Required of senior concentrators; open to other advanced students by permission
Fall GNSS1990 S01 14388 T 4:00-6:20(15) (D. Davis)

An advanced research seminar in feminist theory and gender studies. Presentations made by Brown faculty, Pembroke Center fellows, visiting scholars, and students. Offered in conjunction with the Pembroke Seminar. Enrollment limited to 8. Instructor permission required.
Fall GNSS2010FS01 14830 W 10:00-12:20(03) (T. Bewes)

An advanced feminist research seminar in feminist theory and gender studies. Presentations made by Brown faculty, Pembroke Center fellows,
visiting scholars, and students. Offered in conjunction with the Pembroke Seminar. Enrollment limited to 8
Spr GNSS2020FS01 24390 W 10:00-12:20(03) (T. Bewes)

GNSS XLIST. Courses of Interest to Concentrators in Gender and Sexuality Studies.
Fall 2012
The following courses have a primary focus on women or gender or make significant use of modes of feminist or queer analysis. They may count toward the concentration in Gender and Sexuality Studies. Please check with the sponsoring department for times and locations.

Africana Studies
AFRI 0600 Race, Gender, and Urban Politics
AFRI 1050E Research-to-Performance Method (RPM) Playwriting Workshop
AFRI 1110 Voices Beneath the Veil

Anthropology
ANTH 2100A Cultural Issues in Latin America

Biography
BiOL 1920C Social Contexts of Disease

East Asian Studies
EAST 1270 China Through the Lens: History, Cinema, and Critical Discourse

English
ENGL 100FR Queer Relations; Aesthetics and Sexuality

Modern Culture and Media
MCM 0901H Uncomfortable Media

Sociology
SOC 1240 Human Sexuality

Spring 2013
The following courses have a primary focus on women or gender or make significant use of modes of feminist or queer analysis. They may count toward the concentration in Gender and Sexuality Studies. Please check with the sponsoring department for times and locations.

Africana Studies
AFRI 0710A Racial and Gender Politics in Contemporary Brazil
AFRI 0990 Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre

 Classics
CLAS 1750L Erotic Desire in the Premodern Mediterranean

East Asian Studies
EAST 1950B Chinese Women, Gender and Feminism from Historical and Transnational Perspectives
EAST 1950X Queer Japan: Culture, History and Sexuality

English
ENGL 0800A City Novels
ENGL 17612 Modernism and Everyday Life

History
HIST 1755 The Intimate State: The Politics of Gender, Sex, and Family in the U.S., 1873-Present

Judaic Studies
JUDS 0980V Money, Power, Sex, and Love: The Modern Jewish Family

Modern Culture and Media
MCM 0901 Body Count: Technologies of Life and Death
MCM 1200G Cinema and Stardom: Image/Industry/Fantasy
MCM 15010 Television, Gender, Sexuality

Geological Sciences
GEOL 0010. Face of the Earth.
Study of Earth’s surface (e.g., mountains, rivers, shorelines) and processes which have created and modify it (e.g., glaciation, floods, volcanism, plate tectonics, earthquakes). The goals are to increase appreciation and enjoyment of our natural surroundings and provide a better understanding of environmental problems, natural resources, land use, and geologic hazards. Four labs, plus a field trip. For nonscience concentrators. Prerequisites: basic chemistry and physical makeup. Uses Earth’s carbon cycle to understand solar, tectonic, and biological cycles’ interactions. Examines the origin of the sedimentary record, dating of the geological record, chemistry and life on early Earth, and the nature of feedbacks that maintain the “habitable” range on Earth. Two field trips; five laboratories arranged. Prerequisite: GEOL 0220 or instructor permission.
Labs will meet Tuesdays from 7:00 pm to 9:00 pm
Spr GEOL0010 S01 24728 MWF 1:00-1:50(06) (L. Gromet)

GEOL 0030. Climate and Climate Change.
This course is designed to provide students with an understanding of the climate system on Earth, changes in Earth’s climate over time, and interactions between climate change and human society. Topics will include: global energy balance; the structure, composition and role of the atmosphere and oceans; the influence of the global carbon cycle on climate; the social, economic and political drivers of human perturbations to the carbon cycle; and societal vulnerability, resilience and adaptive capacity in the face of environmental changes. No prerequisites; course open to all levels. Enrollment limited to 40.
Fall GEOL0030 S01 16328 TTh 2:30-3:50(11) (A. Lynch)

GEOL 0050. Mars, Moon, and the Earth.
Space exploration has revealed an astonishing array of surface features on the planets and their satellites. Why are atmospheres on the planets different from Earth’s atmosphere? Do other planets represent our past or future environment? Is there life on other planets? The planets and their histories are compared to gain insight and a new perspective on planet Earth.
Fall GEOL0050 S01 15287 MWF 2:00-2:50(07) (J. Head)

GEOL 0070. Introduction to Oceanography.
Examines the ocean’s role in global (and local) change, emphasizing the ocean as an evolving, dynamically balanced ecosystem. Focus on physical/chemical/biological systems’ interconnections needed to understand the natural variability of the ocean on various time and space scales, from El Niño to global warming. Three lectures, one section meeting weekly; written exercises on oceanographic problems; two field trips to study estuarine and coastal processes
Spr GEOL0070 S01 26010 MWF 2:00-2:50(07) (S. Clemens)

GEOL 0160G. Energy Resources.
Most of our energy comes directly from the Earth - predominantly as fossil fuels, but also from geothermal, wind, and hydro sources. Developing technologies for alternative energy such as solar, nuclear, biomass and fuel cells also rely on Earth resources. The potential for these energy sources will be discussed. The science behind their utilization and environmental impact (e.g. carbon sequestration and nuclear waste disposal) will be introduced and the trade-offs in making decisions for the future will be explored. CAP course. Enrollment limited to 20 first year students. FYS WRIT
Fall GEOL0160G S01 16055 TTh 10:30-11:50(09) (J. Hirth)

GEOL 0220. Physical Processes in Geology.
Introduction to the form and origin of interior and surface features of Earth, with emphasis on understanding the physical processes that produced them. Topics include interior processes (plate tectonics, mountain building, volcanism, earthquakes, and flow of solid rocks) and surface processes (atmospheric and oceanic circulation, flow of rivers, glaciers, and groundwater). Laboratory and field trips arranged. Intended for science concentrators or those wishing in-depth treatment. CAP course.
Enrollment limited to 100. After pre-registration, instructor permission is required to register or get on wait-list. Please see or email instructor (Jan_Tullis@brown.edu)
Fall GEOL0220 S01 15277 MWF 11:00-11:50(04) (J. Tullis)

Introduction to the chemical and mineralogical nature of the Earth, Moon, and meteorites, and the role of chemical processes in their evolution. Topics include: composition of rock-forming minerals; origin of crustal and mantle rocks; stable and radiogenic isotopes; models of nucleosynthesis, planet formation and differentiation. Weekly laboratory and two field trips. Intended for science concentrators. Prerequisites: basic chemistry and GEOL 0010 or 0050 or 0220, or instructor permission.
Spr GEOL0230 S01 24740 TTh 11:00-11:50(04) (T. Herbert)

GEOL 0250. Computational Approaches to Modelling and Quantitative Analysis in Natural Sciences: An Introduction.
Application of numerical analysis to mathematical modelling in the natural sciences including topics such as ground water and glacier flow, earthquakes, climate models, phase equilibrium, and population dynamics.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Numerical methods will include the solution of linear algebraic systems of equations, numerical integration, solution of differential equations, time series analysis, statistical data analysis tools. Development of computer programming skills in the Matlab programming environment. Suggested prerequisites: MATH 0090, 0100; PHYS 0030, 0040, or 0050, 0060

GEOL 0310. Fossil Record. Integrated view of the history of life: biogeochemical cycles, biodiversity, evolution by natural selection, ecology, and physiology along a multiplicity of scales from the microbial to the planetary, as recorded in the fossil record. Attention is given to how biotic systems, in contrast to just physical systems, have changed through time maintaining the chemical and thermodynamic non-equilibrium state of the Earth’s surface. Two lectures per week; several labs including dissections for paleobiological comparisons and one field trip to fossil localities and museum collections in Connecticut and Massachusetts. Prerequisites: GEOL 0220 or 0230 or 0240, BIOL 0200, or instructor permission

Fall GEOL0250 S01 15499 MWF 10:00-10:50(03) (E. Parmentier)

GEOL 0580. Foundations of Physical Hydrology. Qualitative introduction to the dynamics of watersheds and groundwater flow from an intuitive perspective. Lays the foundations for understanding the physical mechanisms by which water is transported throughout a hydrologic system. Provides background for future studies, but is primarily designed to enable informed citizens to thoughtfully critique water management practices and public policy. Pre-college math and physics background is expected.

Fall GEOL0580 S01 16224 MWF 2:00-2:50(07) (D. Goldsby)

GEOL 1100. Global Physical/Descriptive Oceanography. Examines physical characteristics, processes, and dynamics of the global ocean to understand circulation patterns and how they relate to ocean chemistry and large scale climate change. Assignments address origin and distribution of water masses, heat and water budgets, thermohaline and wind-driven circulation systems, dynamics of the oceanic conveyor belt, and El Niños. Offered alternate years

Spr GEOL1100 S01 26778 TTh 1:00-2:20(10) (W. Prell)

GEOL 1110. Estuarine Oceanography. Examines physical, chemical, and biological characteristics of local estuaries using field measurements, analysis of field data, and interpretation of processes; field investigation results will be prepared as a cooperative class report. Topics include: tidal and circulation processes, salinity and freshwater fluxes, watershed pollutants, estuary flushing rates, and estuary ecosystems. Primarily for students with experience in the sciences. MATH 0090, 0100, or equivalent, recommended. Enrollment limited to 20. WRIT

Labs will be held on Fridays from 1-5pm, with fieldwork through mid-October

Fall GEOL1110 S01 15570 MWF 1:00-1:50(06) (W. Prell)

GEOL 1130. Ocean Biogeochemical Cycles. A quantitative treatment of the cycling of biologically important elements in the world ocean. Special attention paid to the carbon system in the ocean and the role that organisms, in conjunction with ocean circulation, play in regulating the carbon dioxide content of the atmosphere through exchange with the surface ocean. For science concentrators. Offered alternate years. Prerequisite: CHEM 0330 or equivalent, or instructor permission. WRIT

Fall GEOL1130 S01 15398 MWF 2:00-2:50(07) (T. Herbert)

GEOL 1240. Stratigraphy and Sedimentation. Introduction to depositional environments and processes responsible for formation of sedimentary rocks. Major sedimentary environments in the Recent are discussed, general models are proposed, and stratigraphic sequences in older sediments are examined in the light of these models. The Phanerzoic stratigraphic record is examined from the perspective of Earth system history. Laboratory arranged. Prerequisites: GEOL 0220 or 0240, or instructor permission. GEOL 0310, 1410 are also recommended. WRIT

Fall GEOL1240 S01 15279 TTh 10:30-11:50(09) (J. Russell)

GEOL 1250. Introduction to Geographic Information Systems for Environmental Applications. Introduction to the concepts of geospatial analysis and digital mapping. The principles of spatial data structures, coordinate systems, and database design are covered. Related work in image databases also discussed. Extensive hands-on training in ESRI-based geographic information system software will be provided. Focal point of class is the completion of student-selected research project employing GIS methods. Enrollment limited to 20. After pre-registration, instructor permission is required to register or get on wait-list. Please see or email instructor. S/NC

Fall GEOL1320 S02 15293 TTh 1:00-2:20(10) (L. Carlson)

GEOL 1330. Global Environmental Remote Sensing. Introduction to physical principles of remote sensing across electromagnetic spectrum and application to the study of Earth’s systems (oceans, atmosphere, and land). Topics: interaction of light with materials, imaging principles and interpretation, methods of data analysis. Laboratory work focuses on image analysis, classification of satellite image data, and the role that organisms, in conjunction with ocean circulation, play in regulating the carbon dioxide content of the atmosphere through exchange with the surface ocean. For science concentrators. Offered alternate years

Spr GEOL1330 S01 24899 TTh 1:00-2:20(10) (J. Mustard)

GEOL 1350. Weather and Climate. Weather phenomena occur on short time scales, and form the basis for understanding climate, the study of changes over longer time scales. This course aims to provide an understanding of the processes that drive weather patterns, the general circulation of the atmosphere, and climate on Earth. Topics include: structure and composition of the atmosphere; sources of energy driving atmospheric processes; weather forecasting; the hydrological cycle; the forces that create severe weather; the influence of humans on the atmosphere; and factors that influence climate, climate variability and climate change. MATH 0090, 0100; PHYS 0050, or equivalent recommended. Enrollment limited to 30. WRIT

Fall GEOL1350 S01 16353 TTh 10:30-11:50(09) (M. Tsuchikane)

GEOL 1370. Environmental Geochemistry. The course will examine the biogeochemical cycling, fate and transport of chemicals in the atmospheric and aquatic environments. Topics such as chemical weathering, natural water pollution and remediation, acid deposition, global warming and air pollution will be examined through natural ecosystem examples from rivers, lakes, estuaries, and ocean. Field trips and laboratory arranged. Prerequisites: CHEM 0100 or 0330, or instructor permission

Fall GEOL1370 S01 15270 TTh 9:00-10:20(08) (Y. Huang)

GEOL 1380. Environmental Stable Isotopes. Introduction to the concepts, analytical methods, theory and environmental applications of stable H, O, C, N and S isotopes. Emphasis will be placed on theory and applications of light isotopes in paleoclimate studies, environmental hydrogeology and biogeochemistry. Prerequisites: CHEM 0100, GEOL 0220 or 0230 recommended, or instructor permission

Spr GEOL1380 S01 24714 MWF 9:00-10:50(02) (Y. Huang)

GEOL 1410. Mineralogy. Introduction to mineralogical processes on Earth’s surface and its interior. Topics include crystallography, crystal chemistry, nucleation, crystal growth, biomineralization, environmental mineralogy, and mantle mineralogy. Laboratory study devoted to optical identification of rock-forming minerals. Prerequisites: GEOL 0230, CHEM 0100 or 0330, or equivalent

Fall GEOL1410 S01 15275 MWF 10:00-10:50(03) (Y. Lian)

GEOL 1420. Petrology. Introduction to the origin of igneous and metamorphic rocks. Emphasis on principles and understanding rather than facts and memorization. Principles are used to extract information conserved in rocks about their formation, processes, sources and evolution with time. Laboratory work focuses on rock hand samples and microscopic textures. Field trips, laboratory arranged. Prerequisites: GEOL 1410, or instructor permission

Spr GEOL1420 S01 25251 TTh 9:00-10:20(08) (A. Saal)

GEOL 1450. Structural Geology. Introduction to the geometry, kinematics and mechanics of rocks deformed by brittle fracture or faulting and ductile solid state flow, on scales from microscopic to mountain ranges. The emphasis is on using concepts to
interpret the formation, strain history and rheology of deformed rocks in terms of the operative grain-scale processes, material properties and environmental conditions. Weekly 2 hour lab involving hands-on experience closely related to class topics. Two field trips. Prerequisites: GEOL 220 or instructor permission. WRIT

Spr GEOL1450 S01 24744 TTh 10:30-11:50(09) (J. Tullis)

GEOL 1510. Introduction to Atmospheric Dynamics.
Introduces the fundamental physical principles that govern the motion of the atmosphere, and provides an elementary description and interpretation of a wide range of atmospheric phenomena. Explore the dynamics of atmosphere and mathematical laws governing weather and climate. Topics: geostrophic balance, vorticity dynamics, boundary layers, and baroclinic instability. Emphasis will be on physical interpretation of the equations rather than on solving them. By the end of this course, you will have investigated the workings of such phenomena as sea breezes, planetary waves, midlatitude cyclones, fronts, and the global general circulation. Prerequisites: MATH 0100 or 0170, and PHYS 0050. Enrollment limited to 30

Spr GEOL1510 S01 25398 MW 10:00-10:50(03) (A. Lynch)

GEOL 1610. Solid Earth Geophysics.
A survey of basic geophysical techniques for determining the structure and dynamics of Earth’s interior. Topics include: global structure from seismic waves; gravit, magnetic field, and shape of the Earth; thermal processes within the Earth; structure of continental and oceanic lithosphere. Recommended courses: GEOL 0220, PHYS 0470, APMA 0330. No prerequisites

Fall GEOL1610 S01 15272 MWF 11:00-11:50(04) (D. Forsyth)

GEOL 1620. Continuum Physics of the Solid Earth.
Physics of the Earth with emphasis on fundamental physical principles and mathematical tools. Topics include application of: conductive and convective heat transfer to cooling of the Earth; potential theory to interpretation of gravity anomalies; solid mechanics to deformation of Earth’s lithosphere; fluid mechanics to flow in the Earth’s interior and in porous media. Recommended courses: GEOL 0220, APMA 0340; PHYS 0470 or ENGN 0510

Spr GEOL1620 S01 24849 MW 11:00-11:50(04) (E. Parmentier)

GEOL 1660. Instrumental Analysis with Environmental Applications.
This course covers the principles and practical applications of important analytical chemistry tools used to study environmental problems, including discussions of method selection and statistical treatment of data. Students will strategize and implement a study of a field site. Includes lab sessions with hands-on experience of instrumental analysis using atomic and molecular spectroscopic techniques, separations by gas and liquid chromatography, and electrochemical methods. Prerequisite: CHEM 0330 or GEOL 1370. Enrollment limited to 20. Instructor permission required

Spr GEOL1660 S01 25408 TTh 10:30-11:50(09) (Y. Huang)

GEOL 1950D. Field and Tectonics Seminar.
Development of field mapping and interpretive skills used in the evolution of complex orogenic terranes. Structural field mapping is carried out in highly deformed metamorphic and igneous rocks in the New England Appalachians, the site of a continental collision associated with the formation of the supercontinent Pangea. Expected: GEOL 0230 and GEOL 1450, or equivalent, and field mapping experience (generally a summer geological mapping course). Students are required to arrive one week prior to the start of classes for the beginning of field work. Instructor permission required

Fall GEOL1950DS01 15282 Spr Arrange (L. Gromet)

Astrophysical and Dynamical Processes in Planetary Sciences is a course that challenges students to use physical and geophysical analysis to construct a quantitative understanding of the formation and evolution of the Sun, the solar system’s planets and small bodies, and extrasolar planets. The goal is to provide senior undergraduate and first-year graduate students with core knowledge of facts and current theories in the planetary sciences. Through lectures, problem sets, and exams, the students will construct quantitative frameworks on which to evaluate, and place into context, hypotheses and theories discussed in upper-level graduate courses. Prerequisites: MATH 0100; and one of GEOL 0050, PHYS 0210, 0220, or 0270. APMA 0330 is desirable but not required

Fall GEOL1950GS01 16209 MW 2:00-2:50(07) (A. Milnar)

GEOL 1960H. The Early Earth.
Primary focus on evolution of the solid Earth (core, mantle, crust) but will also include discussion of the Archean hydrosphere, atmosphere and biosphere. Reading and discussing current literature, with lectures. Intended for graduate students and upper level undergraduates with advanced petrology and/or geophysics. Enrollment limited to 20

Spr GEOL1960HS01 24847 TTh 10:30-11:50(09) (S. Parman)

GEOL 1960J. Reactions and Rheology: Chemical and Mechanical Kinetics in Mineral Systems.
Characterization of atomic diffusion and dislocation motion responsible for chemical and physical reactions and plastic rheology in ionic solids. Topics include: point-defect thermodynamics; atomic diffusion (physical and mathematical); solid-solution formation; solid-state compound formation; dislocation structures; grain boundary structure and chemical segregation; plastic rheology. Recommended three or more of GEOL 1410, GEOL 1420, or ENGN 0410, ENGN 1410, or CHEM 0330, CHEM 1060. Enrollment limited to 20.

Spr GEOL1960JU S01 25253 MW 9:00-9:50(02) (R. Cooper)

One semester is required for seniors in Sc.B. and honors program. Course work includes preparation of a thesis. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Enrollment is restricted to undergraduates only

Strategies and the physical principles behind the quantitative extraction of geophysical and biophysical properties from remotely sensed data. Emphasis on radiative transfer theory and modeling of spectra and spectral mixtures from optical constants. Advanced methods of digital image processing. Methods of integrating remotely sensed data into a GIS framework will be introduced. Recommended preparation course: GEOL 1330 or 1710; MATH 0100; PHYS 0600

Fall GEOL2330 S01 15273 Arranged (J. Mustard)

GEOL 2630. Interpretation Theory in Geophysics.
Use basic statistical theory and its matrix algebra representation and modern approaches for the optimum design of experiments, constructing model solutions to measurements, and describing nonuniqueness in models, with particular emphasis on generalized linear-inverse techniques. Introduction to stochastic processes and prediction. Recommended courses: GEOL 1610; MATH 0290, 0520, or APMA 0300, 0340, and computer programming skills. Offered alternate years

Spr GEOL2630 S01 25408 MW 2:00-2:50(07) (D. Forsyth)

GEOL 2650. Advanced Seismology.
The theory of modern seismology will be applied to imaging of Earth structure (from local to global scales) and determination of earthquake source models. Topics include elastic wave propagation, representation theorems, seismic tomography, moment tensors, source-time functions, and models of fault rupture. Offered alternate years

Spr GEOL2650 S01 24724 TTh 10:30-11:50(09) (K. Fischer)

GEOL 2730. Isotope Geochemistry.
A survey course emphasizing fundamental principles in isotope geochemistry, including nuclear systematics, nucleosynthesis, geochronological and stable isotope systems, and the application of radiogenic and stable isotopic tracers to geological problems. Prerequisites: GEOL 1410 and 1420, or instructor permission

Fall GEOL2730 S01 15280 TTh 9:00-10:20(08) (L. Gromet)

GEOL 2870. Titan and Enceladus.
Planetary Evolution in Spring 2012 is a seminar class focus on new discoveries about Saturn’s moons Titan and Enceladus. We will address four fundamental questions about the geological and geophysical evolution of these bodies using new results from instruments onboard the Cassini spacecraft. Is Titan geologically and geophysically alive or dead? How does the global volatile cycle sculpt its surface? Does Enceladus have an ocean today? What is the driving force for plume activity in the south polar terrain? Enrollment limited to 20

Spr GEOL2870 S01 24721 Arranged (A. Milnar)
GEOL 2910W. Special Topics: Ophiolites.
A seminar focusing on field, structural, petrological, and geochemical observations and geological processes relevant to the origin of ophiolites through geological time
Fall GEOL2910WS01 16122 TTh 1:00-2:20(10) (Y. Liang)

GEOL 2910Z. Seismic Attenuation.
The attenuation of seismic waves provides one of the most powerful constraints on the physical properties of the earth’s mantle, including temperature, the presence of melt, and rheology. Based primarily on readings of original research papers, we will discuss theoretical models of attenuation, physical mechanisms of attenuation, laboratory experimental measurements, and techniques and results of seismological observations with the overall goal of better understanding tectonic processes involving the lithosphere and asthenosphere of the earth.
Recommended background preparation: GEOL 1650 and GEOL 1960A
Fall GEOL2910ZS01 16053 TTh 1:00-2:20(10) (D. Forsyth)

GEOL 2920K. Special Topics in Geological Sciences: The Hydrological Cycle on Mars.
Evidence for the changing hydrological cycle on Mars, ranging from what appears to be an early warm and wet Mars, through history to the present very cold polar desert Antarctic-like environment will be examined. Ongoing rover exploration of Mars will be followed to assess what these new results are telling us about the hydrological cycle
Spr GEOL2920KS01 24761 W 3:00-5:20(14) (J. Head)

GEOL 2920N. Problems Antarctic Dry Valley Geoscience.
The Antarctic Dry Valleys represent an extreme hyperarid polar desert environment. Their geomorphology records the range of processes operating in these environments, preserving a record of climate change over millions of years. Major microenvironments are studied at the micro-, meso-, and macro-scale through literature review, field analyses, and research projects. Exobiological themes and climate change on Mars will be assessed
Spr GEOL2920NS01 24948 M 3:00-5:20(13) (J. Head)

GEOL 2920U. Climate Variations.
This course will examine the geologic record of lake basins on decadal to million-year time-scales. Students will gain hands-on experience with techniques in paleolimnology including sediment core acquisition, sediment description, petrography, sedimentology and environmental analysis, geochemistry, basic core scanning, and age determination, modeling, and time series analysis. The biotic content and interpretation of fossils will be stressed. The course will also cover theoretical aspects of paleolimnology and more specialized techniques according to student interest. Through participation in a group project and a poster presentation, students will develop an understanding of the role of environmental science in assessing change in the past. Three hours in the lecture section and one conference section number and CRN to use when registering for this course.
Spr GEOL2920US01 24727 Arranged (J. Russell)

GEOL 2920V. Terrestrial Nitrogen and Carbon Cycling.
This course will examine aboveground/ belowground processes in the context of the global nitrogen and carbon cycles, and the impacts of both natural and anthropogenic disturbances. It will include discussion of processes such as (de)nitrification, N-fixation, respiration, photosynthesis, and decomposition and their relationship to soil properties; the coupling of N and C cycles in soils related to climate change and increasing N deposition. It will include emphasis on emerging new techniques to quantify N and C processes in the laboratory, field and through modeling, and field trip investigating current field studies. Prerequisites: BIOL 1480 or GEOL 1130 or equivalent biogeochemistry course. Enrollment limited to 15
Spr GEOL2920VS01 25407 Arranged (J. Tang)

GEOL 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

GEOL 2980. Research in Geological Sciences.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Enrollment is restricted to graduate students only

GEOL 2990. Thesis Preparation.
For graduate students who have met the tuition requirements and are paying the registration fee to continue active enrollment while preparing a thesis

German Studies

GRMN 0100. Beginning German.
A course in the language and cultures of German-speaking countries. Four hours per week plus regular computer and listening comprehension work. At the end of the year, students will be able to communicate successfully about everyday topics. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade submitted at the end of the course work in GRMN 0200 covers the entire year and is recorded as the final grade for both semesters
Fall GRMN0100 S01 14506 T 12:00-12:50(17) (J. Sokolosky)
Fall GRMN0100 S02 14507 T 12:00-12:50(17) (J. Sokolosky)
Fall GRMN0100 S03 14508 T 12:00-12:50(17) (J. Sokolosky)
Fall GRMN0100 S04 14509 T 12:00-12:50(17) (J. Sokolosky)
Fall GRMN0100 S05 14510 T 12:00-12:50(17) (J. Sokolosky)

GRMN 0110. Intensive Beginning German.
Students who wish to complete the GRMN 0100-0200 sequence in one semester may do so by enrolling in GRMN 0110 for two semester course credits. There are six hours per week in small drill sections conducted by fluent undergraduate teaching apprentices. Another three hours of class will be conducted by the faculty instructor. Students must register for both the lecture section and one conference section number and CRN to use when registering for this course.
Spr GRMN0110 S01 23884 TTh 9:00-10:20(08) (A. Brueggemann)

GRMN 0120. German for Reading.
Intensive introduction to German grammar and syntax for students without prior knowledge of German and from all academic disciplines. Primarily for graduate students but also open to undergraduates. The student who successfully completes this course will have the necessary foundation for reading and translating German texts for students
Spr GRMN0120 S01 23987 W 3:00-5:20(14) (J. Sokolosky)

GRMN 0200. Beginning German.
A course in the language and cultures of German-speaking countries. Four hours per week plus regular computer and listening comprehension work. At the end of the year, students will be able to communicate successfully about everyday topics and participate in the annual film festival. This is the second half of a year-long course. Students must have taken GRMN 0100 to receive credit for this course. The final grade for this course will become the final grade for GRMN 0100. If GRMN 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing
Spr GRMN0200 S01 23979 MWF 11:00-11:50(17) (J. Sokolosky)
Spr GRMN0200 S02 23979 T 12:00-12:50(17) (J. Sokolosky)
Spr GRMN0200 S03 23980 MWF 12:00-12:50(17) (J. Sokolosky)
Spr GRMN0200 S04 23980 T 12:00-12:50(17) (J. Sokolosky)
Spr GRMN0200 S05 23981 T 12:00-12:50(17) (J. Sokolosky)
Spr GRMN0200 S06 23981 MWF 1:00-1:50(17) (J. Sokolosky)

GRMN 0300. Intermediate German I.
Focuses on deepening students’ understanding of modern German culture by reading texts and viewing films pertinent to Germany today. Intended to provide a thorough review of German grammar and help students develop their writing, reading, listening, and speaking skills. Frequent writing assignments. Four hours per week. Recommended prerequisite: GRMN 0200
Fall GRMN0300 S01 14509 MWF 10:00-10:50(17) (J. Sokolosky)
Fall GRMN0300 S02 14509 Th 12:00-12:50(17) (J. Sokolosky)
Fall GRMN0300 S03 14510 Th 12:00-12:50(17) (J. Sokolosky)
Fall GRMN0300 S04 14510 MWF 1:00-1:50(17) (J. Sokolosky)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
GRMN 0400. Intermediate German II.
An intermediate German course that stresses improvement of the four language skills. Students read short stories and a novel; screen one film; maintain a blog in German. Topics include German art, history, and literature. Frequent writing assignments. Grammar review as needed. Four hours per week. Recommended prerequisite: GRMN 0300. WRIT
Spr GRMN0400 S01 23982 MWF 10:00-10:50(17) (J. Sokolosky)
Spr GRMN0400 S01 23982 Th 12:00-12:50(17) (J. Sokolosky)
Spr GRMN0400 S02 23983 Th 12:00-12:50(17) (J. Sokolosky)
Spr GRMN0400 S02 23983 MWF 1:00-1:50(17) (J. Sokolosky)

GRMN 0500F. Twentieth-Century German Culture.
A broad exploration of twentieth-century German culture using many kinds of written and visual texts (e.g. literature, journalism, film, art). While continuing to work on all four language skills (speaking, listening, reading, writing) students will gain more intensive knowledge about German culture, society, and history. In German. Recommended prerequisite: GRMN 0400. WRIT
Fall GRMN0500F S01 14511 MWF 10:00-10:50(17) (K. Detmer)

GRMN 0600B. Was ist Deutsch?:
In this course we will examine some of the ideas and myths that became entangled with the emerging notion of a "German" identity in the eighteenth and nineteenth centuries. Some of the terms that we will discuss include 'Kultur,' 'Bildung,' 'Freiheit' and 'Gesellschaft,' all of which have rich semantic histories. Conducted in German. Recommended prerequisite: one course in the GRMN 0500 series. WRIT
Spr GRMN0600B S01 24894 MWF 2:00-2:50(07) (K. Detmer)

GRMN 0750D. The Poetics of Murder: Crime Fiction from Poe to the Present.
In this course, we will trace the literary and cinematic depiction of murder and mayhem from the earliest manifestations of the genre to the present. Texts will include examples from the "Golden Age," the hard-boiled mode, the police procedural, and historical crime fiction. Enrollment limited to 20 first year students. FYS
Spr GRMN0750D S01 24918 TTh 9:00-10:20(08) (T. Knesche)

GRMN 0990E. The Rhine River: An Aesthetic, Environmental, and Political History.
From Hölderlin to Hugo, cannonballs to canalslization, this course examines representations of Europe's most important waterway in the modern period. Although it has long been seen as a "natural" border between France and Germany, the Rhine River has been anything but undisputed. Both the French and German nationalist movements claimed the river as their own, spawning a bi-lingual catalogue of songs, poems, and historical legends. We will approach the Rhine from an interdisciplinary perspective, with readings from economists, environmentalists, historians, and cultural studies scholars. We will be aided by a vast array of primary source material. Taught in English
Fall GRMN0990E S01 15586 MWF 12:00-12:50(12) (K. Goldberg)

GRMN 0999M. Marx and Money in Modern Germany.
No critique of capitalism has been more enduring than Karl Marx's nineteenth-century account of European finance and industry. We will engage Marx's work alongside a close reading of the societies Marx sought to critique. We will also contextualize the work of Marx's contemporaries and successors, including Engels, Simmel, Sombart, as well as look at the continuation of the "capitalism debate" in Weimar and Nazi Germany. Our focus on the societies in which these writings emerged, allows for a less obscured view onto these economic and social ideas. Issues of religion, gender, politics, militarism, and globalization will be considered. In English
Spr GRMN0999M S01 25854 MWF 12:00-12:50(05) (K. Goldberg)

GRMN 1200A. Critical Revolutions: Marx, Nietzsche, Freud.
This course introduces some of the fundamental insights of Karl Marx, Friedrich Nietzsche, and Sigmund Freud, three major thinkers and writers whose unsettling ideas revolutionized the way we understand ourselves and the modern world. We will examine such timely topics as capitalism and the ideology of the "market"; forms of religious fundamentalism and claims of truth; and the notion that, as a human being, I am fundamentally at odds with myself in elusive ways that nonetheless make me who I am. Intended for intellectually curious students from a wide variety of fields. Taught in English, knowledge of German not required
Fall GRMN1200A S01 15581 TTh 10:30-11:50(09) (G. Richter)

GRMN 1340M. Kafka's Writing.
Writing—vocation or duty, gift or curse, poison or antidote? This course provides an introduction to Kafka's stories, novels, journal entries, and letters, with a focus on his complicated, tortured relationship to the idea and practice of writing. We will explore how the difficulties of this relationship generate an enigmatic, tragi-comic oscillation between hope and despair that continues to fascinate readers today. This is a writing-intensive course, and the frequent short assignments will involve drafts, revisions, and individual consultations, with the aim of getting you to think critically about your own relationship to writing about literature. In English. Enrollment limited to 40. First year students require instructor permission. WRIT
Spr GRMN1340M S02 24625 MWF 10:00-10:50(03) (Z. Sng)

GRMN 1340Q. Vergangenheitsbewältigung: German Literature of Memory.
This course will examine one of the most loaded terms in German Studies, "the coming to terms with the past" or rather "the mastering of the past", which concerns German strategies of dealing with the atrocities of World War II and the Holocaust. Thus, this course will focus on the literary engagements with issues of trauma, memory, and remembrance. Authors include Adorno, Celan, Klüger, Grass, Weiss, Wolf, Müller, Timke, Kluge, and Sebald. The course will also have a closer look at contemporary debates regarding "Vergangenheitsbewältigung" and the culture of memory in Germany itself. In German. Recommended prerequisite: GRMN 0600 Fall GRMN1340Q S01 16506 MWF 1:00-1:50(06) (K. Detmer)

GRMN 1440F. Lyric Poetry From The Middle Ages to the Present.
Broad exploration of German poetry, including intersections between poetry/music/art: spiritual/wordly (medieval troubadours, Baroque); classical Greece/modern Germany (Goethe, Schiller, romantics, art songs), poetry/politics (Heine, Brecht), expressions/symbols (Rilke, expressionism), poetry after Auschwitz (Celan, Bachmann), contemporary reflections on history (V. Braun), poetry between cultures (Turkish-German poets, hip-hop). Intensive reading, discussions and vocabulary building. In German. Recommended prerequisite: one course in the GRMN 0800 series
Fall GRMN1440F S01 15944 MWF 11:00-11:50(04) (T. Knesche)

GRMN 1900G. Von der Aufklärung bis zur Klassik.
This course will cover the pinnacle of German literature in the 18th and 19th century, from the Enlightenment to Weimar Classicism. Texts by Lessing, Weiland, Goethe, Schiller, Kleist, Hölderlin, among others. Recommended prerequisite: GRMN 0600. In German
Spr GRMN1900G S01 25715 TTh 1:00-2:20(10) (T. Knesche)

Independent study on a particular topic related to German culture. In German or English. At the discretion of the instructor. Please check Banner for the correct section number and CRN to use when registering for this course

GRMN 1990. Senior Conference.
Special work or preparation of an honors thesis under the direction of a faculty member. Please check Banner for the correct section number and CRN to use when registering for this course

GRMN 2340C. German Modernism.
This seminar will explore German literary modernism from around 1880 to the 1930s. Schools and authors to be studied will include Naturalism (Hauptmann, Holz, Schlaf), Neo-Romanticism and Symbolism (Hofmannsthal, Rilke, George), Expressionism (Toller, Benn, Kaiser, Brecht), and New Objectivity (Kästner, Döblin, Fallada). In German. Required proficiency: GRMN 0600 Fall GRMN2340C S01 14743 W 3:00-5:20(14) (T. Knesche)

GRMN 2660K. Ontology of Life: Reading Heidegger's Being and Time with Derrida.
Martin Heidegger's Being and Time (1927) develops a "fundamental ontology" of Dasein, or human existence. Dasein, which in each case dies, is for the time being alive. How does mortal human being relate to other life forms? We will read Heidegger's masterpiece in its entirety with this question in mind, a question sharply honed by Jacques Derrida in his Of Spirit, Aporias, and The Beast and the Sovereign, that is, from the 1980s
until his death in 2004. We will proceed through close, careful, and caring readings. Intellectually curious participants from a variety of disciplines and backgrounds are welcome. Enrollment limited to 30.

Fall

GRMN2660S01 16321 F 3:00-6:20(15) (G. Richter)

**GRMN 2660L. Hoelderlin, in Theory.**
We will spend the semester reading the enigmatic writings of Friedrich Hoelderlin, with particular focus on the pivotal role that he has come to play in major philological and philosophical projects of our time. Critical readings include texts by Heidegger, Adorno, Benjamin, de Man, and Lacoue-Labarthe. Reading knowledge of German helpful but not required. Enrollment limited to 20.

Fall

GRMN2660LS01 15580 M 3:00-5:20(13) (Z. Sng)

**GRMN 2970. Preliminary Examination Preparation.**
For graduate students who have met the tuition requirement and are paying the Registration Fee to continue active enrollment while preparing for a preliminary examination.

**GRMN 2980. Reading and Research.**
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**GRMN 2990. Thesis Preparation.**
For graduate students who have met the tuition requirement and are paying the Registration Fee to continue active enrollment while preparing a thesis.

**GRMN XLIST. Courses of Interest to Students Concentrating in German Studies.**

**Fall 2012**
The following course may be of interest to students concentrating in German Studies. Please check the course listing of the sponsoring department for time and location.

**Music**

MUSC 1640G The Case for Wagner

**Spring 2013**
The following course may be of interest to students concentrating in German Studies. Please check the course listing of the sponsoring department for time and location.

**Humanities**

HMAN 2970H Realism, Idealism, and Modernity I: From Early Modernity through German Idealism

**Judaic Studies**

JUDS 0900X Introduction to Yiddish Language and Culture

**Modern Culture and Media**

MCM 0901G Digital Culture and Art After 1989

**Philosophy**

PHIL 2080C Realism, Idealism, and Modernity I: From Early Modernity through German Idealism

**Swedish**

**SWED 0300. Intermediate Swedish I.**
Continuing Swedish.

Fall

SWED0300 S01 16047 TTh 4:00-5:20(15) (A. Weinstein)

**SWED 0400. Intermediate Swedish II.**
Continuing Swedish. Recommended prerequisite: SWED 0300

Spr

SWED0400 S01 25384 TTh 4:00-5:20(15) (A. Weinstein)

**Hispanic Studies**

**HISP 0100. Basic Spanish.**
This fast-paced beginning course provides a solid foundation in the development of communicative skills in Spanish (speaking, listening comprehension, reading and writing) as well as some insight on the cultures of the Spanish-speaking world. Individual work outside of class prepares students for in-class activities focused on authentic communication. Placement: students who have never taken Spanish before, or have scored below 390 in SAT II, or below 240 in the Brown Placement Exam. Students who have taken Spanish before and those with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

Fall

HISP0100 S01 13993 MW 9:00-9:50(17) (V. Smith)
HISP0100 S01 13993 TTh 9:00-10:20(17) (V. Smith)
HISP0100 S02 13995 MW 10:00-10:50(17) (V. Smith)
HISP0100 S02 13995 TTh 10:30-11:50(17) (V. Smith)
HISP0100 S03 13996 TTh 10:30-11:50(17) (V. Smith)
HISP0100 S03 13996 MW 12:00-12:50(17) (V. Smith)
HISP0100 S04 13997 MW 11:00-11:50(17) (V. Smith)
HISP0100 S04 13997 TTh 1:00-2:20(17) (V. Smith)

**HISP 0110. Intensive Basic Spanish.**
A highly-intensive, two-semester sequence in one semester that carries 10 contact hours per week. Primarily for students with knowledge of Spanish, who have scored below 450 in SATII or below 340 in Brown Placement Exam. Students with little or no preparation in Spanish should consult with the Course Supervisor. Focused on acquisition of communicative skills (speaking, listening comprehension, and writing), and development of cultural awareness. With successful completion of the course students will be able to understand simple texts, carry on short spontaneous conversations involving everyday topics (such as modern daily life, health, art and culture, nature and the environment, and relationships) and write simple texts with good command of grammar and sentence structure. Ideal for students interested in fast-tracking their language learning to meet study abroad requirements. Double credit. Instructor permission required. Enrollment limited to 18: 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

Fall

HISP0110 S01 13998 TTh 11:00-12:50(04) (N. Schuhmacher)
HISP0110 S01 13998 MWF 11:00-12:50(04) (N. Schuhmacher)

**HISP 0200. Basic Spanish.**
A continuation of HISP 0100. This course continues to focus on acquisition of communicative skills (speaking, listening comprehension, reading and writing) as well as cultural awareness. With successful completion of the course students will be able to understand simple texts, carry on short spontaneous conversations involving everyday topics (such as modern day life and its pressures, health, art and culture, nature and the environment, relationships) and write simple texts with good command of grammar and sentence structure. Prerequisite: HISP 0100 or placement: SAT II scores between 400 and 450; Brown Placement Exam scores between 241 and 340. Students with an AP score of 3 or below must take the Brown Placement Exam. Ideal for students interested in fast-tracking their language learning to meet study abroad requirements. Double credit. Instructor permission required. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

Fall

HISP0200 S01 24235 MW 9:00-9:50(17) (N. Schuhmacher)
HISP0200 S01 24235 TTh 9:00-10:20(17) (N. Schuhmacher)
HISP0200 S02 24236 MW 10:00-10:50(17) (N. Schuhmacher)
HISP0200 S02 24236 TTh 10:30-11:50(17) (N. Schuhmacher)
HISP0200 S03 24237 TTh 10:30-11:50(17) (N. Schuhmacher)
### HISP 0300. Intermediate Spanish I

This course continues to develop and strengthen students' proficiency in the Spanish language, as well as to help them increase their cultural understanding. It seeks to develop both fluency and accuracy and to teach students to express, interpret, and negotiate meaning in context. Through the exploration of themes such as the individual and the community, health issues, traveling, multiculturalism and human rights, students focus on communication and learn to appreciate cultural differences. Pre-requisite: either HISP 0200, HISP 0110, or placement: SAT II scores between 460 and 510, or Brown Placement Exam scores between 341 and 410. Students with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

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### HISP 0400. Intermediate Spanish II

This course offers an exploration of the Spanish language and Hispanic cultures through a variety of thematic foci: the world of work, the arts, globalization and technology, leisure, and celebrations. It focuses on vocabulary building, the examination of some of the more difficult points of grammar, and moving students towards a more sophisticated level of comprehension and expression. Students work with readings, including literary texts; songs; film; and the visual arts. Prerequisite: HISP 0300 or placement: SAT II scores between 520 and 590 or Brown Placement Exam scores between 411 and 490. Students with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

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<td>A. Linarejos</td>
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### HISP 0500. Advanced Spanish I

Offers comprehensive work in listening, speaking, reading, and writing, with targeted grammar review. Students work with a variety of readings (literature, newspaper articles, etc.) and with art forms such as music and film, in order to develop oral and written expression and to explore issues relevant to the Hispanic world. Students explore topics of their own interest through student-led activities and presentations. Prerequisite: HISP0400 or placement: SAT II scores between 600 and 660, Brown Placement Exam scores between 491 and 570, or AP score of 4 in language or literature. Please check Hispanic Studies website (Undergraduate Programs) for course descriptions and placement information. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

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### HISP 0600. Advanced Spanish II

Offers continued, advanced-level work in speaking, listening, reading, and writing skills, with focused review of challenging aspects of Spanish grammar. Course materials include films, music, art works, and a variety of written texts (articles, stories, plays, a novella, etc.) chosen to promote class discussion and in-depth written analysis. There will be individual and group activities, including in-class presentations and creative writing projects. Prerequisite: HISP0500 or placement: SAT II scores between 670 and 740, Brown Placement Exam scores between 571 and 650, or AP score of 5 in language. Please check Hispanic Studies website (Undergraduate Programs) for course descriptions and placement information. Enrollment limited to 18. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period. Students with scores of 750 and above on the SAT II, 551 on the Brown Placement Exam, or 5 in AP Literature should consider offerings in the HISP 0730-0740-0750 range.

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For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Fall HISP0600 S01 14019 MW 9:00-10:50(17) (B. Bauer)
Fall HISP0600 S02 14031 MW 12:00-1:50(17) (B. Bauer)
Fall HISP0600 S03 14020 TTh 9:00-10:50(17) (B. Bauer)
Fall HISP0600 S04 14033 TTh 11:00-12:50(17) (B. Bauer)
Fall HISP0600 S05 14034 TTh 12:00-1:50(17) (B. Bauer)
Spr HISP0600 S01 24247 MW 9:00-10:50(16) (B. Bauer)
Spr HISP0600 S02 24248 MW 12:00-1:50(16) (B. Bauer)
Spr HISP0600 S03 24249 TTh 9:00-10:50(16) (B. Bauer)
Spr HISP0600 S04 24250 TTh 11:00-12:50(16) (B. Bauer)
Spr HISP0600 S05 24251 TTh 12:00-1:50(16) (B. Bauer)

**HISP 0730. Early and Contemporary Writers of Spanish America.**
An introduction to major authors, movements, and themes of Spanish literature from the Discovery to the present. This course also aims to develop students' oral and written expression in Spanish. Students are expected to engage in close reading and discussion of texts, as well as to revise their papers. Prerequisite: HISP 0600, or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above. WRIT

Fall HISP0730 S01 14627 MWF 9:00-9:50(02) (J. Ortiz Castillo)
Spr HISP0730 S01 24010 MWF 9:00-9:50(02) ‘To Be Arranged’

**HISP 0740. Intensive Survey of Spanish Literature.**
An introduction to the major authors and literary movements of Spanish literature from the Middle Ages to contemporary times. Focuses on building critical vocabulary. Also aims to develop students’ written and oral expression in Spanish. Preparatory course for 1000-level courses for students who achieve the highest placement in Spanish. Prerequisite: HISP 0600, or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above. WRIT

Fall HISP0740 S01 14563 TTh 1:00-2:20(10) (M. Vaquero)
Spr HISP0740 S01 24011 MWF 10:00-10:50(03) ‘To Be Arranged’

**HISP 0750B. Hispanics in the United States.**
Designed to bridge academic learning about Hispanic/Latino culture and volunteer work in agencies serving Hispanics in Providence. Readings, films, and guest presentations focus on issues of concern to these groups. Spanish language learning occurs in the classroom and the community, where students have the opportunity to enrich and test course content. Prerequisite: HISP 0600 or placement: SAT II scores of over 750, 5 in AP Literature or 651 and over in the Brown Placement Exam. Instructor permission required

Spr HISP0750B S01 23971 MWF 1:00-1:50(06) (B. Bauer)

**HISP 0750M. The Spanish Civil War: Image, Text, and Memory.**
The Spanish Civil War (1936-1939) has inspired a vast trove of scholarly works. This course will draw on representations of the Spanish capital in literature, film, and other forms of media, in order to engage students in understanding the historical context of the war and its impact on Spanish society. Prerequisite: HISP 1250, or HISP 1290, or HISP 0600, or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above. WRIT

Fall HISP0750M S01 16172 TTh 2:30-3:50(11) (B. Bauer)

**HISP 1210C. History of the Spanish Language.**
Introduction to the genealogy and development of the Spanish language. Includes the historical and cultural events that deeply influenced the shaping of the language, the nature of Medieval Spanish, and the development of the language beyond the Iberian Peninsula, especially in those years that he developed the entire philosophical grounding of his future literary work. We will work to decipher Borges' philosophy with other arts and means of communication. We will also relate these novels to Spanish and International new realities as well as to aesthetic and intellectual global trends, specially Latin American, American and European. Prerequisite: HISP 0730 or 0740

Fall HISP1210C S01 16265 TTh 2:30-3:50(11) (M. Vaquero)

**HISP 1250A. Madrid: History and Culture.**
This course explores cultural production in and about Madrid during key moments of the city's history from its establishment as the capital of imperial Spain in the 16th century through its reinvention as a major international tourist destination in the late 20th. Multimedia in orientation, the course draws on representations of the Spanish capital in literature, painting, photography, maps, music, and film. Topics include: self-invention in the court city, modernization and its discontents, Madrid and Spanishness, provincialism versus internationalism. Prerequisite: HISP 0730 or 0740

Spr HISP1250A S01 25948 TTh 1:00-2:20(10) (L. Bass)

**HISP 1290R. Novela y cine en la España democrática.**
A partir de la lectura y visionado de algunas novelas y películas fundamentales se discutirá la imagen de la España democrática en la ficción literaria y cinematográfica. Enrollment limited to 20

Fall HISP1290R S01 16455 T 4:00-6:20(15) (V. Mora Suarez-Varela)

This course will focus on a selection of new Spanish authors from this period of intense creativity and innovation, our course intends to bring a lively image of the novel, discussing forms, styles, and interactions with other arts and means of communication. We will also relate these novels to Spanish and International new realities as well as to aesthetic and intellectual global trends, specially Latin American, American and European. Prerequisite: HISP 0730 or 0740

Fall HISP1290T S01 16529 MWF 2:00-2:50(07) (V. Mora Suarez-Varela)

**HISP 1330K. Contemporary Poetry of Latin America.**
An exploration of some representative poets and movements in modern Latin American poetry, with special emphasis on the Latin American Modernists, the Avant-Garde and contemporary trends. Topics include: analytical techniques, historicity, poetry and translation, and a creative writing workshop. For advanced students only. Prerequisites: HISP 0740, or HISP 0600 and HISP 0730. Previous experience in 1000-level Spanish courses desirable

Fall HISP1330K S01 14930 TTh 9:00-10:20(08) (A. Mazzucchelli)

**HISP 1330P. The Philosophy of Borges.**
Jorge Luis Borges devoted several essays during his youth to developing his philosophical understanding of concepts like "personality," "memory," "reality," "narrative" and "style." At some point later in his literary career, he attempted to erase the memory of those years from his public existence, to the extent that most of the books published during the 1920s were never reprinted during Borges' lifetime. Nevertheless, it was in those years that he developed the entire philosophical grounding of his future literary work. We will work to decipher Borges' philosophy through the reading and interpretation of his essays, narratives and poems, including several key texts from his first three suppressed prose volumes (Inquisiciones, El tiempo de mi esperanza, and El idioma de los argentinos). In English, with some Spanish readings. Prerequisite: HISP 0730 or 0740

Spr HISP1330P S01 25858 MWF 2:00-2:50(07) (A. Mazzucchelli)

**HISP 1330Q. Formas breves.**
This course will study masterworks in Spanish through the lens of the "short form": poems, short stories, novellas, and microstories. Our readings will be transhistorical and trans-Atlantic, ranging from early modern Iberian poetic forms, through Romantic, modernista, and avant-garde experiments in Spain and Latin America, to long, short, and even shorter stories from contemporary Argentina, Chile, Mexico, and Peru. Authors will include Francisco de Quevedo, Federico García Lorca, Pablo Neruda, Jorge Luis Borges, Julio Cortázar, Roberto Bolaño, Luisa Valenzuela, and many others. Prerequisite: HISP 0730 or 0740

Fall HISP1330Q S01 16514 TTh 1:00-2:20(10) (M. Clayton)

**HISP 1370L. Gabriel Garcia Marquez and the Politics of Magic Realism.**
Estudiaremos las principales novelas del autor, desde EL coronel no tiene quien le escriba hasta Cien años de soledad, con especial atención al realismo mágico y las ideas sobre la novela que cultivó el autor. Nuestra
discusión se situará en el proceso social y político latinoamericano así como en las mitologías de la cultura popular. Prerrequisito: HISP 0730 or 0740

Fall HISP1370L S01 16048 TTh 10:30-11:50(09) (J. Ortega)

HISP 1900L. Theories of Literature and Culture in a Hispanic Context. Introduces key contemporary perspectives in the fields of literary and cultural theories from a transatlantic perspective. Emphases will be on definition of literature, theories of the novel and of literary genres, theories of interpretation, Latin American and Spanish theoretic perspectives like hybridism, "transculturación" and the theory of Baroque, and a revision of modern approaches to culture (critical theory, ecology, gender theory, post-structuralism, etc.). Spanish and Latin American texts will be used as a counterpoint to theory. Offered for senior concentrators in the Hispanic Studies department in their last semester. Readings by Carpenter, Nietzsche, Aristote, Derrida, Foucault, Deleuze, Simmel, Paz, Borges, Abram, Rama and others. Open to senior Hispanic studies concentrators

TTh 3:00-5:20(13)

Fall HISP1900L S01 24232 TTh 9:00-10:20(08) (A. Mazzucchelli)

HISP 1990. Senior Conference. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

HISP 2030G. Mester de clerecia. This course will focus on different works of "mester de clerecia" from the 13th and 14th centuries, and provide an overview of current thinking regarding their nature and origin, while at the same time seeking to interrogate many of the prevailing assumptions and received ideas of Spanish literary historiography. Works and topics will include: Libro de Alexandre (ideologies of power), Libro de Apolonio (the intellectual hero), Berceo’s works (hagiography, clerical poetry, the rise of literacy), Poema/ Libro de Fernán González (epic hero), and Libro de buen amor (seduction manual/spiritual guide)

Spr HISP2030G S01 24385 M 3:00-5:20(13) (M. Vaquero)

HISP 2160L. Canonical Literature of the Spanish Golden Age. Intended to deepen understanding of canonical literary works of 16th- and 17th-century Spain selected from the Golden Age prelim exam list. Critical readings of texts in their social, historical, and cultural contexts will be accompanied by critical reflection on why we read these works in the first place—that is, on canon formation—and on the genealogy and validity of the "Golden Age" as period descriptor. We will study various aspects of book history including print and manuscript culture, regulation of the book trade, practices of reading, concepts of authorship, and debates about poetic language as well as the value of imaginative literature

Spr HISP2160L S01 16555 M 3:00-5:20(13) (L. Bass)

HISP 2350G. Teoría y Práctica Poética en Cesar Vallejo. Seminario dedicado a estudiar en profundidad la poesía hermética de Vallejo. Analizaremos su práctica poética así como su teoría del poema a través de la evolución de su obra y pensamiento

Fall HISP2350G S01 14983 T 3:00-5:20(15) (J. Ortega)

HISP 2350H. The History of Wonder in Colonial Spanish American Letters. The notion of wonder (asombro, maravilla) played a determining role in the Spanish and Creole writings of the Spanish American colonial period. The volatile aesthetic of wonder raises and implicates such important issues as otherness, exoticism, category crisis, and identity formation. A studies course examining the role of wonder in New World historiographic and literary writings of the 16th and 17th centuries

Spr HISP2350H S01 23973 F 3:00-5:20(15) (S. Merrim)

HISP 2350M. Poetics of the Avant-Garde in Latin America. This course traces the shocks and flows of avant-garde activities through Latin America in the first decades of the twentieth century. We will explore manifestoes, poetry, artworks, and film from Argentina, the Caribbean, Chile, Brazil, Mexico, and Peru, from creacionismo through Brazilian modernismo, ultrazgo and estridentismo, poetry, and teconindigenismo, with occasional detours into Iberian experiments. Authors will include Vicente Huidobro, Oliverio Girondo, César Vallejo and Pablo Neruda. Our reading will take into consideration three overlapping backdrops: regional and continental debates over culture and politics; contemporary experiments among the European avant-gardes; and local developments in technology and mass culture

Fall HISP2350M S01 16513 F 3:00-5:20(15) (M. Clayton)

HISP 2350N. Biography, Autobiography and the Representation of the Subject in 19th Century Latin America. The 19th Century was the century of the Self. In Latin America the construction of the Nation ran parallel with the construction of a new image for the individual, and both were produced in writing. We will discuss some of these narratives of the self, biographies, autobiographies, journals, personal memories and letters. Readings from Francisco de Miranda, Simón Bolívar, Juana Manuela Gorriti, Esteban Echeverría, Eugenio María de Hostos, Domingo F. Sarmiento, Teresa Wilms Montt, Rubén Darío, José Martí and others

Fall HISP2350N S01 16566 W 3:00-5:20(14) (A. Mazzucchelli)

HISP 2450. Exchange Scholar Program

HISP 2900. Theory and Methods of Foreign Language Teaching. How are second languages acquired? How can instruction optimize acquisition? How do we evaluate, improve or create effective teaching materials? This course introduces the theory of foreign language learning and teaching and seeks to help language teachers implement communicative language teaching through reflective practice. Written permission required for undergraduates

Spr HISP2900 S01 24233 T 3:00-5:20(15) ‘To Be Arranged’

HISP 2970. Preliminary Examination Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

HISP 2980. Research in Spanish and Latin American Literature. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

HISP 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

HISP 2991. Thesis Preparation. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

HISP XLIST. Courses of Interest to Concentrators in Hispanic Studies. Fall 2012 The following courses, listed in other departments, may be of interest to students concentrating in Hispanic Studies. Please check the course listings of the sponsoring department for times and locations.

Theatre Arts and Performance Studies

TAPS 1281R mujeres ARRIBA Feminist Playwrights in Spanish Theater Spring 2013

The following courses, listed in other departments, may be of interest to students concentrating in Hispanic Studies. Please check the course listings of the sponsoring department for times and locations.

Comparative Literature

COLT 1421V Modernisms North and South: Ulysses in Dublin, Paris, and Buenos Aires

Portuguese and Brazilian Studies

POBS 1601C From Dictatorship to Democracy in the Iberian Peninsula: Transformations and Current Challenges

History

HIST 0410. Histories of East Asia: China. China’s ascendancy as a global economic power in recent decades has been regarded by many as a reclaiming of its former glory. In introducing the history of China from earliest times to the present, this course aims to provide an understanding of the making and remaking over millennia of what we call Chinese civilization, with its changes, contingencies, and continuities, its various claims to greatness, and its many recurring challenges. This course is open to all students and assumes no prior knowledge of Chinese culture, history, or language. Readings consist of both a textbook and relevant primary sources. E

Fall HIST0410 S02 16494 TTh 9:00-10:20(08) (V. Seow)
HIST 0420. Histories of East Asia: Japan.
This is a course for students who have always been curious about Japan but haven’t had an opportunity to explore that interest fully, for anyone in search of a better understanding of the historical contexts that shaped Japan’s complex relationships with China, Korea, and the West, and for all those who wish to broaden their exposure to the histories of East Asia. Open to all students, this course assumes no prior knowledge of Japanese culture, history, or language. E
Spr: HIST0420 S01 24/731 MWF 1:00-1:50(06) (K. Smith)

For four centuries, the theme of America having a special place in the world has dominated American politics and culture, though many have questioned or challenged American distinctiveness. This course examines articulations and critiques of American exceptionalism, using sources from American history and literature, from comparative history and literature, and from modern American culture and politics. It is intended both as an introduction to American history and as a thematic class, focused on the U.S. in a global context, which is different from a traditional high school or first-year college American history class. WRIT E
Fall
HIST0510 S01 15324 MWF 1:00-1:50(06) (M. Vorenberg)
Fall
HIST0510 S01 15324 F 1:00-1:50(06) (M. Vorenberg)
Fall
HIST0510 S01 15324 M 1:00-1:50(06) (M. Vorenberg)
Fall
HIST0510 S01 15324 W 1:00-1:50(06) (M. Vorenberg)

HIST 0520. American History since 1877.
A survey of social, cultural, and political trends from 1877 to the present focusing primarily on the lives of ordinary Americans. M
Spr
HIST0520 S01 24/733 TTh 9:00-10:20(08) (H. Chudacoff)

HIST 0930C. A World Without Borders: Introduction to Yiddish Culture and Language (JUDS 0980X).
Interested students must register for JUDS 0980X S01 (CRN 23671)

HIST 0930L. History of the Holocaust (JUDS 0640).
Interested students must register for JUDS 0640 S01 (CRN 23667)

HIST 0930J. The World of Byzantium (CLAS 0660).
Interested students must register for CLAS 0660 S01 (CRN 15534)

HIST 0930K. Islam and Modernity (RELS 0600).
Interested students must register for RELS 0600 S01 (CRN 24827)

HIST 0940A. History of Intercollegiate Athletics (EDUC 0850).
Interested students must register for EDUC 0850 S01 (CRN 24857)

HIST 0940B. The Campus on Fire: American Colleges and Universities in the 1960's (EDUC 0400).
Interested students must register for EDUC 0400 S01 (CRN 15485)

HIST 0940C. When Leaders Lie: Machiavelli in International Context (ITAL 0751).
Interested students must register for ITAL 0751 S01 (CRN 14472)

HIST 0940G. From Amsterdam to Istanbul: Christians, Moslems, and Jews (JUDS 0050E).
Interested students must register for JUDS 0050E S01 (CRN 15685)

HIST 0960C. Money, Power, Sex and Love: The Modern Jewish Family in Europe and America (JUDS 0980).
Interested students must register for JUDS 0980V S01 (CRN 23668)

HIST 0970P. Culture and U.S. Empire.
This seminar examines the relationship of American culture to U.S. imperial project. We will look at how cultural ideologies such as those about race, gender, and American exceptionalism have not only shaped Americans’ interactions with other peoples but also justified the spread of U.S. power. Enrollment limited to 20 first year students. FYS M
Spr
HIST0970P S01 24759 M 3:00-5:20(13) (N. Shibasawa)

HIST 0970S. Sport in American History.
This course covers the relationship of sports to aspects of American culture since 1900. Topics include gender, race, amateurism, professionalism, intercollegiate athletics, and sports heroes. Enrollment limited to 20 first year students. FYS M
Fall
HIST0970S S01 15286 M 3:00-5:20(13) (H. Chudacoff)

HIST 0971G. The Age of Revolutions, 1760-1824.
In the middle of the eighteenth century, the Americas belonged to a handful of European monarchies; within a few decades, most of the Americas was composed of independent republics, and some of the European monarchs were either deposed or quaking on their thrones. What happened? Usually considered separately, the revolutions in British North America, France, Saint-Domingue (Haiti) and Spanish America had diverse local circumstances yet composed a single cycle of intellectual ferment, imperial reform, accelerating violence and, ultimately, the forging of new political communities. This course will examine the revolutions that helped create the world we live in today. Enrollment limited to 20 first year students. FYS WRIT
Fall
HIST0971G S01 15663 Th 4:00-6:20(15) (J. Mumford)

HIST 0971H. The Philosophers' Stone: Alchemy from Antiquity to Harry Potter.
As both an intellectual tradition and a set of practices, alchemy has a long, rich, and varied history in Egypt, China, the Middle East, Europe, and North America. In this seminar, we will examine the evolution of this tradition, with particular attention to alchemy’s changing relationship to art, magic, medicine, science, and mysticism. We will also consider cultural images of the alchemist as sage, fool, and fraud, among others. Enrollment limited to 20 first year students. FYS WRIT
Fall
HIST0971H S01 16344 M 3:00-5:20(13) (T. Nummedal)

HIST 0971L. Act Your Age!: Age Consciousness in the West since 1500.
This course examines changing conceptions of age beginning in Early Modern Europe through 20th century Europe and North America. From Shakespeare’s "Seven Ages of Man," to the rise and fall of the Developmental Paradigm in the late 20th century, this course will explore the historical literature on the ways that human age has been constructed, understood, and worried about, from infancy to decrepitude. Enrollment limited to 20 first year students. FYS M
Spr
HIST0971L S01 25566 MW 9:00-10:20(02) (S. Lassonde)

HIST 0980E. Continental Histories.
Sometimes human history is seen as a competition, as if people on different continents were the teams and the finish line is the present. This seminar probes the power of this pervasive, yet flawed idea. Close consideration is given to environment, economics, conceptions of race, imperialism, and the nature of historical analysis. Enrollment limited to 20 first year students and sophomores
Spr
HIST0980E S01 24830 F 3:00-5:20(15) (N. Jacobs)

HIST 0980G. The Search for King Arthur.
The legend of King Arthur is one of the most enduring stories to emerge from medieval Britain. Drawing on evidence from written and archaeological sources, this class delves into the shadowy period in which the legend is based, between the collapse of Roman imperial power in Britain and the establishment there of the Anglo-Saxon and Celtic kingdoms that would succeed the empire. The class will also take students inside the historian’s workshop, exposing them to the tools, texts, and objects from which historians and archaeologists construct their interpretations of how the inhabitants of Arthur’s Britain lived and died. Enrollment limited to 20 first year students and sophomores
Spr
HIST0980G S01 25272 W 3:00-5:20(14) (J. Conant)

Focuses on the ancient Greeks, Romans, and Jews, from 300 B.C.E. to 400 C.E. Covers primarily social, philosophical, and religious areas of contention and accommodation, ending with the late Antique, Christianity, and rabbinic Judaism. P
Fall
HIST1000B S01 15318 TTh 9:00-10:20(08) (K. Sacks)

HIST 1020. Living Together: Muslims, Christians, and Jews in Medieval Iberia.
A pressing issue in today’s pluralistic societies is how people of different identities (religious, ethnic, etc.) can live together. This course explores a slice of history that can help us think through questions of difference in our own world: medieval Spain, where for centuries Muslims, Christians, and Jews lived in close proximity. Often through explicit juxtaposition with modern debates, this course examines how these people understood and structured their relations with each other in the Iberian Peninsula between 711 and 1492. Themes include: identity and cultural definition; power and religious violence; tolerance and intolerance; acculturation and assimilation; gender and sexuality. WRIT P
HIST 1030. The Long Fall of the Roman Empire.
Once thought of as the "Dark Ages," this period of western European history should instead be seen as a fascinating time in which late Roman culture fused with that of the Germanic tribes, a mixture tempered by a new religion, Christianity. Issues of particular concern include the symbolic construction of political authority, the role of religion, the nature of social loyalties, and gender roles. P
Fall HIST1030 S01 15822 TTh 1:00-2:20(10) (J. Conant)

HIST 1031. The Viking Age.
For two centuries, Viking marauders struck terror into hearts of European Christians. Feared as raiders, Norsemen were also traders and explorers who maintained a network of connections stretching from North America to Baghdad and who developed a complex civilization that was deeply concerned with power and its abuses, the role of law in society, and the corrosive power of violence. This class examines the tensions and transformations within Norse society between AD 750 and 1100 and how people living in the Viking world sought to devise solutions to the challenges that confronted them as their world expanded and changed. P
Spr HIST1031 S01 25169 MWF 10:00-10:50(03) (J. Conant)

HIST 1040. Crusaders and Cathedrals, Deviants and Dominance: Europe in the High Middle Ages.
Popes named Joan, Gothic cathedrals, and crusaders—all these were produced by rich world of the western European Middle Ages. The cultural, religious, and social history of this period are explored with special attention to the social construction of power, gender roles, and relations between Christians and non-Christians. P
Spr HIST1040 S01 24734 TTh 9:00-10:20(08) (A. Remensnyder)

This course connects natural knowledge to larger developments in Renaissance Europe such as noble court culture, artistic innovation, commercial exchange, exploration and colonization. Topics include: alchemy, early museums, the visual culture of science, and the impact of New World nature on Old World knowledge systems. P
Spr HIST1140 S01 24739 MWF 1:00-1:50(06) (T. Nummedal)

A consideration of developments in 19th-century physics, chemistry, biology, and mathematics in their relation to the natural and social worlds. Explores the ways scientific theories affected and were affected by views of the nature and potential of scientific knowledge. Also addresses the development of institutional structures and their effects on theories generated. No formal prerequisites-open to science and humanities students. M
Fall HIST1190 S01 15313 MWF 11:00-11:50(04) (J. Richards)

HIST 1210. European Intellectual History: Discovering the Modern.
A lecture course, primarily for juniors and seniors, that focuses on salient philosophic, artistic, and ideological currents of 19th-century Europe. Beginning with the crisis of political and cultural legitimacy posed by the French Revolution, it concludes with the consolidation of bourgeois culture in the 1860s and 1870s and the two great scientific systematicizers of these decades: Darwin and Marx. M
Fall HIST1210 S01 15291 MWF 1:00-1:50(06) (M. Gluck)

A sequel to HIST 1210 focusing on radical intellectual and cultural currents that challenged and destabilized the assumptions of Victorian high culture during the fin de siecle. Through a careful reading of primary texts by Hobhouse, Nietzsche, Weber, and Freud. The course explores issues such as the rise of mass consumer culture, neoliberal and neofascist politics, philosophic irrationalism, psychoanalysis, and the woman question. WRIT M
Spr HIST1220 S01 24746 MWF 2:00-2:50(07) (M. Gluck)

HIST 1240. Reason, Revolution and Reaction in Europe.
This course will explore cultural, economic, and political forces taking place in the globalizing Europe of the 18th and 19th centuries in Spr HIST1240 S01 24741 TTh 10:30-11:50(09) (J. Richards)

HIST 1280. English History, 1529-1660.
Examines politics, religion, and society from the Protestant Reformation to the Puritan Revolution—a period of rapid and dramatic change when the world, for most English people, was turned upside down. Considers the experiences and concerns of ordinary men and women, as well as the elite. Takes in Scotland, Ireland, and the great migration to New England. P
Fall HIST1280 S01 15299 MWF 2:00-2:50(07) (T. Harris)

A survey of British history from the restoration of monarchy to the Wilkes affair and the loss of the American colonies. In addition to political developments such as the Glorious Revolution and the rise of party, examines political ideology (including the great political theorist, John Locke) and various themes in social history (such as crime, popular protest, the sexual revolution, and the experiences of women). P
Spr HIST1290 S01 24747 MWF 2:00-2:50(07) (T. Harris)

HIST 1330. Twentieth Century Europe: The Age of Extremes.
Introducing students to the history and culture of twentieth-century Europe, we will discuss the major political, cultural, intellectual, economic changes that have characterized the history of Europe from 1890s to present time. Exploring the different trends in European history, and engaging with the major theoretical debates underlying the study of modern Europe. Course topic includes: total war; rise of mass politics and culture; Fascism, Nazism and the Holocaust; Communism and the Cold War; anti-colonialism and postcolonial European identity; Welfare state; post-Cold War era, using a variety of texts, including scholarly contributions, literary texts, autobiographical accounts, memoirs, film and film documentaries. M
Spr HIST1330 S01 25880 TTh 9:00-10:20(08) (L. Santarelli)

With Greece in crisis and the Middle East experiencing an "Arab Spring" the Eastern Mediterranean is again hitting the headlines. This course offers a historical perspective to current developments by examining the social, political and cultural transformations between the mid-19th century and the 1922 Greco-Turkish exchange of populations while questioning the current image of the Eastern Mediterranean as a model of cosmopolitan conviviality and an archetype of unbridled violence. Topics include state-building in Greece, the modernization of the Ottoman Empire, colonialism in Egypt, nationalism and coexistence, the Balkan wars and population movements, and, finally, contemporary nostalgias for fin-de-siecle Mediterranean
Fall HIST1361 S01 16438 MWF 12:00-12:50(12) (P. Papamichos Chronakis)

Why did some of the first European countries to introduce democratic institutions end up as dictatorships? This course examines the history of democracy and dictatorship in Spain, Italy, and Greece by looking at the development of liberal democracy, the challenges it faced, and the eventual establishment of dictatorial regimes during the nineteenth and twentieth centuries. Topics include the relation between liberalism, authoritarianism, and nationalism; civil society and its discontents; military intervention in politics and proto-fascist movements; the character of charismatic leadership; the introduction of repressive state policies; and the role of violence and propaganda in the consolidation of authoritarian rule. M
Spr HIST1362 S01 25832 MWF 12:00-12:50(05) (P. Papamichos Chronakis)

HIST 1410. Russia in the Era of Reforms, Revolutions, and World Wars.
This course examines the rapid industrialization, modernization, and urbanization of Russia from the era of the "Great Reforms" (1860s) through the Second World War. We will examine both the growing discontentment among the population with autocracy's efforts to maintain power and the Bolshevik effort to recreate the economy, society, and everyday life. Topics will include Russian Marxism and socialism, terrorism, the Russian revolutions of 1917, the rise and consolidation of Soviet socialism, famine, the red terror, and World War II. M
Fall HIST1410 S01 15310 TTh 1:00-2:20(10) (E. Pollock)

Brown University
HIST 1420. The Collapse of Socialism and the Rise of New Russia. This course examines late Soviet socialism, the collapse of the USSR, and the emergence of the new Russia. The following themes are emphasized in lectures and readings: the major features of de-Stalinization; Soviet and Russian foreign policy during and after the Cold War; the domestic and international causes and consequences of the collapse of the Soviet Union; and the emergence of a new Russian government and national identity during the 1990s and early 2000s. Fall Spr HIST1420 S01 24749 MWF 10:00-10:50(03) (E. Pollock)

HIST 1430. Truth on Trial: Justice in Italy, 1400-1800. Law courts had a profound impact on Italian society and culture between the Renaissance and the Enlightenment. Law courts helped define what constituted deviance, legitimate knowledge, and individual rights. They did so in a long ago world in which it was possible to imagine that some gifted individuals could fly, that certain people were created superior to others, and that the sun revolved around the earth. From the persecution of heretics and witches, to the trial of Galileo and the increasing use of courts by women and other marginalized groups, the Italian legal arena mediated what was political, social, scientific, and religious truth. By the eighteenth century many judicial practices came under criticism, including the use of torture and the death penalty. How did reformers attempt to remake the legal regime and the society in which it was by then so intricately entangled? LILE WRIT P Spr HIST1430 S01 24748 TTh 1:00-2:20(10) (C. Castiglione)

HIST 1453. Civilization, Empire, Nation: Competing Histories of the Middle East. The "Middle East" is a recent invention. A hundred years ago, none of the countries currently populating this region existed. This course considers how historians have used the concepts of civilization, empire, and nation to construct competing narratives about this region's past from the rise of Islam to the present. Since facts acquire meanings through interpretative frameworks, we ask: What is privileged and what is hidden in these narratives? And what would the history of this region look like if we could see it through the eyes of the peoples who have long lived there? E Spr HIST1453 S01 25774 TTh 1:00-2:20(10) (B. Doumani)

HIST 1491. History of Medicine II: The Development of Scientific Medicine in Europe and the World. From the 18th century onward, Western medicine has claimed universal validity due to its scientific foundations, relegating other kinds of medicine to the status of "alternative" practices. The course therefore examines the development of scientific medicine in Europe and elsewhere up to the late 20th century, and its relationships with other medical ideas, practices, and traditions. Students with a knowledge of languages and the social and natural sciences are welcome but no prerequisites are required. Not open to first year students. E Fall HIST1491 S01 15434 MWF 12:00-12:50(12) (R. Parks)

HIST 1520C. The Modern Chinese Nation: An Idea and Its Limits. How did the Chinese empire become a nation-state? This question drives a survey of the history of China, Taiwan, Hong Kong and Chinese societies overseas from 1895 to the present. We will explore a variety of conceptions of the Chinese nation and the rise of new state formations, investigating the extent to which they shaped the way people experienced everyday life. We will also pay attention to those who have been excluded or by unwillingly drafted into these processes, or who live outside them altogether, looking at other ways society has been organized and culture defined. M Spr HIST1520C S01 25509 MWF 9:00-9:50(02) (R. Nedostup)

HIST 1530. Modern Korea: Contending with Modernity. This course examines the extraordinarily rapid revolution of Korea from isolated, agrarian society into a culturally modern, industrialized, and democratic nation that is an important actor on the world stage. It also will investigate how a non-Western society generates its own inspiration for human relations, social structure, political and cultural values. Includes coverage of North Korea. M Fall HIST1530 S01 15307 MWF 10:00-10:50(03) (J. McClain)

HIST 1540. Samurai and Merchants, Prostitutes and Priests: Japanese Urban Culture in the Early Modern Period. Examines the cultural traditions of the urban samurai, the wealthy merchant, and the plebian artisan that emerged in the great metropolises of Edo, Osaka, and Kyoto during the early modern period. Focuses on the efforts of the government to mold certain kinds of cultural development for its own purposes and the efforts of various social groups to redirect those efforts to suit their desires and self-interest. P Spr HIST1540 S01 24750 TTh 9:00-10:20(08) (J. McClain)

HIST 1580. Gandhi’s India: South Asia Before 1947. This course will examine the making of modern South Asia, from the decline of Mughal rule and the emergence of Company Raj, up to present. The course will particularly focus on colonialism and nationalism, the relationship between the colonial state and post-colonial nation-states of South Asia, to understand concepts of empire, resistance and ‘postcoloniality’. M Fall HIST1580 S01 15325 TTh 10:30-11:50(09) (V. Zamindar)

HIST 1610. Reform and Rebellion: Mexico, 1700-1867. This course focuses on Mexico's difficult transition from colony to nation. We will examine the key political, social, economic, and cultural developments during this period. Major topics will include: the paradoxical eighteenth century, which saw Mexico emerge as the most prosperous region of the Spanish empire, even as social and economic tensions deepened; the outbreak of peasant rebellions in the early nineteenth century; the elite-led movement for independence; the economic decline and political turmoil of the early republic; foreign interventions by the United States and France; and the rise of the Liberals as Mexico’s dominant political force. E Fall HIST1610 S01 15288 MWF 10:00-10:50(03) (R. Cope)

HIST 1620. Colonial Latin America. Colonial Latin America, from Columbus’s voyage in 1492 to Independence in the early 1800s, was the creation of three peoples: Europeans, Native Americans, and Africans. The Spanish and Portuguese conquerors brought with them the world of the Crusades, the Inquisition, and the Renaissance. Native Americans lived there already, in rich empires and hunter-gatherer bands. Africans came as slaves from Senegal, Nigeria, Congo and Angola, bringing old traditions and creating new ones. These diverse peoples blended together to form a new people. This was a place of violence, slavery and oppression -- but also of art, faith, new societies and new ideas. P Spr HIST1620 S01 24751 TTh 2:30-3:50(11) (J. Mumford)

HIST 1670. History of Brazil. This course charts the history of Brazil from Portuguese contact with the indigenous population in 1500 to the present. It examines the country’s political, economic, social, intellectual, and cultural development to understand the causes, interactions, and consequences of conflict, change, and continuity with Brazil’s European, African, and Native American roots. E Fall HIST1670 S01 15295 TTh 2:30-3:50(11) (J. Green)

HIST 1701. The Shot Heard 'Round the World: The History of Revolutionary America. For those who lived through it, the American Revolution was a very personal experience. The struggle for American liberties pitted neighbors against neighbors, tore local communities apart, destroyed families, ruined livelihoods and ended lives. But the Revolution was also a global phenomenon. Its ideological origins lay in ancient Greece and Rome. Its economic causes stretched around the globe. Its ideals and values have inspired generations. Only by studying the complexity of the Revolution, and by placing the local experiences of newly-minted "Americans" within the global backdrop of their times, can this formative stage of United States history be fully understood. P Spr HIST1701 S01 25796 TTh 6:30-7:50(12) (S. Roberts)

HIST 1750. American Politics and Culture Since 1945. History of the United States between the end of World War II and the present. Major themes and topics include race and civil rights, women’s history and feminism, the Cold War, Vietnam, and U.S. foreign policy, suburbanization and the urban crisis, the rise and fall of the welfare state, and a history of consumption and popular culture. M Fall HIST1750 S01 15320 Th 2:30-3:50(11) (R. Self)

HIST 1750. American Politics and Culture Since 1945. History of the United States between the end of World War II and the present. Major themes and topics include race and civil rights, women’s history and feminism, the Cold War, Vietnam, and U.S. foreign policy, suburbanization and the urban crisis, the rise and fall of the welfare state, and a history of consumption and popular culture. M Fall HIST1750 S01 15320 Th 2:30-3:50(11) (R. Self)
HIST 1755. The Intimate State: The Politics of Gender, Sex, and Family in the U.S., 1873-Present. Examines the "intimate politics" of gender norms, sex and sexuality, and family structure in American history, from the 1870s to the present, focusing on law and political conflict. Topics include laws regulating sex and marriage; social norms governing gender roles in both private and public spheres; the range of political perspectives (from feminist to conservative) on sex, sexuality, and family, and the relationship of gender to notions of nationhood and the role of the modern state. Some background in history strongly recommended. M

HIST 1770. American Cultural History: 1789-1865. This class investigates the relationship of ritual, language, and power in the United States between the Revolution and the Civil War. The course approaches cultural history as a methodology and explores how insights from anthropology and linguistic theory have allowed scholars to make new arguments about the past. One half of the semester addresses American nation-building as a matter of cultural production (rather than statecraft) and considers how public space, print culture, and consumerism set the boundaries of national identity and membership in the body politic. The second half of the course focuses on American slavery and draws on Southern legal documents to consider how enslaved men and women contested the commodification, medicalization, criminalization, and sexualization of their bodies. Students will conduct primary source research to address how conceptions of enslaved bodies organized the larger structures of racial and gendered power in Antebellum America. M

Spr HIST1770 S01 24756 TTh 1:00-2:20(10) (S. Rockman)

HIST 1780. Modernizing America. This course, covering the history of the United States during the years 1877-1914, focuses on the period commonly referred to as the Gilded Age and Progressive Era. It was the time of the second industrial revolution and the rise of big business. We will trace those developments, and society’s attempts to deal with the accompanying seismic shifts in economic and political power, social norms, and cultural realities. Historians sometimes frame this period as the beginning of modernity; when the world that we are familiar with began to take shape. M

Fall HIST1780 S01 16417 MWF 8:00-8:50(01) (T. Jundt)

HIST 1781. Ideas in the U.S. Since 1865. This course treats aspects of both the intellectual and cultural history of the United States since the Civil War. Efforts will be made not only to comprehend the ideas of major thinkers, but also trends in the general culture that entail changes and continuities in values, attitudes, and behaviors. It will explore how historical changes have inspired ideas, and how those ideas have helped to shape history. Major themes include Darwinism, Victorianism, pragmatism, progressivism, pluralism, modernity, corporate capitalism, environmentalism, the Beats, and the Sixties. M

Spr HIST1781 S01 25833 TTh 2:30-3:50(11) (T. Jundt)

HIST 1790. North American Environmental History. Analyzes the relationship between ecological and social change in North America from pre-Columbian times to the 20th century. Topics include Indian uses of the environment; the reshaping of ecosystems under European colonization; the transfer of plants, animals, and diseases from Africa and Europe to the Americas; urbanization; and the rise of the environmental movement. Recommended prerequisites: HIST 0510 and OS20. E

Fall HIST1790 S01 15303 TTh 2:30-3:50(11) (S. Roberts)

HIST 1800. History of Religion in America, 1600-1865. This course considers the major people, events, and issues in the history of religion in North America, from pre-Columbian Native cosmologies to the tumultuous events of the Civil War. Attention will be given to “religion as lived” by ordinary people, as well as to the ways that “religion” shaped (or not) larger cultural issues such as immigration, public policy, social reform, warfare, democracy, slavery, and women’s rights. Advanced undergraduate and graduate students interested in religion and American history will find this course useful. Prior exposure to American history is helpful but not required; there are no formal prerequisites. E

Spr HIST1800 S01 24755 TTh 10:30-11:50(09) (L. Fisher)

HIST 1801. Religion, Politics, and Culture in America, 1865 - Present. Religion has played an undeniable role in the contemporary American cultural landscape. This course lends some perspective on the present by investigating the various and, at times, surprising role religion has played in history in the shaping of American culture from 1865 to the present. M

Fall HIST1801 S01 15289 MWF 2:00-2:50(07) (L. Fisher)

HIST 1820. American Urban History to 1870. Both a survey covering urbanization in America from colonial times to the present, and a specialized focus exploring American history from an urban frame of reference. Examines the prem odern, "walking" city from 1600-1870. Includes such topics as cities in the Revolution and Civil War, the development of urban services, westward expansion, and social structure. E

Fall HIST1820 S01 16307 MWF 9:00-9:50(02) (H. Chudacoff)

HIST 1845. Capitalism, 1500 to the Present. This course will study capitalism as a historically-specific and contingent system of economic organization. By "denaturalizing" capitalism, we will seek to embed markets in a wide range of social relations, cultural practices, and institutional arrangements. The course begins with early modern Europe and the Atlantic Slave Trade, before moving into Enlightenment political economy and the Industrial Revolution. The nineteenth-century focus is on empire, law, and the rise of the corporation, before culminating in the twentieth-century of mass consumption, the IMF, deindustrialization, and the rise of the securities industry. This course presumes no economics background. E

Fall HIST1845 S01 15315 MWF 11:00-11:50(04) (S. Rockman)

HIST 1850. American Legal and Constitutional History. History of American law and constitutions from European settlement to the end of the 20th century. Not a comprehensive survey but a study of specific issues or episodes connecting law and history, including witchcraft trials, slavery, contests over Native American lands, delineations of race and gender, regulation of morals and the economy, and the construction of privacy. E

Spr HIST1850 S01 25381 MWF 11:00-11:50(04) (M. Vorenberg)

HIST 1890. Empires in America to 1890. This course surveys the development of American foreign relations from initial encounters between Native Americans and newly arrived Europeans to the extension of Euro-American power beyond the continental United States. By being attentive to a wider global context, we will attempt to understand the trajectory of "America" from a colonial hinterland to dominant world power. E

Fall HIST1890 S01 15322 MWF 12:00-12:50(12) (N. Shibusawa)

HIST 1900. American Empire Since 1890. This survey of twentieth-century US foreign relations will focus on the interplay between the rise of the United States as a superpower and American culture and society. Topics include: ideology and US foreign policy, imperialism and American political culture, US social movements and international affairs, and the relationship between US power abroad and domestic race, gender and class arrangements. M

Spr HIST1900 S01 24757 MWF 11:00-11:50(04) (N. Shibusawa)

HIST 1930A. History of American School Reform (EDUC 1200). Interested students must register for EDUC 1200 S01 (CRN 24851)

HIST 1930G. Black Freedom Struggle Since 1945 (AFRI 1090). Interested students must register for AFRI 1090 S01 (CRN 24683)

HIST 1930I. American Higher Education in Historical Context (EDUC 1730). Interested students must register for EDUC 1730 S01 (CRN 15481)

HIST 1930J. Word, Image and Power in Renaissance Italy (ITAL 1580). Interested students must register for ITAL 1580 S01 (CRN 14483)

HIST 1930L. The History of American Education (EDUC 1200). Interested students must register for EDUC 1020 S01 (CRN 15487)

HIST 1930Q. History of the State of Israel: 1948 to the Present (JUDS 1981Q). Interested students must register for JUDS 1981Q S01 (CRN 15688)

HIST 1930R. Roman History I: The Rise and Fall of an Imperial Republic (CLAS 1310). Interested students must register for CLAS 1310 S01 (CRN 15513)
HIST 1930S. Roman History II: The Roman Empire and Its Impact (CLAS 1320).
Interested students must register for CLAS 1320 S01 (CRN 24873).

Interested students must register for EDUC 1050 S01 (CRN 24860).

HIST 1960N. South Africa since 1990 (AFRI 1060T).
Interested students must register for AFRI 1060T S01 (CRN 15586).

Interested students must register for JUDS 1980Q S01 (CRN 14227).

HIST 1960R. Urban Schools in Historical Perspective (EDUC 1720).
Interested students must register for EDUC 1720 S01 (CRN 16214).

HIST 1965. Social Change in the 1960s.
The 1960s continue to resonate in today's culture as the decade left an indelible imprint on the present society. This course focuses on the tumultuous decade and incorporates the following topics: the Civil Rights Movement, race and ethnicity, the Women's Movement, the Peace movement, student movements, Vietnam War and foreign policy, sexuality, and cultural productions (music, film, art, photography). Lectures are rooted in historical narratives, but engage with interdisciplinary methodologies. In this way, as the semester unfolds we witness the complexity, the intertwining of movements and issues, and the evolution of cultural and political ideas and policy. M

Fall HIST1965 S01 15297 MWF 11:00-11:50(04) (F. Hamlin)

This seminar considers economic inequality in colonial British North America and the newly United States. Studying everyone from sailors, servants, and slaves in the seventeenth century to mill owners in the nineteenth century, this course will look at the changing material structures of economic inequality and the shifting arguments that legitimated or challenged that inequality. Readings will explore how historians have approached the subject of inequality in the American past, with specific attention on class and the mode of analysis. In class an objective category external to a particular moment in the past? Is class an identity or consciousness that people take upon themselves at a specific time and place? How is class related to other structures of inequality, such as patriarchy and race-based slavery? Specific topics include the "Atlantic Proletariat", the emergence of the eighteenth-century middle class, the contest over the Constitution in 1780s and 1790s, the labor movement of the 1820s and 1830s, and the ideology of Antebellum America's finest opponents of capitalism, Southern slaveholders. Students will write extended papers that place primary research in conversation with relevant historiography. Enrollment limited to: 20. Written permission required

Spr HIST1970F S01 24772 Th 4:00-6:20(15) (S. Rockman)

HIST 1970L. The Jewish Problem.
Jewish history took a dramatic turn at the end of the 18th century; having previously lived in a condition of relative isolation, many European Jewish communities began winning citizenship in modern nation-states. The inclusion of Jewish minorities raised questions about the nature of citizenship for Jews and non-Jews alike: Who made up the nation? Was religion a key component of citizenship? Could the outsiders of the past be considered the compatriots of the future? Collectively, these questions made up "the Jewish problem," which will be the subject of this course. We will examine both the origins of the "problem" and the range of assimilationist, anti-Semitic, nationalist and Zionist solutions that were articulated. Enrollment limited to: 20. M

Spr HIST1970L S01 24642 W 3:00-5:20(14) (M. Mandel)

HIST 1971B. Consumer Culture in the United States.
This seminar will examine the history of consumer culture in the United States, with readings spanning the colonial era through the present. We will focus on how the culture of the U.S. has encouraged and shaped the development of consumer culture, and how the growing power of that consumer culture has influenced American culture and life and (arguably) impacted other cultures. Enrollment limited to 20

Fall HIST1971B S01 16148 T 4:00-6:20(15) (T. Jundt)

HIST 1971T. Knowing and Believing: Galileo to Darwin.
This course will consider the 17th century career of Galileo and the 19th century career of Darwin to clarify the changing relation between science and religion in the European West. Enrollment limited to 20. E

Fall HIST1971T S01 15314 TTh 10:30-11:50(09) (J. Richards)

HIST 1971X. From Emancipation To Obama.
This course develops a deep reading knowledge of significant issues and themes that define African American experiences during the 20th century, experiences that begin with the years following Emancipation and culminates with the election of President Obama. Themes include citizenship, gender, labor, politics, and culture. The goal is to develop critical analysis and historiographical depth. Some background in twentieth century United States history is preferred but not required. Assignments include weekly reading responses, class participation and presentation, and two written papers. Enrollment limited to 20. DVPS M

Spr HIST1971X S01 24765 W 3:00-5:20(14) (F. Hamlin)

Cross-dressing knights, virgin saints, homophobic priests, and mystics who speak in the language of erotic desire are but some of the medieval people considered in this seminar. This course examines how conceptions of sin, sanctity, and sexuality in the High Middle Ages intersected with structures of power in this period. While the seminar primarily focuses on Christian culture, it also considers Muslim and Jewish experience. Enrollment limited to 20. P

Spr HIST1972H S01 24770 M 3:00-5:20(13) (A. Remensnyder)

HIST 1973J. Korea: North and South.
This course offers a systematic investigation of the political, economic, and social histories of Korea, North and South, from the inception of the two governments following liberation from Japanese occupation in 1945 to the present day. Enrollment limited to 20. Instructor permission required. M

Spr HIST1973J S01 24768 W 9:30-11:50(02) (J. McClain)

HIST 1973M. Outside the Mainstream.
When ratifying the UN Covenant on Civil Rights in 1979, its representative reported, "The right of any person to enjoy his own culture... is ensured under Japanese law. However, minorities... do not exist in Japan." Nothing could have been further from the truth. Japan is - and for a long time, has been - home to immigrants, indigenous populations forced to accept Japanese citizenship, outcast communities of Japanese ethnicity, and otherwise ordinary persons who live outside the mainstream as outlaws and prostitutes. This course examines how these minority communities came into existence and struggled to maintain distinctive lifestyles in what many view as an extraordinarily homogenous society. Enrollment limited to 20 students. M

Fall HIST1973M S01 15930 T 3:00-5:20(08) (J. McClain)

Modernity as a distinct kind of cultural experience was first articulated in the Paris of the 1850s. The seminar will explore the meaning of this concept by looking at the theories of Walter Benjamin, as well as historical examples of popular culture and entertainments from the mass circulation newspaper, the department store, the museum, the café concert and the early cinema. Enrollment limited to 20. M

Spr HIST1973P S01 24766 Th 4:00-6:20(15) (M. Gluck)

Looks at the origins and nature of the English Civil War and Republican experiment in government (1642-1660) through a close examination of primary source materials. Considers not only the constitutional conflict between the crown and parliament, but also the part played by those outside of-doors in the revolutionary upheaval, the rise of popular radicalism, and the impact of events in Scotland and Ireland. P

Spr HIST1973T S01 24767 M 3:00-5:20(13) (T. Harris)

Examines the revolutionary upheavals in England, Scotland and Ireland of the later 17th-century through a close examination of primary source materials. Topics covered include: high and low politics, the rise of the public sphere, the politics of sexual scandal, government spin, persecution and toleration, and the revolutions of 1688-91 and their aftermaths. Enrollment limited to 20. P

Fall HIST1975P S01 15300 M 3:00-5:20(13) (T. Harris)
This seminar explores Native American histories and cultures in North America, primarily through the multiple and overlapping points of contact and coexistence with Europeans from the sixteenth through the eighteenth centuries. Although we will be reading widely in the very interesting recent literature in the field, a major component of the class is to investigate in a practical way the problem of sources for understanding and writing about American Indian history. As a senior capstone seminar, the final project is a substantial research paper. Enrollment limited to 20. P
Spr HIST1975T S01 24763 W 3:00-5:20(14) (L. Fisher)

HIST 1976P. Writing the History of Brown.
This research seminar, which is limited to 20 upper-class students, asks when, how and why did Brown change from being a small, regional liberal arts college and become a "hot school" and a noted research university, and investigates the problems it faced along the way. It will involve the students in original research. Enrollment limited to 20. Instructor permission required. E
Fall HIST1976P S01 15305 M 3:00-5:20(13) (J. Lancaster)

HIST 1976Z. Charlemagne: Conquest, Empire, and the Making of the Middle Ages.
The age of Charlemagne sits at the nexus of antiquity and the middle ages. For two hundred years Charlemagne’s family, the Carolingians, welded together fragments of the splintered Roman imperial tradition and elements from the Germanic world to forge a new, medieval European civilization. This seminar examines that process by exposing students to the primary sources, archaeological evidence, and modern scholarly debates surrounding the Carolingian age. Topics include the Carolingians’ rise to power; Charlemagne’s imperial coronation; interactions with the Islamic and Byzantine worlds; the revival of classical learning; the Church; warfare; the economy; Vikings; and the collapse of the Carolingian Empire. Enrollment limited to 20. Not open to first year students. P
Fall HIST1976Z S01 15429 Th 4:00-6:20(15) (J. Conant)

HIST 1977E. The Ottoman Empire & Europe: Interactions and Representations in the Long Early Modern Era.
The rise to power of the Ottoman Turks and their conquests of Constantinople in 1453 and Cairo in 1517 reconfigured the dynamics of power as well as religious, commercial, and cultural relations in the Afro-European world. That reconfiguration was expressed in rituals, diplomatic reports, religious tracts, maps, paintings, chronicles, harem tales, and histories, as well as in battle narratives. In this course, going beyond the image of “The Terrible Turk” invoked in Reformation literature, we study the nature of the Ottoman system, evaluating the ways in which Europeans crafted a vision of the empire, its power, and "the Islamic threat." Enrollment limited to 20. P
Fall HIST1977E S01 15283 M 3:00-5:20(13) (P. Brummett)

HIST 1977G. The Travel Narrative and the "West’s" Encounter with the Middle East.
This course begins by examining the genre and historiography of travel narratives from the 15th-19th C. We then focus on the accounts of those who journeyed to the Middle East: European travelers, as well as their Persian, Ottoman, and Moroccan counterparts. Of particular interest are the nature of the cross-cultural encounter; the ways in which travel narratives visualize layers of history; what difference gender makes in the witnessing of the Middle East; and how the experience of travel reveals the mental maps of travelers, the perceived nature of sovereignty and frontiers, and the ethnographic options available to the traveler. Enrollment limited to 20
Spr HIST1977G S01 24762 T 4:00-6:20(15) (P. Brummett)

The earthquake and tsunami that struck Japan on 11 March 2011 left some 20,000 people dead or missing, devastated communities and infrastructure all along Japan’s northeastern coast, and triggered a series of catastrophic events at the Fukushima Dai-ichi nuclear power plant. This seminar studies this crisis within both a global history of disasters and encounter with natural and man-made hazards, and within Japan’s own history of such encounters. We will explore the emergence of modern, scientific explanations of how and why disasters happen, and analyze the role played by popular culture in shaping the meanings assigned to disasters past, present and future. Enrollment limited to 20 juniors and seniors. WRIT E
Fall HIST1977I S01 15323 W 3:00-5:20(14) (K. Smith)

HIST 1977M. Twentieth Century Iran.
This history of Iran in the 20th century is bracketed by two revolutions. The Constitutional Revolution of 1906 set in place the Middle East’s first parliamentary democracy; the second in 1979 ended 2500 years of monarchical reign. The 1953 Coup that ousted the democratically elected prime minister was the CIA’s first Cold War era covert operation and Britain intelligence’s last. The Iran-Iraq War of the 1980s was the 20th century’s longest war, leaving a million Iranian casualties. The course examines Iran’s intellectuals, writers, artists, and filmmakers, highlighting their debates on colonialism, democracy, modernity, and political Islam. Enrollment limited to 20
Spr HIST1977M S01 25093 Th 4:00-6:20(15) (S. Balaghi)

HIST 1977N. State, Religion and the Public Good in Modern China.
In late imperial China, religion formed an intrinsic part of public life, from the cosmological ritual of the state to the constitution of family and communities of various kinds. This arrangement was challenged in the twentieth century by the fall of the dynastic system and the introduction of new definitions of religion, modernity, sovereignty, and secularism. We will explore the ramifications of this change in greater China and its border areas during the past hundred years, looking at how people have sought to create a good public and the public good. Enrollment limited to 20. M
Spr HIST1977N S01 25807 M 3:00-5:20(13) (R. Nedostup)

This seminar will explore the knowledge-production and military-financial infrastructures that maintain empires, as well as the means through which people have either resisted or embraced empire. While some attention will be made to the 19th and early 20th century colonial context, the bulk of the course will focus on the Cold War liberal era to the neoliberal regime that continues today. Possible topics include: popular culture and ideology, the Cold War university, area studies, international anti-war networks, transnational labor activism, the anti-colonial radical tradition, and the Arab Spring/Occupy Movements. Weekly readings; evaluation based on participation and analytical essays. Enrollment limited to 20 juniors and seniors. M
Fall HIST1977Q S01 15443 W 3:00-5:20(14) (V. Zamindar)

With the present economic crisis depicted as a crisis of the middle class, this course revisits the middle classes in Europe, the Americas, and the colonial world in the nineteenth and twentieth centuries. It explores the local renderings of a global social category and analyzes a set of historiographical approaches to middle-class formation from Marxism to post-social history. Topics include the transnational constitution of the middle classes; the gender, ethnic and religious dimensions of middle-class identities; mid-century trends, and the role played by popular culture in shaping the meanings assigned to disasters past, present and future. Enrollment limited to 20
Fall HIST1977R S01 16439 M 3:00-5:20(13) (P. Papamichos Chronakis)

This course will investigate the role memorials play in society and examine the politics of memorialization in order to better understand the dynamic nature of creating meaning in the past and present from American monuments. We will broaden our conception of monuments beyond stone statues to include museums, national parks, music, art, film and the web. Movies and readings of local memorials will supplement our seminar experience. Case studies include the Vietnam Veterans Memorial, the Oklahoma City National Memorial, the United States Holocaust Memorial, and memorials to 9/11, women’s rights and slavery (including the commissioned Brown University memorial), among others. Enrollment limited to 20
Fall HIST1977S S01 16440 M 3:00-5:20(13) (N. Eaton)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).

This course will trace how American attitudes towards nature have shifted over the centuries: from the colonial period, when the wilderness was seen as something to be feared and subdued, to the romantic view of nature that emerged in the nineteenth century, to the growing concerns of the modern environmental movement. Readings will include many of the seminal works of American natural history writing, from Thomas Jefferson to Rachel Carson, in order to highlight how these changing views towards nature have influenced American political and social history. Enrollment limited to 20. E
Spr HIST1977T S01 25803 M 3:00-5:20(13) (S. Roberts)

HIST 1977U. Running in High Heels: Women and Politics in American History

This course examines women’s participation in American politics from a historical perspective. Since women began organizing for the vote, women’s political engagement has highlighted cultural tensions related to motherhood, family life, sexuality, work, and the meaning of citizenship. The goal of the course is to better understand women’s participation in American politics, and to think critically about the complicated role of gender in American society. Specific course topics include suffrage, labor reform, the changing role of the First Lady, feminist politics, sexuality, race, and anti-feminist feminist campaigns. Enrollment limited to 20.
Spr HIST1977U S01 25590 M 3:00-5:20(13) (N. Eaton)

HIST 1977V. Science and Technology in Modern Chinese History

In this reading seminar, we will explore how different regimes that ruled China in the nineteenth and twentieth centuries, from imperial to socialist, mobilized science in their governance of a society in rapid transition. At the same time, we will examine the scientists, doctors, and engineers involved in the process of producing scientific knowledge, and the impact that their ideas then had on ordinary Chinese men and women. In so doing, we seek not only to deepen our understanding of China’s recent past, but also to rethink, more broadly, the relationship of science, technology, and society in modern states. Enrollment limited to 20. M
Fall HIST1977V S01 16580 T 4:00-6:20(15) (V. Seow)

HIST 1977W. Europe During World War II and the Holocaust

World War II marked a dramatic period of crisis and transition in twentieth-century Europe. The correlation of regional and global conflicts reshaped the political, social, economic and ethnic map of the continent. The material and moral losses provoked by the war impacted individual and collective lives for decades to come. This course discusses how Nazi Germany and its allies ruled occupied Europe, and analyzes the Holocaust as a modern, state-promoted, massacre. Movies and memoirs provide insightful perspectives on divided, even, conflicting memories of World War II, and their significance for the postwar reconstruction of European states and society. Enrollment limited to 20. M
Fall HIST1977W S01 16458 Th 4:00-6:20(15) (L. Santarelli)

HIST 1977X. Nations and Nationalism in Modern Europe

We will explore how nationalism has become the prevailing organizing principle of states and societies in modern Europe and discuss the rising of nationalism in Europe from the French Revolution to the present time. Students will engage with theoretical debates focusing on political sovereignty, citizenship, and national identity. Course topics will include the impact of colonialism, migration, industrialization, and European integration processes on national identities, comparing and contrasting case studies focusing on France, Germany, and Britain, as well as on the transition from multicultural empires to nation states in Central, Eastern and Southeastern Europe. Enrollment limited to 20.
Spr HIST1977X S01 26048 T 4:00-6:20(15) (L. Santarelli)

HIST 1977Y. Communism and Dissent in East-Central Europe, 1945-1989

Soviet-supported regimes assumed power throughout East-Central Europe in the wake of World War II. This seminar examines how writers, filmmakers, and other intellectuals (primarily in Poland, Czechoslovakia, and Hungary) grappled with the experience of communism between 1945 and 1989. When and how did they begin to oppose their political regimes, and what strategies did they use to defy state power and aesthetic orthodoxy? Readings for the course include novels, plays, and essays (in English translation) by Czeslaw Milosz, Milan Kundera, Eugene Ionesco, Adam Michnik, Vaclav Havel, and George Konrad. Enrollment limited to 20.
Spr HIST1977Y S01 25804 T 4:00-6:20(15) (E. Meloy)

HIST 1977Z. Globalization: An Idea Through History

It is impossible to not run into global problems or challenges. What does it mean for an issue to be global, or to think globally? What is globalization, how did it develop? How global were past societies. How global are we? This course provides a history of globalization and an introduction to a selection of globalizing moments in history as well as the modes of thinking that have contributed to contemporary global consciousness. Reaching far beyond the globalization debate of recent decades, it seeks to uncover historical greats, who were often thinking locally, but whose impact has been felt globally. Enrollment limited to 20.
Spr HIST1977Z S01 25889 M 3:00-5:20(13) (L. Tahthinen)

HIST 1978A. Drifting Cities. Multiethnic Societies from Empire to Nation-State

What happens to a multiethnic city when it passes from a dying empire to a nascent nation-state? This course focuses on Vienna and the Mediterranean ports of Trieste and Salonic from the late 19th century to the end of the Second World War and examines their transformation from cradles of Habsburg and Ottoman imperial modernity into laboratories of Austrian, Italian and Greek nationalism. Topics include: interethnic relations; the impact of WW1 and interwar nationalism; assimilation; anti-semitism and state policies; urban transformations; the Holocaust and its memory; and nostalgic imaginings of these cities in current public discourse. Enrollment limited to 20.
Spr HIST1978A S01 25861 M 3:00-5:20(13) (P. Papamichos)

HIST 1978B. Energy and the History of the U.S. and the World

Energy is central to modern life, yet it is seldom the focus of historical study. This course examines the history of the United States through the lens of its use of major energy resources, including wood, coal, whale oil, horse, water, petroleum, natural gas, nuclear, and alternative/sustainable. We will consider the significant impact of energy on the nation’s political, diplomatic, military, social, cultural, scientific, business, and economic histories, as well as the corresponding impact that the U.S. has had on energy resources and the environment. Enrollment limited to 20.
Spr HIST1978B S01 25855 T 4:00-6:20(15) (T. Judnit)

HIST 1978C. Health and Healing in Colonial and Post Colonial Africa

Reading-intensive seminar that examines health, healing, and the (post-) colonial "mission" in Africa in the nineteenth and twentieth centuries. We will study the effects of Western biomedical and scientific interventions through the prisms of imperial control, public health crusades, urbanization, reproduction, and four specific maladies: sleeping sickness (trypanosomiasis), leprosy, mental illness, and AIDS. The examination of these topics and maladies provides a window into the nature of colonial rule and the policies of race and cultural difference. Western Europe's "rational" medical theories, treatments, and preventive regimes were often shaped by preconceived notions of the colonial environment and racialized bodies. Enrollment limited to 20.
Spr HIST1978C S01 25866 M 3:00-5:20(13) (R. Parks)

HIST 1990. Undergraduate Reading Courses

Guided reading on selected topics. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIST 1992. History Honors Workshop for Prospective Thesis Writers

HIST 1992 and HIST 1993 students meet together as the History Honors Workshop, offered in two separate sections per week. Prospective honors students are encouraged to enroll in HIST 1992 during semesters 5 or 6. HIST 1992 offers a consideration of historical methodology and techniques of writing and research with the goal of preparing to write a senior thesis in history, allowing students to refine research skills, define a project, prepare a thesis prospectus, required for admission to honors. Students who complete honors may count HIST 1992 as a concentration requirement. Limited to junior who qualify for the honors program. WRIT
Fall HIST1992 S01 15329 W 3:00-5:20(14) (R. Cope)
Spr HIST1992 S01 25275 W 3:00-5:20(14) (R. Cope)
Spr HIST1992 S02 25276 Th 4:00-6:20(15) (R. Cope)
HIST 1993 students meet together as the History Honors Workshop, offered in two separate sections per week. All students admitted to the History Honors Program must enroll in HIST 1993 for two semesters of thesis research and writing. They may enroll in the course during semesters 6 and 7, or 7 and 8. Course work entails researching, organizing, writing a history honors thesis. Presentation of work and critique of peers' work required. Limited to seniors and juniors who have been admitted to History Honors Program. HIST 1993 is a mandatory S/NC course. See History Concentration Honors Requirements

This is the second half of a year-long course, upon completion the grade will revert to HIST 1993. Prerequisite: HIST 1993

Fall
HIST1994 S01 15332 W 3:00-5:20(14) (R. Cope)
Spr
HIST1994 S01 25279 Arranged (R. Cope)

HIST 2450. Exchange Scholar Program.

HIST 2890. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

HIST 2910. Reading and Research.
Section numbers vary by instructor. Please see check Banner for the correct section number and CRN to use when registering for this course

HIST 2920. Colloquium.
Required of all first-year graduate students; includes participation in Thursday Lecture Series. E
Fall
HIST2920 S01 15296 T 5:30-7:50(18) (J. Green)

HIST 2940. Graduate Workshop: The Practice of History.
Required of all incoming Ph.D. students. E
Fall
HIST2940 S01 15321 M 5:00-7:20(18) (R. Self)

HIST 2950. Professionalization Seminar.
Required of all second year Ph.D. students; includes participation in Thursday Lecture Series. E
Spr
HIST2950 S01 25264 T 1:00-3:20(10) (T. Nummedal)

HIST 2960. Prospects Development Seminar.
This required course open only to second-year students in the History Ph.D. program focuses on the development of a dissertation prospectus. The seminar will include considering the process of choosing a dissertation topic, selecting a dissertation committee, identifying viable dissertation projects, articulating a project in the form of a prospectus, and developing research grant proposals based on the prospectus. E
Spr
HIST2960 S01 25265 M 5:30-7:50(18) (R. Self)

HIST 2970A. New Perspectives on Medieval History.
Over the past several decades, the field of medieval history has been reshaped radically. New approaches have changed the ways that medievalists think about old subjects. Our understanding of medieval society itself has expanded as previously marginal or unexplored subjects have become central to medievalists’ concern. This seminar explores how the ways in which medieval historians practice their craft have altered in response to these developments. Readings in classic older works are juxtaposed with newer ones on their way to becoming classics themselves.
Fall
HIST2970A S01 15312 T 1:00-3:20(10) (A. Remensnyder)

HIST 2970B. Race, Ethnicity and Identity in the Atlantic World.
Explores the question of identity in the Atlantic world (especially the Spanish and English Atlantic) from the sixteenth to the nineteenth century. We will focus on three types of identity: 1) ethnicity; 2) race; and 3) nationality. How are such identities created and maintained? Are they "natural" or "artificial"? How do they change over time, and why? Throughout the seminar, we will consider both internal and external boundaries, how social actors - particularly subalterns - see themselves and how they are imagined by outsiders. Finally, we will examine how identity is expressed in a wide variety of media - codices, paintings, maps, oral histories, diaries, etc. - and how scholars make use of such sources.
Spr
HIST2970B S01 24774 M 3:00-5:20(13) (R. Cope)

HIST 2970Z. Core Readings in Nineteenth Century Europe.
Provides an introduction to the central issues of nineteenth-century European history. It has two purposes: first, to help you refine your abilities to think historiographically; second, to assist you in preparing for your comprehensive exams. To that end, we will read both standard interpretations and newer scholarship.
Fall
HIST2970Z S01 15292 Arranged (M. Gluck)

This state-of-the-field course will introduce students to nineteenth-century U.S. history, with specific attention to how recent transnational, imperial, institutional, and cultural approaches have reframed older debates over the "Age of Jackson," "Manifest Destiny," and the "Market Revolution." This seminar offers core readings for students preparing a comprehensive exam field, while providing others with content knowledge to teach this period of American history.
Fall
HIST2971J S01 15317 F 1:00-3:30(06) (S. Rockman)

HIST 2971P. Diasporas and Transnationalism.
This reading seminar is designed to familiarize students with the most cited and current theories on diaspora and transnationalism, to examine a few exemplary case studies from around the world, and to allow students to develop and discuss their individual interests and reading lists around these broad themes and concepts, towards a prelim field or dissertation prospectus.
Spr
HIST2971P S01 25266 W 12:40-3:00(05) (E. Hu-Dehart)

HIST 2971Q. The Sinosphere: Society and Culture in the Long Twentieth Century.
An exploration of recent directions in the social and cultural history of the modern Chinese world since the late 1800s. Topics include but are not confined to the concept of the "sinosphere"; internal migration and diaspora: the construction of knowledge, the constitution of various kinds of publics; trauma and conflict; gender; religion; and interdisciplinary history. Attention will be paid to matters of sourcing as well as analytic frameworks.
Fall
HIST2971Q S01 16369 W 3:00-5:20(14) (R. Nedostup)

HIST 2980B. Legal History.
An introduction for graduate students to the significance and methods of legal history, broadly defined. Students will engage with works in legal history from a variety of time periods and geographical areas, and they will be guided to sources related to their specific research interests. A major research essay will be required that draws from the models of legal history given and is based on original research into legal sources. E
Spr
HIST2980B S01 25380 Arranged (M. Vorenberg)

This graduate readings seminar is a wide-ranging survey of the diversity of religious groups, practices, and movements in the early modern Atlantic world, c. 1500 – 1800. Starting briefly with the Protestant Reformation, this seminar samples recent and enduring scholarship on religion in the British, Spanish, Dutch, and French empires, including African and Native American religious movements.
Fall
HIST2980Y S01 15422 Th 4:00-6:20(15) (L. Fisher)

HIST 2980Z. Major Themes in Hellenistic History.
In this course, we will examine select topics in Hellenistic history. Emphasis will be on the historiography of our primary source, Polybius, and on the most significant social and political problems of the period. Knowledge of ancient Greek is not required but strongly recommended.
Spr
HIST2980Z S01 24831 M 3:00-5:20(13) (K. Sacks)

HIST 2981A. Collecting and Measuring in a Global World.
This course will consider the impact of globalization on the western perceptions and understandings of the natural world in the 18th and 19th centuries. Enrollment limited to 20
Spr
HIST2981A S01 24745 W 3:00-5:20(14) (J. Richards)

HIST 2981B. American Political History.
This graduate readings seminar interrogates the question, "What is political history?" We will explore a range of approaches to the study of America's political past over the span of U.S. history, including recent and enduring historical scholarship on electoral politics and the state, political culture, grassroots politics and social movements, and the politics of gender and family, as well as social science scholarship on American political development. We will analyze how scholars have defined and redefined the field over time. Enrollment limited to 20 graduate students
Spr
HIST2981B S02 25714 Th 4:00-6:20(15) (T. Steffes)
HIAA 0010. Introduction to the History of Art and Architecture. Introduction to the history of western art and material culture from the beginning to the present. In addition to examining visual strategies of representation, the course explores the varied ways in which art reflects and shapes social, religious, and political concerns. Weekly one-hour conference required. Enrollment limited to 150. A
Spr HIAA0010 S01 24034 MW 10:00-10:50(05) (R. Molitor)

HIAA 0071. American Art and Modernism I: New York/London/Paris. This course will survey American art from the Civil War to World War II, with particular emphasis on the transatlantic dialogue of modernist visual culture. We will look at the way American born artists such as Tanner, Whistler and Cassatt pursued careers in Europe, while European artists such as Duchamp and Picabia created works of art in New York. We will look at the influence of European modes of abstraction on American art and design. And we will look at the way artists like Benton, O’Keeffe and Wood resisted European influences. Enrollment limited to 80
Fall HIAA0071 S01 16406 TTh 6:30-7:50(14) (J. Weinberg)

HIAA 0073. American Art and Modernism II: Making it New. This lecture course will survey American art from the rise of abstract expressionism in the 1950s to the Culture Wars of the 1990s. What role did scandal and publicity play in promoting the avant-garde? We will trace the way artists engaged with issues of politics, class, race, and gender. We will discuss the rise of new media and various photo-based practices. Key artists include Accconi, Bengis, De Kooning, Johns, Judd, Matta-Clark, Paik, Rauschenberg, Schneeman, Sherman, Koons, Piper, Pollock, and Warhol. (Note: American Art and Modernism I is not a requirement to take this course)
Spr HIAA0073 S01 25794 MWF 12:00-12:50(05) (J. Weinberg)

HIAA 0080. Introduction to the History of Art: Modern Photography. This class will survey the history of photography as an art form and means of visual communication in the modern era. The photograph will be considered from both esthetic and social perspectives; photography’s rise as a medium of personal expression will be examined, as will technology’s role in the creation of new regimes of spectatorship, and the mass dissemination of visual information. The class follows the rise of photography’s acceptance as an art form in the twentieth century, and culminates with its prominence within the phenomenon of postmodernism. No prerequisites, but prior coursework in modern history or art history is helpful. Enrollment limited to 80
Fall HIAA0080 S01 14413 MWF 11:00-11:50(04) (D. Nickel)

HIAA 0100. Introduction to Architectural Design Studio. Introduces students to basic tools and strategies in architectural design. A number of exercises will introduce students to questions about form, function and structure and teach them to learn from close observation of the built environment. The second half of the semester is devoted to the design of a small house by each student, which will be presented in a scale model and a full set of drawings at the end of the semester. A jury of invited architects and professors will conduct a discussion of each project. Enrollment limited to 12. Instructor permission required. LILE
Spr HIAA0100 S01 25692 TTh 6:30-7:50(12) (D. Neumann)

HIAA 0130F. Digital Culture and Art after 1989 (MCM 0901G). Interested students must register for MCM 0901G S01 (CRN 23873)

HIAA 0240. Cathedrals and Castles. The course aims to engage critically with the major architectural features of the medieval world: the cathedral and the castle. In addition to examining specific buildings as case studies, we will also interrogate the cultural context and the material culture associated with the construction, use and meanings of these important spaces. The course is arranged thematically rather than chronologically. A
Fall HIAA0420 S01 15237 MWF 10:00-10:50(03) (S. Bonde)

HIAA 0620. The Age of Rubens and Rembrandt: Visual Culture of the Netherlands in the Seventeenth Century. Surveys the amazing art in Holland and Flanders that revolutionized all media. We will see how paintings, sculpture, and architecture formed the historical environment of life in the 17th-century Netherlands. The work of such artists as Rubens, Rembrandt, Van Dyck, and Vermeer is presented as part of this history of art in a "golden age." Weekly one-hour conference required
Spr HIAA0620 S01 24030 MWF 1:00-1:50(06) (J. Muller)

HIAA 0750. Imagining Nation and Empire in Early Nineteenth-Century Europe. Course will examine visual culture in the context of socio-political transformations during the period. We'll analyze oil paintings, watercolors, prints, and phenomena such as the panorama and the Great Exhibition. While we will look briefly at artistic production in Spain and Germany, the geographical focus will be on the two major Western colonial powers, Great Britain and France. WRIT
Spr HIAA0750 S01 24038 MWF 2:00-2:50(07) (K. Kriz)

HIAA 0900. City and Cinema. An examination of the mutual influence between two of the major art forms of the 20th century: film and architecture. Concentrates on European and American film sets throughout the 20th century and explores their formal and iconographical sources in contemporary architectural discourse. Presentation and examination of sketches, paintings, still photographs, and film clips as well as writings by directors, set designers, critics, and architects (Eisenstein, Reimann, Kraucaur, Bunuel and many others)
Fall HIAA0900 S01 15244 TTh 1:00-2:20(10) (D. Neumann)

HIAA 0910. Contemporary Photography. This course surveys the rise of photography in the art world in the period after 1960. It examines both the development of photography as an independent medium and the appropriation of lens-based imagery by Pop Art, conceptual art, minimalism, and eventually Postmodernism
Spr HIAA0910 S01 23999 MWF 11:00-11:50(04) (D. Nickel)

HIAA 1150C. Velazquez. No description available. Enrollment limited to 25
Spr HIAA1150C S01 24568 W 3:00-5:20(14) (C. Zemer)

HIAA 1170D. Self-Portraiture and the Death of the Author in the Western Tradition. This seminar will focus on self-portraiture and modes of self-identity from the vantage point of feminism, queer theory and of post-modernist critiques of the author function. We will explore and critique the hold that the autobiographical impulse has on the modern imagination. We will look closely at self-portraits by artists ranging from Rembrandt to Sherman, and from Dürer to Wojnarowicz. Students will be asked to write about artists’ self-portraits and also construct their own written and visual autobiographies. We will read works as well as essays by Barthes, Foucault, and Krauss. Enrollment limited to 20
Spr HIAA1170D S01 25795 M 3:00-5:20(13) (J. Weinberg)

HIAA 1200A. Ancient Art in the RISD Collection. The RISD Museum’s ancient collection will be studied firsthand and in light of recent scholarship in Greek and Roman art and archaeology. Using the collection as a springboard, the course will explore original contexts for museum objects, issues of cultural property and museum ethics; conservation, restoration and display in museums; and notions of historical interpretation in museum display
Fall HIAA1200A S01 16382 F 3:00-5:20(15) (G. Borromeo)

HIAA 1200J. The Architecture of Utopia. This course will examine the different ways many cultures have conceived of paradise and/or Utopia, with a focus on the formation and expression of these “places” in spatial, architectural, and urban terms. We will investigate, for example, the Daoist immortal abodes of Han China, the enclosed gardens of Islamic Spain, ideal cities of the Renaissance, and the high-tech industrial wonderlands promised by twentieth century Modernists. In every case we will ask how architecture, real and/or fantastic, has been used to delineate and define these alternative worlds, and what they suggest about the individuals and societies that produced them. Enrollment limited to 20
Spr HIAA1200J S01 25934 T 4:00-6:20(15) (N. Walker)
HIAA 1300A. Word, Image and Power in Renaissance Italy (ITAL 1580).
Interested students must register for ITAL 1580 S01 (CRN 14483).

Interested students must register for HIST 1973P S01 (CRN 24766).

Interested students must register for ARCH 1835 S01 (CRN 16138).

HIAA 1300T. Garibaldi Panorama: the Invention of a Hero (from pre-cinema to digital) (ITAL 1340).
Interested students must register for ITAL 1340 S01 (CRN 14460).

HIAA 1410C. What is Islamic Art.
Is there such a thing as modern Islamic Art? This course draws on Brown’s Minassian collection of Islamic Art to help clarify these complex questions. Focusing on 3 forms from the collection -manuscripts, painting, and pottery- the course introduces students to key concepts in Islamic Art History. Enrollment limited to 20.

HIAA 1410D. War, Revolution, and Art.
Amidst the upheavals of revolution and war, art can render society’s fears and hopes legible. Artists can bear witness, propel social transformations, and imagine alternative futures. From posters to graffiti, film to photography, painting to graphic novels, art can be a vehicle for and a reflection of social change and political resistance. In turn, for scopic regimes, art is an effective tool of propaganda and mobilization; artists become targets or minions of ideologues and demagogues. Art encompasses and documents technologies of power during revolutions and wars. Our case studies in the class include Iran, Iraq, Afghanistan, the US, and Arab Spring. Enrollment limited to 20.

HIAA 1440E. The Body in Medieval Art.
The seminar considers the contradictory aspects of embodiment in the visual and material culture of the Middle Ages. We will examine the veneration of holy bodies through living holy individuals, and through body parts (relics) and the Eucharist enshrined in sumptuous containers. We will look at the iconography of death and resurrection, the representation of the body in painting and sculpture, attitudes toward sexuality, the performance of identity through clothing, and the sumptuary laws that governed clothing and behavior. We will investigate funerary rituals and burial, and the movement of living bodies in dance and in civic and religious processions. Enrollment limited to 25.

In this historicized investigation of viewing, we will be examining conditions of looking and believing from 1450-1800, asking how pictures organized information, what skills artists and viewers must have to effect the connection between viewer and idea, the role of imagery in the function of the imagination, and its trustworthiness in the production of truth. Our goal will be to identify how visual imagery in genres as diverse as maps, scientific illustration, and art has been used in different disciplines and endeavors that produce knowledge and explain ideas. Enrollment limited to 20 juniors and seniors with instructor’s permission.

HIAA 1600G. Art + Religion in Early Modern Europe.
In this seminar we will reconstruct the various ways in which visual communication participated in the practice and changes of religious life during the early modern period (1400-1800). Topics will range from the role played by prints in the spread of the Reformation to the design of new kinds of architecture for the implementation of the Catholic Counter Reformation. Close attention will be given to the significance of iconoclasm (destruction of images), ideals of visual communication for religious persuasion, the invention of new methods of meditation with visual focus, and the relationship between sacred words and images. Enrollment limited to 20.

HIAA 1600I. Collections and Visual Knowledge in Early Modern Europe: 1400-1800.
Examines the ways in which collections organized and developed new kinds of knowledge and practices. Collections were decisive in the formation of art, history, science, religion, politics, and international relations. We will discuss the rationales behind these different kinds of collections, the order in which things were placed, the visual organization and architecture that created the first museums, and the economics of collections. Attention to the collections of kings, artists, natural scientists, middle class citizens, humanists, and the devout will provide examples from a wide variety of perspectives. Enrollment limited to 20.

HIAA 1750C. Orienting Asia in Anglo-European Visual Culture.
This seminar will examine painting, prints and the decorative arts. We will examine objects produced in Asia for export to the west as well as images that are oriented towards Asia. Enrollment limited to 20.

HIAA 1850C. The City of Paris: Urbanism and Architecture from the Tenth through the Twentieth Centuries.
An introduction to the history of architecture and urbanism through the examination of Paris, capital city of France over the more than ten centuries of its development from Roman until modern times. Lectures and readings explore important monuments and urban spaces and the issues relevant to their development over time. These include the notion of a capital, the importance of construction in shaping perception of the city’s sense of identity (and identities, and major urban renewals and transformations. Paris will be briefly considered in relation to other famous capital cities such as Baroque Rome and nineteenth-century London. No previous experience in the history of architecture or urbanism is required. All readings are in English, although knowledge of French is always useful.

Reading and reports on an approved topic, supervised by a member of the staff. Project proposals must be submitted and approved no later than the first week of the semester. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 1930. The History and Methods of Art Historical Interpretation.
This seminar provides an overview of the methods and theories used by art historians and as an introduction to the history of the discipline. Through readings and discussions, we will examine how art history emerged as an intellectual pursuit and humanistic discipline in the modern era, and review its foundations in the Western philosophical tradition. The transformations wrought by the advent of critical theory and the incorporation of approaches from outside the discipline of art history will receive particular attention in the second half of the course. Open to juniors and seniors concentrating in History of Art and Architecture or Architectural Studies.

The subject of the thesis and program of study will be determined by the needs of the individual student. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2440B. The Body in Medieval Art and Architecture.
The seminar considers the contradictory aspects of embodiment in visual and material culture of the Middle Ages. We will examine the veneration of holy bodies through living holy individuals, and through body parts (relics) and the Eucharist enshrined in sumptuous containers. We will look at the iconography of death and resurrection, the representation of the body in painting and sculpture, attitudes toward sexuality, the performance of identity through clothing, and the sumptuary laws that governed clothing and behavior. We will investigate funerary rituals and burial, and the movement of living bodies in dance and in civic and religious processions. Enrollment limited to 25.
HIAA 2450. Exchange Scholar Program.

HIAA 2860B. Photographic Origins.
Through a series of directed readings and discussions, this seminar explores the origins and implications of photography's invention in the wake of Enlightenment philosophy, the industrial revolution, and Romanticism in Europe. No prerequisites, but background in the history of photography and/or 19th century Western art is encouraged. 
Spr HIAA2860B S01 24000 Th 4:00-6:20(15) (D. Nickel)

This course will examine the impact of the lesbian, gay, bisexual, and transgender civil rights movements on American visual culture. It will examine the works of such openly queer artists as Goldin, Hammond, Ligon, Mapplethorpe, and Warhol, but also the influences of drag, performativity, and sexual difference on such artists as Acconci, Benglis, Matta-Clark, and Sherman. A central focus will be the uses of the waterfront of New York by artists and gay subcultures. The LA Woman's Building will be discussed in terms of the ways it negotiated an uneasy alliances between feminist and lesbian practices.
Fall HIAA2870G S01 16589 Th 4:00-6:20(15) (J. Weinberg)

HIAA 2920. Methods of Research and Art Historical Interpretation.
Required of first-year and second year history of art and architecture A.M./Ph.D. students. Enrollment limited to 20. Instructor permission required.
Fall HIAA2920 S01 14651 F 3:00-5:20(15) (E. Lincoln)

HIAA 2940. Master's Qualifying Paper Preparation.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for their doctoral examination.

HIAA 2980. Individual Reading (Single Credit).
Single credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2981. Individual Reading (Double Credit).
Double credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2982. Individual Reading for the Doctoral Candidate.
Single Credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2983. Dissertation Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2990. Thesis Preparation.
For graduate students who are preparing a thesis and who have met the tuition requirement and are paying the Registration Fee to continue active enrollment.

HIAA 2991. Dissertation Preparation.
For graduate students who are preparing a dissertation and who have met the tuition requirement and are paying the registration fee to continue active enrollment.

Humanities

From antiquity to our day, therapeutic landscapes such as: mineral and thermal springs; shrines and churches built at sacred springs; volcanic ash mud baths; rocky landscapes emitting odorous gasses; and ponds filled with medicinal leeches, attract health pilgrims who search for healing. Storytelling transformed these into places of memory and pilgrimage. This seminar investigates places of bodily healing and miracle from a cultural studies perspective. The case studies will be drawn from the Mediterranean world and Western Asia (including Lourdes in France, Hierapolis in Southeastern Turkey and the Agiasma churches of Byzantine Istanbul). Enrollment limited to 20 juniors and seniors.
Fall HMAN1970D S01 15735 Th 3:00-5:20(15) (O. Harmansah)

HMAN 1970E. The Precarious University.
The intensification of student protest-occupy movements across the country particularly in California, and the proliferation the OWS movements across the world have rejuvenated social movements against cutbacks for the people and kickbacks for the wealthy. In this seminar, we will address the epistemic shifts and intellectual costs of these ongoing upheavals, particularly the fight against the U.S. university’s neoliberalization. We will imagine the kind of progressive university that is sustainable for the arts and humanities, and how the precarious work of artists and humanists are fundamental to 21st century global universities. Enrollment limited to 20 juniors and seniors.
Fall HMAN1970E S01 15740 W 3:00-5:20(14) (E. Lim)

Does pain and reflection on pain teach us something about ourselves, the world, our relation to it? This seminar approaches the question by examining the meaning of pain in Russian/Polish literatures in the theory of the 20th century. Our concern is with pain’s resistance to language and representation. The works analyzed offer a variety of responses to problem of pain as it appears in theology, experimental medicine, discussions of materialism, the philosophy of Schopenhauer, and above all, the giants of Russian literature, Dostoevsky and Tolstoy, in whom these debates are dramatized; they also form the ground on which Russian and Polish literature meet. Enrollment limited to 20 juniors and seniors.
Fall HMAN1970F S01 15736 M 3:30-5:50(13) (M. Oklot)

HMAN 1970G. International Perspectives on NGOs, Public Health, and Health Care Inequalities.
Non-governmental and other non-state organizations play an expanding role in the provision of health care across much of the globe. Growth and internationalization of the non-governmental sector, contraction of post-socialist and advanced industrial welfare states, and sub-contracting of state-funded services have all contributed. The seminar focuses on this expansion, critically assessing texts on NGOs and health and drawing comprehensively from sources across disciplinary and interdisciplinary boundaries. We will address issues of human welfare, political citizenship and identity, replacement and displacement of states, new forms of health care inequalities, and the self-concepts, missions, and roles of non-profit sector workers and NGOs. Enrollment limited to 20 juniors and seniors.
Spr HMAN1970G S01 25389 Th 4:00-6:20(15) (L. Cook)

What happens when a particular 'orthodoxy' becomes able to impose itself on others? This course examines the imposition of post-Constantinian catholicism on Jews, Samaritans, other Christians (Arians, Miaphysites, etc.) and the remaining ancient Mediterranean populace (4th-7th centuries) to consider a larger cultural phenomenon. We’ll draw on ancient authors and legal sources (in translation), archaeological data, and contemporary studies. Half the course entails communal exploration of the late antique Mediterranean. Student research presentations, including studies of comparable situations from other cultural and historical contexts, comprise the second half. Useful prior coursework includes: RELS 400, RELS 410, CLAS 600, CLAS 660, CLAS 1320. Enrollment limited to 20 juniors and seniors.
Spr HMAN1970I S01 25390 W 3:00-5:20(14) (K. Kraemer)

Why do we take pleasure in small-scale objects? What is their history and what purposes do they serve? How do the technology and the aesthetics of the small contribute to human cognition? To find answers to these and other questions, the seminar explores the cultural, literary and cognitive significance of miniatures. We will explore productive relationships between three areas of research: imaginative texts produced during the eighteenth century, the period's prolific but insufficiently studied production of small-scale versions of everyday objects, and recent developments in...
cognitive theory about the role of size-perception in the developing brain. Enrollment limited to 20 juniors and seniors
Spr HMAN1970J 25391 M 3:00-5:20(15) (M. Rabb)

In an arguably "post-secular" age, conflicts over the relationship between religion and law have again moved to the forefront of international debate. In our multicultural and globalized world, such conflicts often provoke contestation over the very possibility of universal definitions of either "religion" or "law," let alone their proper relationship. Our interdisciplinary inquiries on these questions will include concrete legal disputes in domestic and international courts; theoretical debates over the construction of "religion" in fields such as anthropology, religious studies, and political philosophy; and historiographical controversies about the relationship between "secularization" and sovereignty, particularly in light of the legacy of colonialism. Enrollment limited to 20 juniors and seniors
Spr HMAN1970K S01 25392 Th 4:00-6:20(15) (N. Berman)

Modern aesthetics emerged in the eighteenth century at the intersection of different disciplines, discourses, cultures, and European nations. Contributors to the new field came not only from academic philosophy but also from the arts, literature, history, theology, and other fields. Aesthetics was thus and remains primary among interdisciplinary disciplines. Readings for this course will be drawn from British, German, and French authors such as Shaftesbury, Du Bos, Addison, Hutcheson, Hume, Burke, Kames, Diderot, and Lessing. Kant, Schiller, and Herder. Enrollment limited to 25 juniors and seniors
Fall HMAN1970L S01 16129 Th 3:00-5:20(14) (B. Baiocchi)

Doomsday predictions/apocalyptic themes have become commonplace. Between "End of History" theses/Mayan Calendar predictions/posthumanist theories/the Rapture, and environmental/financial collapse, it seems we are living in what many believe to be End Times. This course will examine some principal clusters of ideas around finitude: posthumanism/singularity, environmental collapse, patriot survivalism, and post-politics. We will look at a number of cultural products: traditional fiction/non-fiction, blogs/podcasts/films. It will be less important to establish whether the Mayan calendar calculations are accurate than seeing the connections between those claims and the claims of survivalists/Rapture theorists. Taken together, what do all these claims say about this moment in history? Enrollment limited to 25
Fall HMAN1970M S01 16167 M 3:00-5:20(15) (G. Baiocchi)

HMAN 1970N. The Israeli-Palestinian Conflict in the Global Scene.
Dominant narratives of Israeli/Palestinian conflict obscure influential forces taking place outside the boundaries of Israel/Palestine, stories we believe are unique/historically peculiar. We will see how groups have been inspired by/have inspired both peoples’ struggles for survival/self-determination. We examine case studies revealing connectivity/reciprocity: postcolonialism/insurgency, environmental collapse, patriotic survivalism, and post-politics. We will look at a number of cultural products: traditional fiction/non-fiction, blogs/podcasts/films. It will be less important to establish whether the Mayan calendar calculations are accurate than seeing the connections between those claims and the claims of survivalists/Rapture theorists. Taken together, what do all these claims say about this moment in history? Enrollment limited to 25
Fall HMAN1970N S01 16588 T 4:00-6:20(15) (L. Quiquivic)

HMAN 2970B. And What About the Human?.
This course will think about the question posed by radical anti-colonial thought: and what about the Human? Through the writings of Foucault, Arendt, Heidegger, Fanon, Wynter and Césaire, as well as the novels of Lamming and Vera, we will examine the meaning of the "death of Man" in contemporary critical thought and theory, and the ways in which western anti-humanism thought claims to replace the figure of the human with discourse and language, while also contrasting the ways in which radical anti-colonial thought has constructed the figure of the human. Enrollment limited to 20
Spr HMAN2970B S01 25587 M 3:00-5:20(15) (B. Bogues)

International Relations

This seminar explores the internationalism of the past century in terms of its relationship to separatist nationalism, anti-colonialism, and religious radicalism. It takes as its point of departure the dramatic political, cultural, and intellectual transformations that followed in the wake of World War I. A guiding hypothesis of the seminar is that internationalism cannot be understood apart from its complex relationship to "identity" broadly conceived – identity of local/transnational groups as well as the identity of internationalists themselves. Readings will be drawn from law, cultural studies, politics, and postcolonial theory. Enrollment limited to 20 graduate students. Advanced juniors/seniors by permission only
Fall HMAN2970FS S02 15857 W 3:00-5:20(14) (N. Berman)

INTL 2970H. Realism, Idealism, and Modernity I: From Early Modernity through German Idealism.
Debates between realism and idealism are central to modernity. The opposition between them might seem straightforward, realists being the philosophy of the scientific worldview, idealism the philosophy of more traditional religion and morality. But sometimes idealism has been the philosophical basis for modern science and moral autonomy, and realism the basis for more traditional worldviews. The philosophical debate between realism and idealism is thus part of the larger struggle over science, religion, morality and politics in modern culture. This course will begin a two-semester study of this complex dialectic from the seventeenth to the twentieth centuries. Enrollment limited to 20
Spr HMAN2970H S01 25371 W 3:00-5:20(15) (P. Goyer)

INTL 2970I. Habits of Living: Affect and New Media.
How have we become habituated to and inhabitants of new media, and what are the effects of this voluntary and involuntary habituation? Focusing on the relationship between new media and affects— environmentally-provoked, non-conscious responses, central to the formation of individual/group perception—this course investigates new media networks as structures created through constant human and non-human actions. Enrollment limited to 20. This course is for Graduates only. Upperclass undergraduates require instructor’s permission. Students must register for the primary meeting and the film screening
Spr HMAN2970I S01 25903 M 3:00-5:20(15) (W. Chun)
The main objective of the seminar is to enable students to understand the different and competing conceptions of human rights present in the contemporary humanitarian agenda. In particular, topics such as the problem of enforcement and the role human rights in foreign policy, genocide, torture, women’s rights, humanitarian intervention, and the international criminal court. At the end of the course students will be better equipped to assess critically the potential and shortcomings of the international human rights system.

Spr INTL1750 S01 26070 TTh 1:00-2:20(10) (A. Becker)

INTL 1800N. Global Media: History, Theory, Production.
Explores the historical and contemporary roles of media in international affairs as a source of information and as an important medium of war and diplomacy. Three tracks: historical, focusing on the dual development of colonial and media empires from early days of print media to the Internet; theoretical, using classical IR and critical theory to examine media as product and instrument of cultural, economic and political struggles; and practical, using biweekly ‘Global Media Labs’ in which guest media practitioners teamed with media theorists present master classes in print, photography, radio, cinema, television, and online convergences. Instructor permission required. Enrollment limited to 20. WRIT

Fall INTL1800N S01 15338 W 3:00-5:20(14) (J. Der Derian)

INTL 1800V. The United States in World Politics.
Examines major aspects of American foreign policy after the Cold War and 9/11 in terms of domestic and international challenges. Discussions of the United States as ‘empire’ and ‘republic,’ with independent research and a foreign policy game. Emphasis is on the connections between the processes of policy making and the substance of policies pursued. Prerequisite: POLS 0400 required; POLS 1560 highly recommended. Enrollment limited to 20 juniors and senior concentrators. WRIT

Spr INTL1800V S01 24650 T 4:00-6:20(15) (L. Miller)

INTL 1801S. All the News That’s Fit to Post: Grappling with Issues for Content Creators in the Global News World.
Journalists operate today in an increasingly global and increasingly digital media environment, confronting new challenges and also seizing new opportunities that simply did not exist a generation ago. The new news world lacks traditional mentoring and editorial frameworks. This seminar focuses on threshold dilemmas that journalists confront, often independently, in newsgathering, writing, and publishing decisions. Through class dialogue and opinion essay writing assignments, the seminar will stress interaction, debate and international sensibilities. It will include real life case studies from Newsweek, newsweek.com and MSNBC. Enrollment limited to 20 seniors. Instructor permission required. WRIT

Fall INTL1801S S01 16143 T 4:00-6:20(15) (S. Fuzesi)

INTL 1802A. The Laws of Violence: Lawful Killings in Law Enforcement, Punishment, War and the War on Terror.
This seminar introduces the basic elements of conventional theories of law and state, and explores the centrality that legalized violence plays in both the constitution of law and the state. The goal of the seminar is to identify and examine the constitutive relation between law and violence. Enrollment limited to 20 seniors. Instructor permission required. WRIT

Fall INTL1802A S01 16132 M 3:00-5:20(13) (A. Becker)

Since 1953, the United States and South Korea have maintained a formal security alliance, and the peninsula remains home to 28,500 U.S. troops. Developments in Korea have an important impact on the region and the world making knowledge of the Koreas and their challenges vital for understanding the dynamics of the region. This course will explore the history, politics, economics, and security of North and South Korea and their role in the larger security context of East Asia. Enrollment limited to 20 seniors concentrating in International Relations. WRIT

Spr INTL1802B S01 25772 Th 4:00-6:20(15) ‘To Be Arranged’

INTL 1910. Senior Honors Seminar.
Open only to Senior students accepted into the honors program in international relations. Instructor permission required. WRIT

Fall INTL1910 S01 15343 W 6:30-8:50PM(18) (C. Elliott)

Open only to Senior students accepted into the honors program in international relations. Instructor permission required. WRIT

Limited to juniors and seniors. Section numbers vary by instructor. Required: A completed proposal form and syllabus, sponsor’s and concentration advisor’s approval, and written permission from Dr. Elliott (following review of the proposal) prior to registering for any section of this course. Banner overrides will be given by the IR Program manager only, and no overrides will be issued after the Registrar’s course add deadline.

INTL XLIST. Courses of Interest to Students Concentrating in International Relations.
Fall 2012
Please see the IR website for track courses and a list of other courses which may be of interest to IR concentrators.

Spring 2013
Please see the IR website for track courses and a list of other courses which may be of interest to IR concentrators.

Italian Studies

ITAL 0100. Elementary Italian.
Elective for students without previous training in Italian. No credit for first semester alone. Fundamentals of Italian grammar and development of skills in speaking, comprehension, and writing. Overview of contemporary Italian society. Five meetings per week, audio and video work, two Italian films. Note: This is a year course

Fall ITAL0100 S01 14414 MWF 1:00-5:00(17) (C. Abbona-Sneider)
Fall ITAL0100 S01 14414 TTh 1:00-2:20(17) (C. Abbona-Sneider)
Fall ITAL0100 S02 14415 TTh 9:00-10:20(17) (C. Abbona-Sneider)
Fall ITAL0100 S02 14415 MWF 10:00-10:50(17) (C. Abbona-Sneider)
Fall ITAL0100 S03 14416 MWF 10:00-10:50(17) (C. Abbona-Sneider)
Fall ITAL0100 S03 14416 TTh 10:30-11:50(17) (C. Abbona-Sneider)
Fall ITAL0100 S04 14417 MWF 12:00-12:50(17) (C. Abbona-Sneider)
Fall ITAL0100 S04 14417 TTh 2:30-3:50(17) (C. Abbona-Sneider)

ITAL 0200. Elementary Italian.
See Elementary Italian (ITAL 0100) for course description

Spr ITAL0200 S01 23836 MWF 1:00-5:00(17) (C. Abbona-Sneider)
Spr ITAL0200 S01 23836 TTh 1:00-2:20(17) (C. Abbona-Sneider)
Spr ITAL0200 S02 23837 TTh 9:00-10:20(17) (C. Abbona-Sneider)
Spr ITAL0200 S02 23837 MWF 10:00-10:50(17) (C. Abbona-Sneider)
Spr ITAL0200 S03 23838 MWF 10:00-10:50(17) (C. Abbona-Sneider)
Spr ITAL0200 S03 23838 TTh 10:30-11:50(17) (C. Abbona-Sneider)
Spr ITAL0200 S04 23839 TTh 10:30-11:50(17) (C. Abbona-Sneider)
Spr ITAL0200 S04 23839 MWF 12:00-12:50(17) (C. Abbona-Sneider)

ITAL 0300. Intermediate Italian I.
Review of the fundamentals of grammar, with emphasis on speaking and writing. Reading of representative short stories. Weekly compositions, presentations, and a paper. Three Italian films. Prerequisite: ITAL 0100-0200, or ITAL 0110, or placement by examination. Requirement for enrollment in the Bologna Program

Fall ITAL0300 S01 14419 MW 12:00-12:50(17) (C. Abbona-Sneider)
Fall ITAL0300 S01 14419 TTh 12:00-12:50(17) (C. Abbona-Sneider)
Fall ITAL0300 S03 14421 TTh 12:00-12:50(17) (C. Abbona-Sneider)
Fall ITAL0300 S03 14421 MW 2:00-2:50(17) (C. Abbona-Sneider)

ITAL 0400. Intermediate Italian II.
Review of specific grammar problems. Reading of one novel and newspaper articles. Compositions and oral presentations. Three Italian films. Prerequisite: ITAL 0300, or placement by examination

Spr ITAL0400 S01 23865 MWF 12:00-12:50(17) (C. Abbona-Sneider)
Spr ITAL0400 S01 23865 TTh 12:00-12:50(17) (C. Abbona-Sneider)
Spr ITAL0400 S03 23867 TTh 12:00-12:50(17) (C. Abbona-Sneider)
Spr ITAL0400 S03 23867 MW 2:00-2:50(17) (C. Abbona-Sneider)

ITAL 0500. Advanced Italian I.
The purpose of this advanced course is to improve speaking and writing skills by offering extensive practice in a variety of styles and forms.
ITAL 1340. Garibaldi Panorama: the Invention of a Hero (from pre-cinema to digital).
Giuseppe Garibaldi (1807-1882) is the ultimate 19th-century icon, a larger-than-life figure in the struggle for Italy's unification. In this course, we will focus on the critical role of media in shaping Garibaldi's image and career as the first tabloid Super-Hero of modern times: from the Garibaldi panorama, a 270-foot-long painted scroll, to 20th-century films. Students will use touch screens and interactive software to study the panorama and explore extensive archival materials from the Brown Library digital repository. Selected projects will be published online. Taught in English, discussion group in Italian 0999999
Spr ITAL1340 S01 14460 W 3:00-5-20(14) (M. Riva)

ITAL 1350A. Narratives for the Next Millennium: Italian Mysteries and the New Italian Epic.
New Italian Epic* (Wu Ming 1) describes a body of literary works published in Italy between 1993 and 2010. Blending fiction and non-fiction, many of these works investigate shady aspects of Italian history and society, such as organized crime and political corruption. The term has also been applied to cinematic works such as Matteo Garrone's film Gomorrah (based on Roberto Saviano's best-seller of the same name) and other multi-media hybrids emerging from the contemporary world of garage media. We will explore this textual/visual mini-corpus, within the context of the Berlusconi era. Taught in Italian
Spr ITAL1350A S01 23871 TTh 2:30-3-50(11) (M. Riva)

ITAL 1390. Modern Italy.
Examination of Italian society, culture, and politics over the past two centuries. Topics include: the struggle to unify Italy in the 19th Century; the creation of a national identity; the political role of the Catholic Church; changing family life and gender relations; conflict between North and South; Mussolini and the fascist venetianio; and the struggle for political stability over the past 50 years
Spr ITAL1390 S01 24400 TTh 9:00-10:20(08) (D. Kertzer)

ITAL 1400J. The Many Faces of Casanova
Philosopher or charlatan, magician or trickster, seducer or seduced, Casanova’s life contains multitudes. His name, unlike those of Sade or Sacher Masoch, does not designate a “perversion,” but a sort of exuberant hetero-sexual “normalcy.” He is the Venetian alter-ego (and possibly real-life inspiration) of Mozart’s Don Juan. In this course, we will dissect the myth of Casanova, from his own monumental autobiography to novels, films and plays which cast him as protagonist (films by Federico Fellini, Ettore Scola, Lasse Hallström, impersonations by Donald Sutherland, Marcello Mastroianni and Heath Ledger). Lectures in English; discussion group in Italian
Spr ITAL1400J S01 23869 TTh 10:30-11:50(09) (M. Riva)

ITAL 1431. Truth on Trial: Justice in Italy, 1400-1800 (HIST 1430).
Interested students must register for HIST 1430 S01 (CRN 24748)

Interested students must register for HIAA 1560J S02 (CRN 24545)

ITAL 1580. Word, Image and Power in Renaissance Italy.
This class is designed to introduce cultural and historical perspectives on Italy from the Middle Ages to Venice in the High Renaissance. Taught by professors of Italian Literature, Art History and History, we will move across Italy and the centuries focusing on monuments of literature, art, architecture, and history through different disciplinary lenses. WRIT
Fall ITAL1580 S01 14483 MWF 1:00-1:50(06) (C. Castiglione)

ITAL 1610. The Divina Commedia: Inferno and Purgatorio.
A close reading of the first two canticles of Dante’s poem in the light of contemporary European and American critical interpretations. In Italian. Enrollment limited to 40
Fall ITAL1610 S01 14038 Th 4:00-5:20(15) (R. Martinez)

ITAL 1620. The Divina Commedia: Dante’s Paradise: Justifying a Cosmos.
Close study of the third and final part of Divine Comedy, in which Dante unfolds how, in his view, the planetary and stellar spheres condition human life and fashion the Providential plan of history. There will be ancillary readings from Dante’s other works: Convivio, the Monarchia, and the Epistles. In Italian. Prerequisite: ITAL 0500 or 0600, or instructor permission. Enrollment limited to 40
Spr ITAL1620 S01 24256 Th 4:00-5:20(15) (R. Martinez)

ITAL 1920. Independent Study Project (Undergraduate).
Undergraduate Independent Study supervised by a member of the Italian Studies Faculty. Students may pursue independent research in order to prepare for their honors thesis or honors multimedia project, or they may enroll in the course in order to work individually with a faculty member on a specific area of Italian Studies not covered in the current course offerings. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

ITAL 1990. Senior Conference.
Special work or preparation of an honors thesis under the direction of a member of the staff. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

ITAL 2050. Microhistory.
Italian historians pioneered a methodology called "microhistory," emphasizing the importance of interpreting seemingly insignificant details in order to understand individuals for whom we typically have little information. We will examine some classic examples of this genre, alongside debates about the method. Students should pursue their own geographic and disciplinary interests in the final assignment by writing a microhistory
Spr ITAL2050 S01 23884 W 3:00-5:20(14) (C. Castiglione)
Judaic Studies

JUDS 0019. Death and Afterlife in the Biblical Tradition (RELS 0020). Interested students must register for RELS 0020 S01 (CRN 14528)

JUDS 0050E. From Amsterdam to Istanbul: Christians, Moslems, and Jews. This FYS combines text, picture, and music to study the history of Europe and the wider world in the early modern period through the eyes of a minority. It examines the new Jewish centers in the Atlantic world, the Ukrainian steppe, and the Middle East from 1500-1800, and how they shaped these environments. Cultural revolts, such as the spread of printing, the renaissance and new religious movements, will also be examined. Finally, we will see how the development of the modern state and the blurring of social, religious, and gender boundaries created new definitions of religious and cultural identity. Enrollment limited to 20 first year students. FYS WRIT Fall JUDS0050E S01 15685 Th 4:00-6:20(15) (A. Teller)

JUDS 0050G. Angels and Demons. An image and a demon have been central to popular culture throughout human history. They still play a role in the belief systems of many cultural groups to this day. Why have people persisted in believing in such supernatural beings even though their existence is not evident to the naked eye? We will investigate the belief in angelic and demonic figures in Jewish culture during a period to which both Judaism and Christianity trace their origins—the Second Temple period in Judea (approximately 520 BCE – 70 CE). Enrollment limited to 20 first year students. FYS Fall JUDS0050G S01 16334 W 3:00-5:20(14) (M. Brand)

JUDS 0050H. Israel’s Wars. Israel’s history has unfolded under the shadow of its prolonged conflict with the Palestinians and its Arab neighbors. This first year seminar will survey the military aspect of this conflict. The major aim of the course is to present an historical survey of the Israeli-Arab wars and Jewish-Palestinian encounters in the 20th century. This will provide some of the necessary background for understanding the present phase of the Arab-Israeli conflict in the Middle East, and help in comprehending the roots and causes of contemporary controversies between Israel and the Palestinians and/or its Arab neighboring states. Enrollment limited to 20 first year students. FYS Spr JUDS0050H S01 25986 TTh 1:00-2:20(10) (R. Rojanski)

JUDS 0110. Elementary Hebrew. An introduction to the skills of reading, writing, and conversing in contemporary Israeli Hebrew. Students also read Hebrew texts adapted for their level of Hebrew based on biblical, rabbinic, and modern Hebrew literature, which introduce them to the approaches of Hebrew writers in various periods to a variety of cultural issues. If unable to enroll because of closed registration, please contact the professor and a wait list will be created. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade at the end of the course work in JUDS 0120 covers the entire year and is recorded as the final grade for both semesters. Enrollment limited to 20 Fall JUDS0110 S01 14148 MWF 11:00-11:50(04) (R. Adler Ben Yehuda)
Fall JUDS0110 S01 14148 TTh 10:30-11:50(04) (R. Adler Ben Yehuda)

JUDS 0120. Elementary Hebrew. This is the second half of a year-long course, an introduction to the skills of reading, writing, and conversing in contemporary Israeli Hebrew. Students also read Hebrew texts adapted for their level of Hebrew based on biblical, rabbinic, and modern Hebrew literature, which introduce them to the approaches of Hebrew writers in various periods to a variety of cultural issues. Prerequisite: JUDS 0110. Students must have taken JUDS 0110 to receive credit for this course. If JUDS 0110 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing. Fall JUDS0120 S01 23663 MWF 11:00-11:50(04) (R. Adler Ben Yehuda)
Spr JUDS0120 S01 23663 TTh 10:30-11:50(04) (R. Adler Ben Yehuda)

JUDS 0130. Intermediate Hebrew. Develops the skills of reading, writing, and conversing in contemporary Israeli Hebrew at the intermediate level and of reading Hebrew texts of the biblical, rabbinic, and modern periods (biblical stories, rabbinic legends, modern Hebrew poems, stories, essays, newspaper articles). Discussions and compositions focus on the psychological, cultural, political, and social issues reflected in the Hebrew sources that we study. Prerequisite: JUDS 0120 or equivalent. Enrollment limited to 20. If unable to enroll because of closed registration, please contact the professor and a wait list will be created Fall JUDS0130 S01 14149 TTh 12:00-12:50(12) (R. Adler Ben Yehuda)
Fall JUDS0130 S01 14149 MWF 12:00-12:50(12) (R. Adler Ben Yehuda)

JUDS 0140. Intermediate Hebrew. Develops the skills of reading, writing, and conversing in contemporary Israeli Hebrew at the intermediate level and of reading Hebrew texts of the biblical, rabbinic, and modern periods (biblical stories, rabbinic legends, modern Hebrew poems, stories, essays, newspaper articles). Discussions and compositions focus on the psychological, cultural, political, and social issues reflected in the Hebrew sources that we study. Prerequisite: JUDS 0130 or equivalent. Enrollment limited to 20. If unable to enroll because of closed registration, please contact the professor and a wait list will be created Spr JUDS0140 S01 23664 TTh 12:00-12:50(05) (R. Adler Ben Yehuda)
Spr JUDS0140 S01 23664 MWF 12:00-12:50(05) (R. Adler Ben Yehuda)

JUDS 0150. Writing and Speaking Hebrew. Enables students to improve their skills in speaking and writing Hebrew on a variety of topics. Features advanced work on language structure and active language practice in the classroom. Class discussions of Israeli current events draw on Israeli stories, poems, television programs, and films and on the Israeli press. Students also compose essays and stories in Hebrew. Prerequisite: JUDS 0140 or equivalent Fall JUDS0150 S01 14185 TTh 9:00-10:20(08) (R. Adler Ben Yehuda)

JUDS 0640. History of the Holocaust. Explores questions raised by the Holocaust regarding how such barbarism erupted in our so-called civilized and enlightened age. Attempts to analyze the meaning of the Holocaust from three vantage points: that of European, and more particularly, German history; that of Jewish history; and that of those states and religious institutions which shared responsibility.
Enrollment limited to 50. If unable to enroll because of closed registration please contact the professor and a wait list will be created.

JUDS 0980V. Money, Power, Sex and Love: The Modern Jewish Family in Europe and America
What roles did the family play in modern Jewish society and how did Jewish women participate in them? These questions are at the heart of this seminar. Through discussions of primary sources (in translation) and modern research, we will use the tools of gender analysis to examine the history of the Jewish family from the mid-seventeenth century until today. Topics discussed include: Jewish law and the family, women and the politics of the family economy, sex and the erotic, women’s spirituality, the bourgeois Jewish family in imperial Germany, Jewish family life before the Holocaust, and intermarriage in the contemporary USA. WRIT
Spr JUDS0980V S01 23667 T 4:00-6:20(15) (M. Mandel)

JUDS 0980X. Introduction to Yiddish Culture and Language
Yiddish was the language spoken by most Jews in Eastern Europe and the countries to which they emigrated (including the U.S., England, South Africa, South American countries, and Israel) from the nineteenth century until after the Holocaust. It was the basis for a transnational Jewish culture and literature, and it played a central role in modern Jewish political life. We will explore the history of Yiddish culture and the development of the Yiddish press, literature, and cinema. The connection between Yiddish and modern Jewish politics will also be discussed. Students in the course will also have the opportunity to develop a basic knowledge of the Yiddish language.
Spr JUDS0980X S01 23671 T 4:00-6:20(15) (R. Rojanski)

JUDS 0990Q. "Coming Out" Jewish, Gay or Black: Mistaken Identity in Literature from USA and Brazil (POBS 0820).
Interested students must register for POBS 0820 S01 (CRN 15256)
JUDS 1440. Ancient Synagogues, Churches, and Mosques in Palestine.
Reviews the discoveries and related scholarship of ancient synagogues, churches, and mosques in ancient Palestine. Focusses on their architectural and decorative as well as their spiritual and religious characteristics, and examines how those institutions influenced each other throughout their history of development. WRIT
Spr JUDS1440 S01 23672 M 6:00-8:20PM(18) (K. Galor)

JUDS 1450. The Archaeology of Qumran and the Dead Sea Scrolls.
Qumran is one of the most prominent archaeological sites in the world. Its fame derives from its proximity to a series of caves in which some 800 ancient scrolls were found. Scholars have debated the relevance of this site to the histories of Judaism and Christianity. This seminar will examine the debates regarding the characte of Qumran through the material finds from old and new excavations conducted at the site itself and in the Dead Sea region. The lectures and readings are intended to stimulate a discussion about how to use texts and material culture for reconstructing the past. Enrollment limited to 20. LILE
Fall JUDS1450 S01 14228 M 6:00-8:20PM(18) (K. Galor)

JUDS 1530. Prophets and Priests in Exile: Biblical Literature of the 6th Century BCE.
The exile of Judah’s elite to Babylon elicited profound and conflicting literary responses. We will undertake a literary and historical analysis of a number of the most important works produced in response to the crisis of exile, including Jeremiah, Ezekiel, Second Isaiah, Lamentations, Psalm 137, the Priestly Writing, and the work of the exilic deuteronomists. Enrollment limited to 20.
Spr JUDS1530 S01 23669 M 3:00-5:20(13) (S. Olyan)

Section numbers vary by instructor. Please see Banner for the correct course reference number (CRN) to use when registering for this course.

JUDS 1980Q. Jews and Muslims.
This course considers interactions between Muslims and Jews in various historical settings from the early Islamic world, to Medieval Spain, to contemporary Europe and the Middle East. The goal is to move beyond simplistic histories of interfaith utopia, Islamic persecution, and Zionist domination to consider the complexities of ethno-religious interaction in a variety of social, cultural, economic and political contexts.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARAB 0100</td>
<td>First-Year Arabic</td>
<td>Builds basic listening, speaking, reading, and writing skills, introducing the Arabic language in its cultural environment. Six contact hours per week, with an emphasis on grammar and communication, plus written, audio, and video assignments outside of class.</td>
</tr>
<tr>
<td>ARAB 0200</td>
<td>First-Year Arabic</td>
<td>Builds listening, speaking, reading, and writing skills, at the low intermediate level of Arabic proficiency. Six contact hours per week, with an emphasis on grammar and communication, plus written, audio, and video assignments outside of class.</td>
</tr>
<tr>
<td>ARAB 0300</td>
<td>Second-Year Arabic</td>
<td>Develops listening, speaking, reading and writing skills at the intermediate level of language proficiency through extensive use of various texts and multimedia. Promotes a better understanding of the Arabic cultural traditions.</td>
</tr>
<tr>
<td>ARAB 0400</td>
<td>Second-Year Arabic</td>
<td>Develops listening, speaking, reading and writing skills at the intermediate level of language proficiency through extensive use of various texts and multimedia. Promotes a better understanding of the Arabic cultural traditions.</td>
</tr>
<tr>
<td>ARAB 0500</td>
<td>Third-Year Arabic</td>
<td>Offers comprehensive training in listening, speaking, reading, and writing, with grammar review as needed. Broadens students' perspective of Arabic culture using selections from the classical and modern traditions of Arabic writing and various art forms. Five contact hours weekly.</td>
</tr>
<tr>
<td>ARAB 0600</td>
<td>Third-Year Arabic</td>
<td>Offers comprehensive training in listening, speaking, reading, and writing, with grammar review as needed. Broadens students' perspective of Arabic culture with selections from the classical and modern traditions of Arabic writing and various art forms. Five contact hours weekly.</td>
</tr>
<tr>
<td>ARAB 0700</td>
<td>Fourth-Year Arabic</td>
<td>Builds advanced Arabic competence, using communicative approaches to the learning of content, function, and accuracy. Guided reading, writing and research. Three contact hours weekly.</td>
</tr>
<tr>
<td>ARAB 0800</td>
<td>Fourth-Year Arabic</td>
<td>Builds advanced Arabic competence, using communicative approaches to the learning of content, function, and accuracy. Guided reading, writing and research. Three contact hours weekly.</td>
</tr>
<tr>
<td>ARAB 1990</td>
<td>Special Topics in Arabic Language,</td>
<td>Advanced level integrated skill course focusing on specific reading and writing topics derived from the traditions and arts of the Arabic language. Course prerequisites include advanced capacity in Arabic grammar and reading comprehension. Enrollment limited to 10</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Catalan

**CATL 0100. Introduction to Catalan.**

This course introduces students to Catalan culture and boosts their oral and written skills through a wide range of resources: Internet, television, radio, cinema, and music.

Fall CATL0100 S01 16443 MTWTh 12:00-12:50(12) (L. Darder Estevez)

**CATL 0200. Catalan Language and Culture.**

An intermediate course which introduces students to Catalan culture and allows them to review and extend their knowledge of all basic patterns (e.g., grammar, vocabulary, phonetics, sociocultural norms) of the language. Students will develop their oral and written skills by describing, narrating, and presenting arguments. They will work with texts and audio-visual material that will provide them with a deeper understanding of Catalan literature, culture, and contemporary society. Classes will be conducted in Catalan. Therefore a basic knowledge of Catalan literature is a prerequisite or students may request the instructor’s permission to take the course.

Fall CATL0200 S01 25582 MTWTh 12:00-12:50(05) (L. Darder Estevez)

**CATL 0300. Introduction to Catalan Culture.**

The course will begin with an introduction to Catalan grammar. After students have a basic command of the language, they will be encouraged to read a wide range of texts written in Catalan related to many different topics. The texts have been selected not only for their linguistic value, but also because of the cultural aspects they introduce. The course will include activities designed to teach students about Catalonian, its culture and its traditions. For example, students will have the opportunity to listen to songs, watch films, news reports, etc. All texts will be provided by the professor and handed out in class. Students are welcome to bring to class any Catalan text of their interest. Classes will be conducted in Catalan as much as possible. Therefore, some knowledge of another Latin language is required.

Spr CATL0300 S01 25583 TTh 2:30-3:50(11) (L. Darder Estevez)

### English for Internationals

**EINT 2100. Academic Discourse for Internationals.**

This course develops the English skills of first-year international graduate students who are preparing to be teaching assistants. Students improve their listening comprehension and fluency in conversational interactions typical of academic settings. Areas of spoken English that are addressed include pronunciation, stress patterns, intonation, vocabulary, and structure. Instructor permission required.

Spr EINT2100 S01 23830 MTWThF11:00-11:50(04) (B. Gourlay)

**EINT 2200. Academic Interactions.**

This course develops the English language skills of first-year international graduate students who are preparing to be teaching assistants. Students improve their fluency and expression of complex ideas in a variety of linguistic situations typical of classroom interactions. Students also increase their control of vocabulary, pronunciation and listening comprehension when communicating with American undergraduates. Instructor permission required.

Fall EINT2200 S01 14260 MTWThF12:00-12:50(12) (B. Gourlay)

Spr EINT2200 S01 23831 MTWThF12:00-12:50(05) (B. Gourlay)

**EINT 2300. Negotiating an American Classroom.**

In this course, international graduate students increase their abilities to communicate accurately and fluently in English with American undergraduates. International students develop their ability to interact, in culturally appropriate ways, in a variety of teaching situations common to an institution of higher education, where they are responsible for expressing and explaining complex information and ideas in English. Instructor permission required.

Fall EINT2300 S01 14261 MTWThF9:00-9:50(02) (B. Gourlay)

Fall EINT2300 S01 14261 F 9:00-9:50(02) (B. Gourlay)

Spr EINT2300 S01 23832 MTWThF9:00-9:50(02) (B. Gourlay)

**EINT 2400. Speaking Professionally for Internationals.**

This course develops the English communication skills of international graduate students with an emphasis on intelligibility of speech and clarity of expression in a variety of teaching and professional situations (e.g. presenting material, responding to questions, directing discussions). Students develop increased facility of English in extended discourse when they are the authority in a teaching or other professional context. Instructor permission required.

Fall EINT2400 S01 14262 MW 9:00-9:50(02) (B. Gourlay)

Fall EINT2400 S02 14263 TTh 9:00-9:50(08) (B. Gourlay)

Spr EINT2400 S01 23833 MW 9:00-9:50(02) (B. Gourlay)

Spr EINT2400 S02 23834 TTh 9:00-9:50(08) (B. Gourlay)

**EINT 2500. Advanced Articulation Tutorial.**

This course is an advanced pronunciation tutorial for international graduate students who have achieved a near-native speaker level of fluency in English, but who require greater precision of English articulations, pronunciation, fluency and/or expression. Instructor permission required.

Fall EINT2500 S01 14264 MTWTh 12:00-12:50(12) (B. Gourlay)

Spr EINT2500 S01 23835 MTWTh 12:00-12:50(05) (B. Gourlay)

### Hindi-Urdu

**HNDI 0100. Beginning Hindi or Urdu.**

Introduces conversation, reading, and writing of modern standard Hindi and the Devanagari script. Those who already know Devanagari but have rusty conversation skills may join the class second semester; obtain instructor’s permission during the first semester. Those who prefer to learn Urdu and the Persian script should contact the instructor.

Fall HNDI0100 S01 14254 TTh 12:00-12:50(12) (A. Koul)

Fall HNDI0100 S01 14254 MWF 12:00-12:50(12) (A. Koul)

**HNDI 0200. Beginning Hindi or Urdu.**

Introduces conversation, reading, and writing of modern standard Hindi and the Devanagari script. Those who already know Devanagari but have rusty conversation skills may join the class second semester; obtain instructor’s permission during the first semester. Those who prefer to learn Urdu and the Persian script should contact the instructor. Prerequisite: HNDI 0100.

Spr HNDI0200 S01 23781 TTh 12:00-12:50(05) (A. Koul)

Spr HNDI0200 S01 23781 MWF 12:00-12:50(05) (A. Koul)

**HNDI 0300. Intermediate Hindi-Urdu.**

A continuation of HNDI 0100-0200, which is a prerequisite. Introduces the variation of the Arabic script used for Urdu. Prepares students to communicate in written and spoken language. Activities are conducted in Hindi/Urdu. Meets four hours weekly.

Fall HNDI0300 S01 14255 Th 4:00-4:50(06) (A. Koul)

Fall HNDI0300 S01 14255 MWF 1:00-1:50(06) (A. Koul)

**HNDI 0400. Intermediate Hindi-Urdu.**

A continuation of HNDI 0100-0200. Introduces the variation of the Persian script used for Urdu. Prepares students to communicate in written and spoken language. Activities are conducted in Hindi/Urdu. Meets four hours weekly. Prerequisite: HNDI 0300

Spr HNDI0400 S01 23782 Th 4:00-4:50(06) (A. Koul)

Spr HNDI0400 S01 23782 MWF 1:00-1:50(06) (A. Koul)

**HNDI 1080. Advanced Hindi-Urdu.**

Each student follows an independent reading list determined in consultation with the instructor. The readings may include folk tales, journalistic prose, 20th-century literature, classical Urdu poetry of the 17th to 19th centuries, or subjects in nonfiction. The class meets together three hours weekly for discussion. Each student also spends one hour weekly with the instructor. Prerequisite: HNDI 0400

Fall HNDI1080 S01 14256 Arranged (A. Koul)

Spr HNDI1080 S01 23783 Arranged (A. Koul)

### Persian

**PRSN 0100. Basic Persian.**

Fast-paced course for beginners. Course stresses acquisition of Persian alphabet and basic grammatical patterns, beginning levels of speaking, listening, reading, and writing. Strong emphasis on the links between language and culture.
Fall PRSN0100 S01 14257 TTh 1:00-2:20(06) (L. Anvar)
Fall PRSN0100 S01 14257 MW 1:00-1:50(06) (L. Anvar)
PRSN 0200. Basic Persian.
Fast-paced course for beginners. Course stresses acquisition of Persian alphabet and basic grammatical patterns, beginning levels of speaking, listening, reading, and writing. Strong emphasis on the links between language and culture.
This is the second half of a year-long course. Students must have taken PRSN 0100 to receive credit for this course. If PRSN 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing.

PRSN 0300. Intermediate Persian Language and Culture.
Expands students' proficiency in modern Persian language and culture; develops listening, speaking, reading and writing skills at the intermediate level through various texts and multimedia. Prerequisite: PRSN 0200
Fall PRSN0300 S01 14284 TTh 11:00-12:50(09) (L. Anvar)
Expands students' proficiency in modern Persian language and culture; develops listening, speaking, reading and writing skills at the intermediate level through various texts and multimedia. Prerequisite: PRSN 0300
Spr PRSN0400 S01 23786 TTh 11:00-12:50(09) (L. Anvar)
PRSN 0500. Advanced Persian Language and Culture I.
For students who have completed PRSN 0400 or have acquired language skills above the intermediate level through contact with Persian in other ways. The main goal of this course is to improve speaking, listening, reading and writing skills and promote exposure to the culture. It will enable students to expand their knowledge of the language by studying samples of modern and classical Persian literature in order to advance toward mastery of contemporary literature. The course will motivate students to communicate both in written and spoken Persian by utilizing the adequate grammatical order and correct vocabulary. Prerequisite: PRSN 0400
Fall PRSN0500 S01 14285 MW 2:00-3:50(07) (L. Anvar)
PRSN 0600. Advanced Persian Language and Culture II.
Designed for students who have completed PRSN 0500 or have acquired language skills above the advanced level through other means. The main goal of the course is to improve speaking, listening, reading and writing skills and promote exposure to the language and culture through in depth study of samples of Persian literature, history, journals, newspapers, radio and TV material to advance toward mastery of contemporary literature. Students will be motivated to communicate both in written and spoken Persian by utilizing adequate grammatical order and vocabulary. Activities will include poetry reading, informal gatherings and translation from and into Persian. Prerequisite: PRSN 0500
Spr PRSN0600 S01 23787 MW 2:00-3:50(07) (L. Anvar)
This course provides an overview of Iranian Cinema in general and explores in detail Iranian cinema after the Islamic revolution. It explores the politics, history, techniques and the art of cinema of the past several decades in Iran. Classes consist of screenings, discussions and lectures. Conducted in English, open to all students. Enrollment limited to 25. DVPS LILE
Fall PRSN1200 S01 14376 T 2:30-4:50(11) (L. Anvar)
Spr PRSN1200 S01 23788 'To Be Arranged'

Latin American and Caribbean Studies
Haitian-Creole
CROL 0100. Basic Haitian Creole.
Fast-paced course for beginners. Course stresses acquisition of skills in speaking and listening comprehension; writing included to a lesser degree. Strong emphasis on cultural as well as linguistic competency. Enrollment limited to 18. If the course is full, please sign the wait list in room 215, 111 Thayer Street
Fall CROL0100 S01 16225 MW 3:00-5:20(18) (P. Sylvain)
CROL 0200. Early Intermediate Creole.
Fast-paced course for beginners. Course stresses acquisition of skills in speaking and listening comprehension; writing included to a lesser degree. Strong emphasis on cultural as well as linguistic competency. Enrollment limited to 18. Prerequisite: Beyond basic level of reading, writing and comprehension or having successfully completed CROL 0100. If the course is full, please sign the wait list in room 215, 111 Thayer Street
Fall CROL0200 S01 16229 MW 6:30-8:20PM(18) (P. Sylvain)
CROL 0300. Advanced Intermediate Haitian Creole.
Fast-paced course for advanced/intermediate students of Haitian Creole. Designed for those who speak and understand Haitian Creole with some fluency but are seeking ways of perfecting their language skills, overcoming grammatical snags, increasing vocabulary, and mastering the idiomatic use of the language and proverbs. Reading and responding to authentic literature in Haitian Creole will be the focus of the course. Prerequisite: CROL 0200. Enrollment is limited to 18. If course is full, please sign the wait list in room 215, 111 Thayer Street
Fall CROL0300 S01 16230 MW 1:00-3:50(18) (P. Sylvain)
CROL 0400. Advanced Haitian Creole.
Designed for those who wish to develop more advanced level conversational, reading, and writing skills. Students work with a variety of readings (stories, poems, plays), films, interviews, and popular songs that promote in-class discussion and written analysis. Extensive practice in translating from English to Haitian and vice versa, with the aim of developing accuracy, speed, and appropriateness (lexical, grammatical, and cultural). Prerequisite: CROL 0300. Enrollment limited to 20
Fall CROL0400 S01 16231 F 3:00-5:20(18) (P. Sylvain)

Latin American Studies
LAST 1510K. Human Rights in Twenty-First Century Latin America.
Course offers a multidisciplinary introduction to the key advances in and challenges for the protection of human rights in contemporary Latin America. In contesting autocratic governments in the 1970's and 1980's, Latin America social movements and non-governmental organizations (NGOs) played a central role in the creation of the institutions and norms that constitute the international human rights system today. Enrollment limited to 20
Fall LAST1510K S01 16312 T 4:00-6:20(15) (C. Rodriguez Garavito)
LAST 1510L. The Politics of Latin America: Dilemmas and Opportunities.
A survey course on the politics of Latin America which aims at exploring the transformations experienced by the region in the last few decades. The course combines the discussion of themes (the emergent economic realities, the quality of democracy) with a more detailed look at countries of particular relevance because of their importance (Brazil, Mexico, Argentina) their unique trajectories (Chile, Cuba) and their relationship with the United States (Venezuela). Enrollment limited to 20
Spr LAST1510L S01 25872 Th 4:00-6:20(15) 'To Be Arranged'
For Latin American Studies concentrators writing senior projects or honors theses
For Latin American Studies concentrators writing senior projects or honors theses
LAST XLIST. Courses of Interest to Students Concentrating in Latin American Studies.
Fall 2012
The following courses, offered in other departments, may be of interest to students concentrating in Latin American Studies. Please see the course listing of the sponsoring department for times and locations.
Spring 2013
The following courses, listed in other departments, may be of interest to students concentrating in Latin American Studies and may fulfill certain concentration requirements. Please check the course listings of the sponsoring department for times and locations.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Literary Arts

LITR 0110A. Fiction I. A workshop for students who have little or no previous experience in writing fiction. Enrollment limited to 17 per section. This course is limited to undergraduates. S/NC. WRIT

Fall LITR0110A S01 14894 M 5:30-7:50(18) (T. Nguyen)
Fall LITR0110A S02 14895 T 4:00-6:20(15) (R. Ansorge)
Fall LITR0110A S03 14896 Th 5:00-7:20(15) (J. Madera)
Fall LITR0110A S04 14897 F 3:00-5:20(15) (N. Potter)
Spr LITR0110A S01 24199 M 5:30-7:50(18) 'To Be Arranged'
Spr LITR0110A S02 24200 T 4:00-6:20(15) 'To Be Arranged'
Spr LITR0110A S03 24201 Th 5:00-7:20(15) 'To Be Arranged'
Spr LITR0110A S04 24202 F 3:00-5:20(15) 'To Be Arranged'

LITR 0110B. Poetry I. A workshop for students who have little or no previous experience in writing poetry. Enrollment limited to 17 per section. This course is limited to undergraduates. S/NC. WRIT

Fall LITR0110B S01 14898 T 4:00-6:20(15) (E. Adamson)
Fall LITR0110B S02 14899 W 3:00-5:20(14) (A. Toiver)
Fall LITR0110B S03 14900 Th 5:00-7:20(15) (D. Li)
Fall LITR0110B S04 14901 F 3:00-5:20(15) (A. Colarusso)
Spr LITR0110B S01 24203 M 5:30-7:50(18) 'To Be Arranged'
Spr LITR0110B S02 24204 T 4:00-6:20(15) 'To Be Arranged'
Spr LITR0110B S03 24205 Th 5:00-7:20(15) 'To Be Arranged'
Spr LITR0110B S04 24206 F 3:00-5:20(15) 'To Be Arranged'

LITR 0110D. Electronic Writing I. Project-oriented workshop for writers, visual/sound artists, filmmakers and programmers who wish to explore digital media techniques. No experience working in this field (or with computer programming) required. You’ll learn through doing, reading, talking and collaborating on works in various traditions. Enrollment limited to 17. S/NC. WRIT

Fall LITR0110D S01 14902 T 12:00-2:20(10) (A. Karinowski)
Spr LITR0110D S01 24207 T 12:00-2:20(10) 'To Be Arranged'

LITR 0110E. Screenwriting I. A workshop for students who have little or no previous experience in writing screenplays. This course is limited to undergraduates. S/NC. WRIT

Enrollment limited to 17

Fall LITR0110E S01 14904 W 3:00-5:20(14) (L. Colella)
Fall LITR0110E S02 16274 W 6:00-8:20PM(18) (I. McDonald)
Spr LITR0110E S01 24209 T 12:00-2:20(10) 'To Be Arranged'

LITR 0210A. Fiction Writing II. Topics often include stylistic matters related to tone and point of view, and structural matters like controlling switches in time. See general course description above for course entry procedures for all intermediate workshops. Enrollment limited to 17. Instructor permission required. S/NC. WRIT

Fall LITR0210A S02 14906 T 4:00-6:20(15) (J. Howard)
Fall LITR0210A S03 16269 W 5:30-7:50(14) (B. Evenson)
Spr LITR0210A S01 24210 M 5:30-7:50(18) 'To Be Arranged'
Spr LITR0210A S02 24211 W 3:00-5:20(14) (J. Howard)

LITR 0210B. Poetry Writing II. Emphasis is placed on lyric and narrative poetry. Writing includes frequent exercises. See general course description above for course entry procedures for all intermediate workshops. Written permission required. S/NC. WRIT

Fall LITR0210B S01 14807 T 4:00-6:20(15) (J. Madsen)
Spr LITR0210B S01 24212 T 4:00-6:20(15) 'To Be Arranged'

LITR 0210D. Electronic Writing II. Project-oriented workshop for writers, visual/sound artists, filmmakers and programmers wishing to explore techniques for effective and innovative use of text in digital media. Topics include hypertext narrative, kinetic poetry, and recombinant and computer-generated texts. Collaboration encouraged. Work sample (writing, programming, website) due on first day of semester. Enrollment limited to 17. Instructor permission required. S/NC. WRIT

Fall LITR0210D S01 14908 T 4:00-6:20(15) (M. Cabele)
Spr LITR0210D S01 24213 T 4:00-6:20(15) 'To Be Arranged'

LITR 0210E. Screenwriting II. Emphasis is placed on filmic devices, such as dialogue, voice-over, montage and time. Writing includes frequent exercises. See general course description above for course entry procedures for all intermediate workshops. This course is limited to undergraduates. Enrollment limited to 17. Instructor permission required. S/NC

Spr LITR0210E S01 24215 Th 12:00-2:20(10) 'To Be Arranged'

LITR 0710. Writers on Writing Seminar. This course explores image and language in collaboration, seeking a better understanding of this complicated and influential genre. Assignments will be critical and creative, both individual and collaborative, and will involve daily reading and writing assignments. Enrollment limited to 20. WRIT

Spr LITR0710 S01 14914 TTh 2:30-3:50(11) (A. Gladman)
Spr LITR0710 S01 24228 TTh 2:30-3:50(11) (P. Nelson)

LITR 0999. Graphic Novels and Comic Masterworks. Focused on the influence of graphic novels and comic art, this course looks at examples of graphic novels and comic art from seminal texts like Art Spiegelman’s Maus through a range of mainstream and independent comics from Marjane Satrapi, Grant Morrison, Alan Moore, David B., Tove Jansson, Lynda Barry, Brian Chippendale, Frank Miller, and many others, including graphic memoir, reportage, and Indie and DIY zines. The course explores image and language in collaboration, seeking a better understanding of this complicated and influential genre. Assignments will be critical and creative, both individual and collaborative, and will involve daily reading and writing assignments. Enrollment limited to 20. WRIT

Spr LITR0999 S01 24234 TTh 1:00-2:20(10) (J. Howard)

LITR 1010A. Advanced Fiction. This course explores image and language in collaboration, seeking a better understanding of this complicated and influential genre. Assignments will be critical and creative, both individual and collaborative, and will involve daily reading and writing assignments. See general course description above for course entry procedures for all advanced workshops. Written permission required. S/NC. WRIT

Fall LITR1010A S01 14923 T 10:30-12:50(09) (M. Steinbach)
Fall LITR1010A S02 14937 W 3:00-5:20(14) (J. Howard)
Spr LITR1010A S01 24229 T 10:30-12:50(09) (M. Steinbach)
Spr LITR1010A S02 25526 W 3:00-5:20(14) (J. Wideman)

LITR 1010B. Advanced Poetry. Course work includes a body of exercises, close reading of poetry, workshop conversations and conferences. See general course description above for course entry procedures for all advanced workshops. Instructor permission required. S/NC. WRIT

Fall LITR1010B S01 14913 M 3:00-5:20(13) (F. Gander)
Spr LITR1010B S01 24254 M 3:00-5:20(13) (L. Swensen)

LITR 1010D. Advanced Electronic Writing. An advanced experimental workshop in writing for digital media. Students should have some experience working with computer-based authoring tools for generating content. Writing for digital media is taken to mean any writing for which electronic supports are vital: to its literary aesthetic, to its cultural viability as (potential) literary art. The primary aim of the course is to produce a work of writing in digital media, but associated readings and discussion will draw out the problems associated with this contemporary challenge to traditional practices. Prerequisite one of the following: LITR 0210D, 1010A, 1010B, 1010C, 1010E, 1010G (or related experience). Enrollment limited to 12. Instructor permission required. S/NC. WRIT

Fall LITR1010D S01 14910 M 3:00-5:20(13) (J. Cayley)

LITR 1010E. Advanced Screenwriting. The writing of short screenplays or a longer work in progress in regular installments, along with appropriate exercises and reading assignments. See general course description above for course entry procedures for all advanced workshops. Instructor permission required. S/NC. WRIT

Fall LITR1010E S01 14922 Th 12:00-2:20(10) (I. McDonald)

LITR 1010F. Advanced Translation. Translation draws from many fields including linguistics, comparative literature, literary studies, anthropology, cultural studies, cognitive science,
and creative writing. While we consider different theories and approaches to translation, students will embark on a semester-length translation project. Expect to read and energetically discuss readings, to give a presentation on your ongoing translation, and to write a critical essay and numerous translation exercises on your way toward completing a manuscript in translation (the length of which will be determined by the work itself and an agreement between professor and student). Enrollment limited to 12. Instructor permission required. S/NC. WRIT

LITR 1010G. Cave Writing.
An advanced experimental workshop for writing in immersive 3D - at the cutting edge of new media - introducing text, sound, spatial poetics, and narrative movement into Brown's "Cave" at its Center for Computation and Visualization. An easy-to-learn and easy-to-use application allows non-programmers to create projects on their laptops and then to run them in the Cave without the necessity for specialist support. Broadly interdisciplinary, the course encourages collaboration between students with different skills in different media, who work together to discover a literary aesthetic in artificially rendered space. Instructor permission required. Enrollment limited to 12. S/NC. WRIT

Fall LITR1010G S01 14912 T 12:00-2:20(10) (J. Cayley)
Spr LITR1010G S01 24216 M 3:00-5:20(13) (J. Cayley)

LITR 1110S. Fiction into Film.
A study of various directors' attempts to transfer masterpieces of fiction into film. Concerning both genres we will ask Gertrude Stein's question: What are masterpieces, and why are there so few of them? Includes fiction by Austen, Bierce, Carter, Cowley, Doyle, Faulkner, Forster, Fowles, Kesy, Joyce, McCullers, Morrison, Nabokov, O'Connor, Thompson, Walker, Spielberg, Woof, Yamamoto as directed by Burton, Forman, Feli, Gilliam, Huston, Jordan, Kurasa, Lee, Potter, and others. Class and weekly screenings. Enrollment limited to 12. S/NC. WRIT

Fall LITR1110S S01 14919 Th 10:30-12:50(09) (M. Steinbach)

LITR 1150G. Books by Hand.
As both a seminar and workshop, this course will explore small press publishing and bookmaking from historical, contemporary and hands-on perspectives. Students will be asked to design and carry out small creative projects throughout the semester as well as research particular concerns in the field. See general course description above for course entry procedures for all special topics workshop/seminars. Written permission required. S/NC

Spr LITR1150G S01 25064 M 3:00-5:20(13) (A. Gladman)

LITR 1150J. The Cinematic Essay.
A creative writing seminar in which we take the Essay Film as the primary inspiration for weekly writing exercises. Works by Marker, Godard, Ivens, Resnais, Varda, Akerman, Herzog, Morris, Su Friedrich, Sadie Benning and Trinh Mon-Ha to be included. Also writing by Cane, , , , , , , and others. See general course description above for course entry procedures for all special topics workshop/seminars. Written permission required. S/NC. Students MUST register for the lecture section and the screening

Spr LITR1150J S01 24258 Th 12:00-2:20(10) (C. Maso)

LITR 1150N. The Novella: An Adventure in Writing.
In this workshop/seminar, we will explore the ever elusive world of the novella - how to think of this work, what the rules are, where the boundaries lay. Alongside their reading of writers such as Marguerite Dumas and Michael Ondaatje, students will embark on their own novella-writing journeys. Written permission required. S/NC

Fall LITR1150N S01 16288 W 6:00-8:20PM(18) (A. Gladman)

LITR 1151A. Architectures of Poetic Space.
We will study intersections between three-dimensionally built spaces and the constructed space of the page, asking: How does the poem take on aspects of architecture? How do we make structures with sentences? Students will be asked to write their own architectures and to consider abstract drawing as a way to both collaborate with and think through peer-generated work. Line drawings of all skill levels welcome. Enrollment limited to 12. S/NC

Spr LITR1151A S01 24427 W 3:00-5:20(14) (A. Gladman)

LITR 1200. Writers on Writing.
Offers students an introduction to the study of literature (including works from more than one genre) with special attention given to a writer's way of reading. This course will include visits to the course by contemporary writers, who will read to the class and talk about their work. Enrollment is limited to 30 students

Fall LITR1200 S01 14824 TTh 2:30-3:50(11) (L. Swensen)
Spr LITR1200 S01 24218 TTh 2:30-3:50(11) (B. Evenson)

LITR 1230E. Form and Theory of Fiction.
Form and Theory of Fiction offers an exploration of narrative theories directed particularly at creative writers, in conjunction with a hands-on examination of contemporary fictional narrative practices. Theoretical readings include historical essays on fiction and work by Gaston Bachelard, Mieke Bal, and others. Enrollment limited to 20

Spr LITR1230E S01 24219 TTh 10:30-11:50(09) (B. Evenson)

LITR 1230I. The Documentary Vision in New Literature of the Americas.
A study of genre-defiant works, lyric treatments, atypical narratives, film poems, etc., including works by Anne Carson, Elena Poniatowska, W.S. Merwin, Maggie Nelson, Raoul Zurita and others. Enrollment limited to 20.

Spr LITR1230I S01 24231 M 3:00-5:20(13) (C. Wright)

LITR 1230J. Writing: Material Differences.
An exploration of practices that make a material difference to writing, that may change what writing is in specific cultural circumstance and locations. We will look for such differences through transcultural and translanguaging experiments with writing, beginning "West" and moving "East." We will engage with a selection of widely divergent writers and genres whose work emphasizes on practices - particularly a translated rendition of Chinese poetics (such as was taken up by Pound and became influential in English literature) - and on theories that we can use for our practice, from: Fenollosa, Foucault, Derrida, and others. Enrollment limited to 20

Spr LITR1230J S01 24217 W 3:00-5:20(14) (J. Cayley)

LITR 1230O. Suppression and Invention in Modern Persian Literature.
This course begins with symbolic elements from classical mystic Persian literature and journeys into pre- and post-revolution Persian short fiction and poetry. We shall analyze creative and translated works - particularly a translated rendition of Chinese poetics - and examine of contemporary fictional narrative practices. Theoretical readings include historical essays on fiction and work by Gaston Bachelard, Mieke Bal, and others. Enrollment limited to 20

Spr LITR1230O S01 24230 W 3:00-5:20(14) (S. Mondapiroun)

LITR 1230S. Creeley: Drive He Sd: Robert Creeley and Company.
This seminar will examine on one of the most potent, original voices of contemporary poetry in English, examining a selection of the poetry, fiction, essays, letters and collaborations of a principal shaper of the radical, vibrant, open field of new American writing. Enrollment limited to 20

Spr LITR1230S S01 24226 W 3:00-5:20(14) (S. Mondapiroun)

LITR 1230S. Creeley: Drive He Sd: Robert Creeley and Company.
This seminar will examine on one of the most potent, original voices of contemporary poetry in English, examining a selection of the poetry, fiction, essays, letters and collaborations of a principal shaper of the radical, vibrant, open field of new American writing. Enrollment limited to 20

Fall LITR1230S S01 14916 T 4:00-6:20(15) (S. Mondapiroun)
Spr LITR1230S S01 24224 T 4:00-6:20(15) (S. Mondapiroun)

LITR 1230P. The New Wave in Iranian Cinema.
We shall explore this movement that produced remarkable award-winning films in Iran. Applying author (auteur) theory, we will study new Iranian movies, analyzing "signs and meaning" in their cinematic language, also investigating effects of Iranian culture on this new artistic wave. Enrollment limited to 20.

Spr LITR1230P S01 24226 W 3:00-5:20(14) (S. Mondapiroun)

LITR 1230S. Creeley: Drive He Sd: Robert Creeley and Company.
This seminar will examine on one of the most potent, original voices of contemporary poetry in English, examining a selection of the poetry, fiction, essays, letters and collaborations of a principal shaper of the radical, vibrant, open field of new American writing. Enrollment limited to 20

Fall LITR1230S S01 15123 W 3:00-5:20(14) (F. Gander)

LITR 1230T. The Origins of the Detective Story.
This class will explore the development of the Detective genre, focusing on its roots in the 19th century and considering more broadly how genres develop and change. Readings include E.T.A. Hoffmann's "Mademoiselle de Scudery", Edgar Allan Poe's Auguste Dupin stories, Wilkie Collins, Arthur Conan Doyle, Martin Hewett, and selections from Detection by Gaslight and The Penguin Book of Gaslight Crime. We will also look at theoretical texts, including Franco Moretti's "Claues". This course fulfills Literary Arts' pre-20th century literature requirement. Enrollment limited to 20

Spr LITR1230T S01 25546 W 3:00-5:20(14) (B. Evenson)
LITR 1300. Independent Study in Reading, Research, and Writing About Literature
Provides advanced students with an opportunity to pursue tutorial instruction oriented toward a literary research topic

LITR 1310. Independent Study in Creative Writing
Offers tutorial instruction oriented toward some significant work in progress by the student. Typically taken by honors or capstone candidates in the antepenultimate or penultimate semester. See instructor to seek permission during the semester before undertaking the course of study. One advanced-level workshop is prerequisite. S/N/C

LITR 1410A. Fiction Honors
A workshop setting for the completion of theses by advanced writers of fiction. See general course description above for course entry procedures for all honors workshops. Instructor permission required. Enrollment limited to 12 senior Literary Arts concentrators. S/N/C

LITR 1510. Honors Independent Study in Creative Writing
Provides tutorial instruction for students completing their theses or capstone projects. Typically taken by honors or capstone candidates in their final semester. See instructor to seek permission during the semester before undertaking the course of study. S/N/C

LITR 2010A. Graduate Fiction
Advanced practice of the art: a writing seminar, limited to graduate students in Literary Arts. Emphasis is placed on developing a better understanding of the creative process, strategies and forms. Written permission required. S/N/C

LITR 2010B. Graduate Poetry
Advanced practice of the art: a writing seminar, limited to graduate students in Literary Arts. Emphasis is placed on developing a better understanding of the creative process, strategies and forms. Written permission required. S/N/C

LITR 2110G. Writing The Novel
For advanced fiction writers who wish to work in long form. The course will read a selection of novels and investigate the form; the primary emphasis will be placed on the work being undertaken by the members of the workshop itself. S/N/C

LITR 2230. Graduate Independent Study in Reading, Research, and Writing About Literature
Provides graduate students with an opportunity to pursue tutorial instruction oriented toward a literary research topic

LITR 2310. Graduate Independent Studies in Literary Writing
Offers tutorial instruction oriented toward some significant work in progress by the graduate student. S/N/C

LITR 2410. Graduate Thesis Independent Study in Literary Writing
Provides tutorial instruction for graduate students completing their graduate creative theses. Typically taken in the final semester. See instructor to seek permission during the semester before undertaking the course of study. S/N/C

LITR 2450. Exchange Scholar Program.

LITR 2600. Seminar in Teaching Creative Writing
A course focused on how to design and lead a creative writing workshop. Reading, writing and laboratory workshop sessions. Designed for first-year Literary Arts graduate students. S/N/C

Mathematics

MATH 0050. Analytic Geometry and Calculus
A one-semester survey of calculus for students who wish to learn the basics of calculus for application to social sciences or for cultural appreciation as part of a broader education. Topics include functions, graphs, exponentials and logarithms, and differentiation and integration; applications such as marginal analysis, growth and decay, optimization, and elementary differential equations. May not be taken for credit in addition to MATH 0090. S/N/C only

MATH 0060. Analytic Geometry and Calculus
A slower-paced introduction to calculus for students who require additional preparation. Presents the same calculus topics as MATH 0090, together with a review of the necessary precalculus topics. Students successfully completing this sequence are prepared for MATH 0100. Prerequisite: for MATH 0050 is written permission; for MATH 0060 is MATH 0050 or written permission. S/N/C only

MATH 0090. Introductory Calculus, Part I
An intensive course in calculus of one variable including limits, differentiation, maxima and minima, the chain rule, rational functions, exponential functions, and exponential functions. Introduction to integration with applications to areas and volumes of revolution. MATH 0090 and 0100 or the equivalent are recommended for all students intending to concentrate in the sciences or mathematics. Lectures plus one 80-minute section arranged. S/N/C only

MATH 0100. Introductory Calculus, Part II
A continuation of the material of MATH 0090 including further development of integration, inverse trigonometric and logarithmic functions, techniques of integrations, and applications. Other topics include infinite series, power series, Taylor's formula, introduction to differential equations, and numerical methods. MATH 0090 and 0100 or the equivalent are recommended for all students intending to concentrate in the sciences or mathematics. Lectures plus one 80-minute section arranged

MATH 0170. Advanced Placement Calculus
A one-semester survey of calculus for students who wish to learn the basics of calculus for application to social sciences or for cultural appreciation as part of a broader education. Topics include functions, graphs, exponentials and logarithms, and differentiation and integration; applications such as marginal analysis, growth and decay, optimization, and elementary differential equations. May not be taken for credit in addition to MATH 0090. S/N/C only

MATH 0170. Calculus with Applications to Social Science
A one-semester survey of calculus for students who wish to learn the basics of calculus for application to social sciences or for cultural appreciation as part of a broader education. Topics include functions, graphs, exponentials and logarithms, and differentiation and integration; applications such as marginal analysis, growth and decay, optimization, and elementary differential equations. May not be taken for credit in addition to MATH 0090. S/N/C only

MATH 0170. Analytic Geometry and Calculus
A slower-paced introduction to calculus for students who require additional preparation. Presents the same calculus topics as MATH 0090, together with a review of the necessary precalculus topics. Students successfully completing this sequence are prepared for MATH 0100. Prerequisite: for MATH 0050 is written permission; for MATH 0060 is MATH 0050 or written permission. S/N/C only

MATH 0180. Intermediate Calculus
Three-dimensional analytic geometry. Differential and integral calculus for functions of two or three variables: partial derivatives, multiple integrals,
MATH 010. Advanced Placement Calculus (Physics/Engineering).
Covers roughly the same material and has the same prerequisites as MATH 0170, but is intended for students with a special interest in physics or engineering. The main topics are: calculus of vectors and paths in two and three dimensions; differential equations of the first and second order; and infinite series, including power series and Fourier series. The extra hour is a weekly problem session.

Fall MATH0180 S01 14762 MWF 10:00-10:50(17) (X. Chen)
Fall MATH0180 S02 14763 MWF 1:00-1:50(17) (X. Chen)
Fall MATH0180 S03 14764 TTh 10:30-11:50(17) (E. Kiral)
Fall MATH0180 S04 16672 MW 2:00-2:50(17) (T. Fong)
Spr MATH0180 S01 24117 MW 10:00-10:50(16) (G. Daskalopoulos)
Spr MATH0180 S02 24118 MW 11:00-11:50(16) (G. Daskalopoulos)
Spr MATH0180 S03 24119 MW 12:00-12:50(16) 'To Be Arranged'

MATH 0200. Intermediate Calculus (Physics/Engineering).
Covers roughly the same material as MATH 0180, but is intended for students with a special interest in physics or engineering. The main topics are: geometry of three-dimensional space; partial derivatives; Lagrange multipliers; double, triple, and triple integrals; vector analysis; Stokes' theorem and the divergence theorem, with applications to electrostatics and fluid flow. The extra hour is a weekly problem session. Recommended prerequisite: MATH 0100, 0170, or 0190.

Fall MATH0200 S01 14767 MW 12:00-12:50(17) (S. Molcho)
Fall MATH0200 S02 14768 MW 2:00-2:50(17) (M. Wheeler)
Fall MATH0200 S03 14769 TTh 2:30-3:50(17) (A. Braverman)
Spr MATH0200 S01 24125 MW 1:00-1:50(17) (B. Cole)
Spr MATH0200 S02 24126 MW 2:00-2:50(17) (A. Vagharshakyan)
Spr MATH0200 S03 24127 MW 12:00-12:50(17) 'To Be Arranged'

MATH 0350. Honors Calculus.
A third-semester calculus course for students of greater aptitude and motivation. Topics include vector analysis, multiple integration, partial differentiation, line integrals, Green's theorem, Stokes' theorem, the divergence theorem, and additional material selected by the instructor. Prerequisite: Advanced placement or written permission.

Fall MATH0350 S01 14770 TTh 2:30-3:50(17) (T. Banchoff)

MATH 0420. Introduction to Number Theory.
An overview of one of the most beautiful areas of mathematics. Ideal for any student who wants a taste of mathematics outside of, or in addition to, the calculus sequence. Topics include: prime numbers, congruences, quadratic reciprocity, sums of squares, Diophantine equations, and, as time permits, such topics as cryptography and continued fractions. No prerequisites.

Spr MATH0420 S01 24275 TTh 1:00-2:20(10) (R. Kenyon)

MATH 0520. Linear Algebra.
Vector spaces, linear transformations, matrices, systems of linear equations, bases, projections, rotations, determinants, and inner products. Applications may include differential equations, difference equations, least squares approximations, and models in economics and in biological and physical sciences. MATH 0520 or 0540 is a prerequisite for all 1000-level courses in Mathematics except MATH 1260 or 1610. Recommended prerequisite: MATH 0180, 0200, or 0350. May not be taken in addition to MATH 0540.

Fall MATH0520 S01 14772 MWF 11:00-11:50(17) (B. Cole)
Fall MATH0520 S02 14773 TTh 1:00-2:20(17) (J. Leshin)
Fall MATH0520 S03 14774 TTh 2:30-3:50(17) (L. Lim)
Spr MATH0520 S01 24276 MWF 9:00-10:50(17) 'To Be Arranged'
Spr MATH0520 S02 24277 MWF 11:00-11:50(17) (D. Abramovich)
Spr MATH0520 S03 24278 TTh 9:00-10:20(17) (A. Landman)
Spr MATH0520 S04 24279 TTh 2:30-3:50(17) 'To Be Arranged'

MATH 0540. Honors Linear Algebra.
Linear algebra for students of greater aptitude and motivation, especially mathematics and science concentrators with a good mathematical preparation. Matrices, linear equations, determinants, and eigenvalues; vector spaces and linear transformations; inner products; Hermitian, orthogonal, and unitary matrices; and Jordan normal forms. Provides a more extensive treatment of the topics in MATH 0520. Recommended prerequisites: MATH 0180, 0200, or 0350.

Fall MATH0540 S01 14775 TTh 10:30-11:50(09) (M. Lee)
Fall MATH0540 S02 14775 TTh 10:30-11:50(09) (J. Silverman)
Spr MATH0540 S01 24280 MWF 11:00-11:50(17) (C. Kottke)
Spr MATH0540 S02 24281 MWF 1:00-1:50(17) (C. Kottke)

MATH 1010. Analysis: Functions of One Variable.
Completeness properties of the real number system, topology of the real line. Proof of basic theorems in calculus, infinite series. Topics selected from ordinary differential equations. Fourier series, Gamma functions, and the topology of Euclidean plane and 3-space. Prerequisite: MATH 0180, 0200, or 0350. MATH 0520 or 0540 may be taken concurrently. Most students are advised to take MATH 1010 before MATH 1130.

Spr MATH1010 S01 24282 MWF 1:00-1:50(06) (A. Vagharshakyan)

MATH 1040. Fundamental Problems of Geometry.
Topics are chosen from euclidean, projective, and affine geometry. Highly recommended for students who are considering teaching high school mathematics. Prerequisites: MATH 0520, 0540, or instructor permission.

Fall MATH1040 S01 24283 TTh 1:00-2:20(10) (M. Lee)

The study of curves and surfaces in 2- and 3-dimensional Euclidean space using the techniques of differential and integral calculus and linear algebra. Topics include curvature and torsion of curves, Frenet-Serret frames, global properties of closed curves, intrinsic and extrinsic properties of surfaces, Gaussian curvature and mean curvature, geodesics, minimal surfaces, and the Gauss-Bonnet theorem.

Fall MATH1060 S01 14777 TTh 10:30-11:50(11) (T. Banchoff)

MATH 1110. Ordinary Differential Equations.
Ordinary differential equations, including existence and uniqueness theorems and the theory of linear systems. Topics may also include stability theory, the study of singularities, and boundary value problems.

Fall MATH1110 S01 14779 MWF 1:00-1:50(06) (A. Vagharshakyan)

MATH 1120. Partial Differential Equations.
The wave equation, the heat equation, Laplace's equation, and other classical equations of mathematical physics and their generalizations. Solutions in series of eigenfunctions, maximum principles, the method of characteristics, Green's functions, and discussion of well-posedness. Prerequisites: MATH 0520 or MATH 0540, or instructor permission.

Spr MATH1120 S01 24284 TTh 1:00-2:20(10) (N. Koppes)

MATH 1130. Functions of Several Variables.
A course on calculus on manifolds. Included are differential forms, integration, and Stokes' formula on manifolds, with applications to geometrical and physical problems, the topology of Euclidean spaces, compactness, connectivity, convexity, differentiability, and Lebesgue integration. It is recommended that a student take a 1000-level course in analysis (MATH 1010 or MATH 1260) before attempting MATH 1130.

Fall MATH1130 S01 14780 TTh 9:00-10:20(06) (K. Oh)

MATH 1140. Functions Of Several Variables.
See Functions Of Several Variables (MATH 1130) for course description. Prerequisite: MATH 1130 or instructor permission.

Spr MATH1140 S01 24286 TTh 9:00-10:20(08) (K. Oh)

MATH 1260. Complex Analysis.
Examines one of the cornerstones of mathematics. Complex differentiability, Cauchy-Riemann differential equations, contour integration, residue calculus, harmonic functions, geometric properties of complex mappings. Prerequisite: MATH 0180, 0200, or 0350. This course does not require MATH 0520 or 0540.

Fall MATH1260 S01 14781 TTh 9:00-10:20(08) (R. Kenyon)

MATH 1270. Topics in Functional Analysis.
Infinite-dimensional vector spaces with applications to some or all of the following topics: Fourier series and integrals, distributions, differential equations, integral equations, calculus of variations. Prerequisite: At least one 1000-level course in Mathematics or Applied Mathematics, or permission of the instructor.

Fall MATH1270 S01 14782 TTh 1:00-2:20(10) (A. Landman)
MATH 1410. Combinatorial Topology.
Topology of Euclidean spaces, winding number and applications, knot theory, fundamental group and covering spaces. Euler characteristic, simplicial complexes, classification of two-dimensional manifolds, vector fields, the Poincaré-Hopf theorem, and introduction to three-dimensional topology. Prerequisites: MATH 0520 or MATH 0540, or instructor permission
Spr MATH1410 S01 24287 TTh 2:30-3:50(11) (T. Goodwillie)

MATH 1530. Abstract Algebra.
An introduction to the principles and concepts of modern abstract algebra. Topics include groups, rings, and fields; applications to number theory, the theory of equations, and geometry. MATH 1530 is required of all students concentrating in mathematics
Fall MATH1530 S01 14783 MWF 10:00-10:50(03) (J. Holmer)
Spr MATH1530 S01 24288 MWF 2:00-2:50(07) (C. Kottke)

MATH 1540. Topics in Abstract Algebra.
Galois theory together with selected topics in algebra. Examples of subjects which have been presented in the past include algebraic curves, group representations, and the advanced theory of equations. Prerequisite: MATH 1530
Spr MATH1540 S01 24298 TTh 10:30-11:50(09) (M. Rosen)

MATH 1560. Number Theory.
A basic introduction to the theory of numbers. Unique factorization, prime numbers, modular arithmetic, quadratic reciprocity, quadratic number fields, finite fields, Diophantine equations, and additional topics. Prerequisite: MATH 1530 or written permission
Spr MATH1560 S01 24290 MWF 10:00-10:50(03) (B. Viray)

MATH 1580. Cryptography.
The main focus is on public key cryptography. Topics include symmetric ciphers, public key ciphers, complexity, digital signatures, applications and protocols. MATH 1530 is not required for this course. What is needed from abstract algebra and elementary number theory will be covered. Prerequisite: MATH 0520 or MATH 0540
Fall MATH1580 S01 14784 MWF 11:00-11:50(04) (J. Silverman)

MATH 1610. Probability.
Basic probability theory. Sample spaces; random variables; normal, Poisson, and related distributions; expectation; correlation; and limit theorems. Applications in various fields (biology, physics, gambling, etc.). Prerequisites: MATH 0180, 0200 or 0350
Fall MATH1610 S01 14785 MWF 11:00-11:50(04) (D. Abramovich)

MATH 1620. Mathematical Statistics.
Central limit theorems, point estimation, interval estimation, multivariate normal distributions, tests of hypotheses, and linear models. Prerequisite: MATH 1610 or written permission
Spr MATH1620 S01 24291 TTh 9:00-10:20(08) (R. Kenyon)

MATH 1820A. Introduction to Lie Algebras.
Lie groups and Lie algebras are important, because they are the symmetries of structures such as quadratic forms, differential systems and smooth manifolds. The prototype of a Lie algebra is the space of 3-vectors together with their cross product, which is closely related to the Lie group of rotations. We will see how this basic example generalizes, mostly in the context of matrices. We'll examine special types of Lie algebras, such as nilpotent, soluble and semi-simple, study root systems and their diagrams, explore some representation theory, and end with the classification of the simple Lie algebras. Prerequisite: MATH 1530
Spr MATH1820AS01 25488 TTh 2:30-3:50(11) (A. Landman)

MATH 1970. Honors Conference.
Collateral reading, individual conferences. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
Fall MATH1970 S01 14786 TTh 2:30-3:50(11) (N. Kapouleas)

MATH 2050. Algebraic Geometry.
Complex manifolds and algebraic varieties, sheaves and cohomology, vector bundles, Hodge theory, Kähler manifolds, vanishing theorems, the Kodaira embedding theorem, the Riemann-Roch theorem, and introduction to deformation theory
Fall MATH2050 S01 14788 TTh 1:00-2:20(10) (A. Braverman)

MATH 2060. Algebraic Geometry.
See Algebraic Geometry (MATH 2050) for course description
Spr MATH2060 S01 24292 MWF 2:00-2:50 (D. Abramovich)

MATH 2110. Introduction to Manifolds.
Inverse function theorem, manifolds, bundles, Lie groups, flows and vector fields, tensors and differential forms, Sard's theorem and transversality, and further topics chosen by instructor
Spr MATH2110 S01 24293 TTh 2:30-3:50 (J. Kahn)

MATH 2250. Complex Function Theory.
Introduction to the theory of analytic functions of one complex variable. Content varies somewhat from year to year, but always includes the study of power series, complex line integrals, analytic continuation, conformal mapping, and an introduction to Riemann surfaces
Fall MATH2250 S01 14790 TTh 2:30-3:50(11) (J. Brock)

MATH 2260. Complex Function Theory.
See Complex Function Theory (MATH 2250) for course description
Spr MATH2260 S01 24294 MWF 11:00-11:50 (B. Cole)

MATH 2370. Partial Differential Equations.
The theory of the classical partial differential equations; the method of characteristics and general first order theory. The Fourier transform, the theory of distributions, Sobolev spaces, and techniques of harmonic and functional analysis. More general linear and nonlinear elliptic, hyperbolic, and parabolic equations and properties of their solutions, with examples drawn from physics, differential geometry, and the applied sciences. Semester II concentrates on special topics chosen by the instructor
Fall MATH2370 S01 14791 MWF 11:00-11:50(04) (W. Strauss)

MATH 2380. Partial Differential Equations.
The theory of the classical partial differential equations; the method of characteristics and general first order theory. The Fourier transform, the theory of distributions, Sobolev spaces, and techniques of harmonic and functional analysis. More general linear and nonlinear elliptic, hyperbolic, and parabolic equations and properties of their solutions, with examples drawn from physics, differential geometry, and the applied sciences. Semester II of this course concentrates on special topics chosen by the instructor
Spr MATH2380 S02 24295 MWF 1:00-1:50 (J. Holmer)

MATH 2410. Topology.
An introductory course with emphasis on the algebraic and differential topology of manifolds. Topics include simplicial and singular homology, de Rham cohomology, and Poincaré duality
Fall MATH2410 S01 14792 TTh 1:00-2:20(10) (J. Kahn)

MATH 2420. Topology.
See Topology (MATH 2410) for course description
Spr MATH2420 S01 24296 TTh 1:00-2:20 (T. Goodwillie)

MATH 2450. Exchange Scholar Program.

MATH 2510. Algebra.
Basic properties of groups, rings, and fields. Topics include: finite groups, representations of groups, rings with minimum condition. Galois theory, local rings, algebraic number theory, classical ideal theory, basic homological algebra, and elementary algebraic geometry
Fall MATH2510 S01 14793 TTh 10:30-11:50(09) (S. Lichtenbaum)

MATH 2520. Algebra.
See Algebra (MATH 2510) for course description
Spr MATH2520 S01 24297 Arranged (S. Lichtenbaum)

MATH 2530. Number Theory.
Introduction to algebraic and analytic number theory. Topics covered during the first semester include number fields, rings of integers, primes and ramification theory, completions, adeles and ideles, and zeta functions. Content of the second semester varies from year to year;
possible topics include class field theory, arithmetic geometry, analytic number theory, and arithmetic K-theory. Prerequisite: MATH 2510

MATH 2540. Number Theory
See Number Theory (MATH 2530) for course description

MATH 2710I. Topics in Effective Harmonic Analysis.
Graduate topics course in Harmonic Analysis
Fall MATH2710I S01 16661 MWF 10:00-11:50 (04) (N. Nikolski)

MATH 2710J. Topics in Harmonic Analysis and Probability.
Graduate topics course in harmonic analysis and probability
Fall MATH2710J S01 16640 MWF 11:00-11:50 (04) (S. Treil)

MATH 2710K. A Second Course in Riemannian Geometry.
Graduate topics course in Riemannian geometry
Fall MATH2710K S01 16670 TTh 12:00-1:20 (10) (G. Daskalopoulos)

MATH 2710L. Advanced Algebraic Topology.
Graduate Topics course in algebraic topology
Fall MATH2710L S01 16671 TTh 2:30-3:50 (11) (T. Goodwille)

MATH 2970. Preliminary Exam Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

MATH 2980. Reading and Research.
Independent research or course of study under the direction of a member of the faculty, which may include research for and preparation of a thesis. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

MATH 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

MATH XLIST. Courses of Interest to Graduate Students Majoring in Mathematics.
Fall 2012
The following courses may be taken for credit by graduate students majoring in Mathematics. Please check with the sponsoring department for times and locations.

Applied Mathematics
APMA 2110 Real Analysis
APMA 2630 Probability
Spring 2013
The following courses may be taken for credit by graduate students majoring in Mathematics. Please check with the sponsoring department for times and locations.

Applied Mathematics
APMA 2120 Hilbert Spaces and Their Applications
APMA 2640 Probability

Medieval Studies

MDVL 0210F. Beowulf to Apha Behin: The Earliest British Literatures
Interested students must register for ENGL 0210F S01 (CRN 14287)

MDVL 0660. The World of Byzantium
Interested students must register for CLAS 0660 S01 (CRN 15534)

MDVL 0980G. The Search for King Arthur
Interested students must register for HIST 0980G S01 (CRN 25272)

MDVL 1030. The Long Fall of the Roman Empire
Interested students must register for HIST 1030 S01 (CRN 15822)

MDVL 1031. The Viking Age
Interested students must register for HIST 1031 S01 (CRN 25169)

MDVL 1040. Crusaders and Cathedrals, Deviants and Domination: Europe in the High Middle Ages
Interested students must register for HIST 1040 S01 (CRN 24734)

MDVL 1100F. Fortunatus (LATN 1100F)
Interested students must register for LATN 1100F S01 (CRN 15523)

MDVL 1120G. The Idea of Self
Interested students must register for CLAS 1120G S01 (CRN 15526)

MDVL 1310V. Chaucer: The Canterbury Tales
Interested students must register for ENGL 1310V S01 (CRN 24610)

MDVL 1360J. Literatures of Medieval England
Interested students must register for ENGL 1360J S01 (CRN 14454)

MDVL 1750L. Erotic Desire in the Premonodorean Mediterranean
Interested students must register for CLAS 1750L S01 (CRN 24868)

MDVL 1900Y. Medieval Manuscript Studies: Paleography, Codicology, and Interpretation
Interested students must register for ENGL 1900Y S01 (CRN 24725)

Tutorial instruction on an approved topic in Late Antique and/or Medieval cultures, supervised by a member of staff. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. May be repeated once for credit

MDVL 1972H. Sex, Power, and God: A Medieval Perspective
Interested students must register for HIST 1972H S01 (CRN 24770)

MDVL 1976Z. Charlemagne: Conquest, Empire, and the Making of the Middle Ages
Interested students must register for HIST 1976Z S01 (CRN 15429)

Independent research and writing on a topic of special interest to the student, under the direction of a faculty member. Required of candidates for honors. Permission should be obtained from the Director of the Program in Medieval Studies

Middle East Studies

Limited to juniors and seniors. Section numbers vary by instructor. Please check Banner for the correct section and CRN to use when registering for this course. Required: all proposals for independent study must be approved by the faculty sponsor and the MES program director. Students should not register for any section of MES 1970 without this approval

MES XLIST. Courses of Interest to Students Concentrating in Middle East Studies.
For information on courses which may be of interest to students concentrating in Middle East Studies, please refer to the MES XLIST in the Class Schedule menu

Fall 2012
The following related courses, offered in other departments, may be of interest to students concentrating in Middle East Studies. Please see the course listing of the sponsoring department for times and locations.

Anthropology
ANTH 0066S Contemporary Egypt in Revolution
ANTH 1940 Ethnic Research Methods

Arabic
ARAB 0100 First-year Arabic
ARAB 0300 Second-year Arabic
ARAB 0500 Third-year Arabic
ARAB 0700 Fourth-year Arabic

Ancient Western Asian Studies
AWAS 0800 Introduction to the Ancient Near East

Classics
CLAS 0660 The World of Byzantium

Comparative Literature
COLT 0510J Modern Arabic Literature
COLT 0510K The 1001 Nights
COLT 1421T Mediterranean Fictions
COLT 1813A What Went Wrong? Narratives of Decline in Arabic Literature

Egyptology
EGYT 1310 Introduction to Hieroglyphic Egyptian Writing and Language
EGYT 1330 Selections from Middle Egyptian Hieroglyphic Texts
EGYT 1410 Ancient Egyptian Literature

Hindi-Urdu
HNDI 0700 Fourth-year Arabic

History
HIST 1020 Living Together: Muslims, Christians, and Jews in Medieval Iberia

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Modern Culture and Media

MCM 0110. Introduction to Modern Culture and Media.
An introduction to critical theory, cultural studies, and media analysis that addresses print, photography, film, television, and digital media. We will examine these media in relationship to influential theoretical approaches such as structuralism and post-structuralism, ideological analysis and psychoanalysis, feminist and queer theory, critical race theory and theories of post-colonialism and globality, and media and technology studies. LILE Fall MCM0110 S01 15996 MW 2:00-2:50(07) (L. Joyrich)

MCM 0260. Cinematic Coding and Narrativity.
Examination of the structural and ideological attributes of cinema, concentrating on the dominant narrative model developed in the American studio system and alternatives to that model. Emphasis on contemporary theories of cinematic representation. Students become conversant with specific elements and operations of the cinematic apparatus (e.g. camera, editing, soundtrack) and its production of discursive meanings. Students MUST register for the lecture, section and one screening. A sign up-sheet will be available for conferences after the first class meeting. Open to undergraduates only. LILE WRIT Fall MCM0260 S01 14390 MW 11:00-11:50(04) (P. Rosen)

MCM 0710. Introduction to Filmmaking: Time and Form.
A studio-style course on working with time based media, focused specifically on the technology of 16mm film production. With its focus on photographic and montage processes, as well as lighting and sound, the principles established in this course provide a solid foundation for all subsequent work in media, whether cinematic, video or new media, and it is strongly advised as a foundation level, skills oriented media course. Students produce a series of short, non-sync films. No previous experience required. Screenings, demonstrations and studio work. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. Up to 40 students can apply, but the final class list of 15 will be determined after this meeting, with permission of the instructor. Enrollment limited to 15. S/NC Fall MCM0710 S01 14303 T 1:00-3:50(10) (L. Thornton) Spr MCM0710 S01 23723 T 1:00-3:50(10) (L. Thornton)

MCM 0730. Introduction to Video Production: Critical Strategies and Histories.
Provides the basic principles of video technology and independent video production through a cooperative, hands-on approach utilizing small format video (Mini DV). Emphasizes video as a critical intervention in social and visual arts contexts. No previous experience required. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. The final class list will be determined after this meeting, with permission of the instructor. Enrollment limited to 12. S/NC Fall MCM0730 S01 14305 Th 3:00-5:50(15) (A. Cokes) Spr MCM0730 S01 23725 Th 3:00-5:50(15) (A. Cokes)

MCM 0750. Digital Art.
What would Andy Warhol's Facebook page look like? What would John Cage have done with an iPod? This introductory production course combines history, theory, and practice to explore the intersection of art and emerging digital technologies. Examples of recent student work include a dance performance lit by cell phones, a Dadaist video game, and an exquisite corpse made with Processing, a programming language for artists. Students examine and critique new media projects by various artists. Application required. Application is available in the MCM office. All subsequent work in media, whether cinematic, video or new media, and it is strongly advised as a foundation level, skills oriented media course. Students produce a series of short, non-sync films. No previous experience required. Screenings, demonstrations and studio work. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. Up to 40 students can apply, but the final class list of 15 will be determined after this meeting, with permission of the instructor. Enrollment limited to 15. S/NC Fall MCM0750 S01 23872 F 11:00-1:50(04) (M. Tribe)

MCM 091G. Digital Culture and Art after 1989.
How can we contextualize new media art alongside earlier forms of media such as photography and cinema? Is it relation to the "outside world" primarily conceived as representation, or as process? What are the cultural effects of this mediatized shift? Taking as our starting point the fall of the Berlin Wall and the resulting spread of capitalism as a near-global political-economic system, we will "read" a variety of works of art and culture from several contemporary theoretical perspectives. Topics
include digital media, the Internet, European cinema, and popular music. Readings from Galloway, Fukuyama, Deleuze, Hardt and Negri, Freud, Jameson, etc. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20. LILE

MCM 0901H. Uncomfortable Media.
Why are we often addicted to what disgusts us? This course analyzes why "uncomfortable media" – media that plays with notions of the perverse, the abject, and the taboo – remain so popular in the American cultural imaginary. Studying a variety of popular television programs and films, this course will approach these vacantly transgressive media texts through analyzing representation (how cultural taboos appear in popular culture) and analyzing spectatorship (how viewers perform discomfort). We will examine how developments in genre and narrative form, affect studies, performance studies, and queer theory have contributed to theorizing the perverse. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20. DVPS LILE

Fall MCM0901H S01 14424 T 4:00-6:20(15) (H. Hargraves)

MCM 0901I. Body Count: Technologies of Life and Death.
From the War on Terror and the global obesity crisis to self-help reality TV and new biotechnologies, questions of life and death have come to center stage of contemporary politics. This course investigates the theoretical and historical contexts under which "life itself" has emerged as a key arena of social, cultural, and technological importance. We will read critical studies of race, media, embodiment, and the state, tracing how distinctions between life and its others have structured the distribution of death, risk, and freedom in modernity. Topics include biocolonialism, cyborgs and swarms, U.S. prison regime, computer viruses, "bugchasing," suicide bombing. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20. DVPS LILE

Spr MCM0901I S01 23873 M 3:00-5:20(13) (A. Lison)

MCM 0901J. Adaptation Culture: New Media <-> Traditional Theatres (TAPS 0080).
Interested students must register for TAPS 0080 S01 (CRN 16451)

MCM 1110. The Theory of the Sign.
A survey of three late nineteenth-century theorists: Louis Althusser, Jacques Derrida, and Michel Foucault. Our analyses will focus on these figures as they emerge from and reorient the broad field of semiotics, with particular attention to the evolution of each oeuvre, the continuities and discontinuities that distinguish their theoretical claims, and their diverging legacies. Readings will include Althusser's Reading Capital and "Contradiction and Over-determination," Derrida's Of Grammatology and Spurs, and Foucault's This is Not a Pipe and History of Sexuality. Critical concepts to be examined include signification, reading, discourse, subjecivity, power, historicity, archaeology, the supplement, and difference. Prerequisite: MCM 0110, 0230, 0240, 0250, or 0260

Fall MCM1110 S01 23879 TTh 10:30-11:50(09) (E. Rooney)

This course focuses on the role of the star within the "machinery" of Hollywood: how stars function in the film industry, within cinematic and extra-cinematic texts, and at the level of individual fantasy and subjectivity, drawing on the works of film theories and histories and investigating films in which star images emerge from and reorient the broad field of semiotics, with particular attention to the evolution of each oeuvre, the continuities and discontinuities that distinguish their theoretical claims, and their diverging legacies. Readings will include Agamben, Bhabha, Abbas, Deleuze, Mbembe, Lessig, Heller-Roazen, Johns, Chatterjee, among others. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 50 sophomores, juniors, and seniors

Spr MCM1200G S01 23877 TTh 10:30-11:50(09) (L. Joyrich)

MCM 1201C. Imagined Networks, Glocal Connections.
This course examines emerging "imagined networks" (Arab Spring activists, global anti-globalization networks, global climate and financial systems) impacted by new media technologies and applications. Emphasis will be placed on understanding the changing relationship between the local and the global, and how "glocal" phenomena affect national and personal identities. Readings will be theoretical, historical, political and literary. Enrollment limited to 50 sophomores, juniors, and seniors

Spr MCM1201C S01 23727 TTh 2:30-3:50(11) (L. Joyrich)

MCM 1201J. Aesthetics and Politics (ENGL 1900E).
Interested students must register for ENGL 1900E S01 (CRN 14571)

MCM 1201K. Queer Relations: Aesthetics and Sexuality (ENGL 1900R).
Interested students must register for ENGL 1900R S01 (CRN 14572)

MCM 1201T. Russian Cinema (RUSS 1250).
Interested students must register for RUSS 1250 S01 (CRN 16056)

MCM 1201X. Global Media: History, Theory, Production (INTL 1800N).
Interested students must register for INTL 1800N S01 (CRN 15338)

Interested students must register for EAST 1270 S01 (CRN 14240)

By analyzing films from a variety of popular genres, from war to horror, gangster, action-thriller, and disaster films, we will consider the problem-solving function, visual pleasure, visceral thrills, and ethical stakes of multiple relations of film violence, including state violence, the domestic and gendered violence, heroic and anti-heroic violence, and spectacular, extreme, or fantastmatic violence. Further, we will ask what forms of sociality or intersubjective relations these differing modes of violence posit or problematize, to gain insight into broader questions concerning the anti-sociality of violence and the prevalence of film violence in the social, cultural, and historical contexts of contemporary East Asia. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 50 sophomores, juniors, and seniors

Fall MCM1202I S01 15573 TTh 2:30-3:50(11) (M. Cho)

MCM 1202J. Faking Globalization.
This course explores piracy and the fake across a range of economic, political, and cultural fields. We begin by building a genealogy of the pirate, and then shift our attention to the contemporary discourses of "faking globalization," "pirate modernity," "information feudalism," terrorism, and the like. Focus on issues related to property and the commons; innovation and value; authorship; intellectual property; mimesis and mimicry; the illegality of everyday life; development and globalization, as well as style, capacity, distribution, and consumption in/of pirate media. Readings include Agamben, Bhabha, Abbas, Deleuze, Mbembe, Liang, Lessig, Heller-Roazen, Johns, Chatterjee, among others. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 50 sophomores, juniors, and seniors

Spr MCM1202J S01 24309 TTh 6:30-7:50(12) (J. Neves)

MCM 1202K. Garibaldi Panorama: the Invention of a Hero (from pre-cinema to digital) (ITAL 1340).
Interested students must register for ITAL 1340 S01 (CRN 14460)

MCM 1202L. The Many Faces of Casanova (ITAL 1400J).
Interested students must register for ITAL 1400J S01 (CRN 23869)

MCM 1202N. Performance Theory: Ritual, Play and Drama in Context (TAPS 1230).
Interested students must register for TAPS 1230 S01 (CRN 15468)

MCM 1501O. Television, Gender, and Sexuality.
This course investigates how television produces and reproduces constructions of gender and sexuality through its institutional form (as it maps relations between the public and the private, the domestic and the social, the inside and the outside), narrative patterns (as it circulates family romances, links gender and genre, and mediates sexual and social tensions), and spectatorial relations (as it variously addresses viewers as sexed and gendered subjects, consumers and commodities, familial and defamiliarized viewers). Enrollment limited to 20. Prerequisite - one of the following: MCM 0110, MCM 0230, MCM 0240, MCM 0250, MCM 0260, MCM 1110, Preferences given to juniors, seniors, and graduate students. All others seek permission from the instructor

Spring MCM1501O S01 23729 W 3:00-5:20(14) (L. Joyrich)

MCM 1503B. Jane Austen and George Eliot (ENGL 1560A).
Interested students must register for ENGL 1560A S01 (CRN 24611)
MCM 1503L. South Korean Cinema: From Golden Age to Korean Wave (EAST 1950U)
Interested students must register for EAST 1950U S01 (CRN 23682)

MCM 1503M. Outside Media
Media technologies (e.g., film, television, digital) are often understood in relation to a rather limited set of locations, meanings, and practices. For instance, we generally take for granted that films are exhibited in movie theaters and TV in the home. Beyond such routine sites, this course examines the import of anthropological and spatial approaches to media and media theory. Focus on non-domestic media, intermediality, and contexts outside the cultural center (e.g., subaltern, non-western). Readings draw on anthropology, cultural geography, social theory, and media/cultural studies. Students will also develop media ethnographic projects utilizing video, photography, sound recording, etc. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20 juniors and seniors
Fall MCM1503M S01 14975 Th 4:00-6:20(15) (J. Neves)

MCM 1503N. Video Theory
This course takes as its starting point Sean Cubitt’s assertion in the early 1990s that there is not and never will be “video theory”—an assertion tethered to video’s perceived lack of a single or essential form. Focus on the history and theory of video across “old” and “new” media, including sound and image reproduction, broadcasting, video art, documentary, gaming, digital culture, and the internet. We will consider various historical understandings of video and their relation to production/distribution/ exhibition, aesthetics, ideology, virtuality, and mass culture. Readings drawn from Cubitt, Armes, Renov, Derrida, Galloway, Hilderbrand, Larkin, Elsaesser, Manovich, Deleuze, Sundaram, Juhasz, and others. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20 juniors and seniors
Spr MCM1503N S01 24312 F 3:00-5:20(15) (J. Neves)

MCM 1503O. Market Economy, Popular Culture, and Mass Media in Contemporary China (EAST 1950Q)
Interested students must register for EAST 1950Q S01 (CRN 23679)

MCM 1503P. Introduction to Theories of Narrative (ENGL 1900X)
Interested students must register for ENGL 1900X S01 (CRN 14983)

MCM 1503Q. Communication Culture and Literary Politics.
A common concept of “medium” ties communication culture to art and literature. But what’s a medium? Is it basic material for a work of art, like a sculptor’s clay? Is it a communications device, like a telephone? Or is it a means to share information, like a network? The course explores the social ramifications of these questions, while also considering how politics can mediate art and technology, not just the other way around. Materials include novels by Delany, Yamashita, Mackey, and LeQuin; video art; and media and community theory by Nancy, Terranova, Rancière, Riley, Mattelart, and Liu. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20 juniors and seniors
Fall MCM1503Q S01 16459 M 3:00-5:20(13) (M. Tierney)

MCM 1503R. Photography and Human Rights.
In the context of the current abundance of “images of atrocity” showing global human rights violations, this course will return to one milestone exhibition, The Family of Man (1955) as a potential archive containing “visual clauses” of a Universal Declaration of Human Rights. Through this exhibition, some subsequent photographic examples and related films, we will ask new questions about the documentary genre, about the role of imagination in photography, and about the use of photography in studying history, including a history of a potential past that never was and of the actual present that should not be. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20 juniors and seniors
Spr MCM1503R S01 25592 Th 4:00-6:20(15) "To Be Arranged"

MCM 1503S. Cinema and Memory
This course investigates some of the major ways in which cinema has been associated with memory from the late nineteenth century to the present day. Drawing from the history of cinema practice and criticism, as well as from key theories of memory, it provides multiple frameworks for making sense of cinema as a technology of memory. While we will examine popular films, emphasis is also placed on local, minority, non-theatrical, and small-scale cinemas. Topics to be covered include film archives, prosthetic memory, trauma, community and home movies, race, migration, nostalgia, and postmodernism. Prerequisite: MCM 0110, 0230, 0240, 0250, 0260, or 1110. Enrollment limited to 20 juniors and seniors
Fall MCM1503S S01 16462 T 4:00-6:20(15) (L. Liu)

MCM 1700B. Approaches to Narrative.
A production seminar for intermediate to advanced students in film and/or video production. Students complete a substantial media project in the course of the semester. Class meetings will focus on close readings and critical feedback of students’ work during all phases of production. Texts related to narrative theory and production will be discussed. Screenings of exemplary works will supplement the class. Class members should have completed at least one time-based media class. Students are expected to be competent technically. An application will be completed during the first class session and the final class list will be determined after this meeting, with permission of the instructor. S/NC
Fall MCM1700B S01 14311 W 2:00-4:50(14) (L. Thornton)

MCM 1700D. Reframing Documentary Production: Concepts and Questions.
An advanced seminar for students of video and/or film production. Focus on the critical discussion and production of documentary. A major project (10-20 minutes) and in-class presentations of work-in-progress required. Readings on the theory and practice of the form and selective screenings augment the presentation of student work. Class members should have completed at least one time-based media class. Students are expected to be competent technically. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. The final class list will be determined after this meeting, with permission of the instructor. Enrollment limited to 20. S/NC
Fall MCM1700D S01 14313 M 2:00-5:50(07) (A. Cokes)

MCM 1700F. Theory for Practice / Practice as Theory.
This advanced seminar explores the tensions between theory and practice in contemporary media and art works. The course examines how recent creative practices use theoretical concepts, and how practices today often include textual production or theoretical implications. Requirements include a major production project, short papers, presentations of work-in-progress, and weekly readings and screenings. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. The final class list will be determined after this meeting, with permission of the instructor. Enrollment limited to 20. S/NC
Spr MCM1700F S01 23967 M 3:00-5:50(13) (A. Cokes)

MCM 1700N. Open Source Culture.
Where do we draw the line between sampling and stealing? What would it mean to call a urinal a work of art? This production seminar explores the tension between artistic appropriation and intellectual property law, considering open source software as a model for cultural production. We will trace a history of open source culture from Cubist collage and the Readymades of Marcel Duchamp through Pop art and found footage film to Hip Hop and movie trailer mashups. Students give presentations and produce media art projects. Readings include Roland Barthes, Nicholas Bourriaud, and Rosalind Krauss. Enrollment limited to 40. S/N/C LILE
Fall MCM1700N S01 14316 F 11:00-1:50(04) (M. Tribe)

MCM 1700P. Radical Media.
Walter Benjamin wrote that in the age of mechanical reproduction art ceases to be based on ritual and “begins to be based on another practice--politics.” What is the relation between art and politics in an age of digital distribution? This course explores the nexus of media production and political action from the films of Sergei Eisenstein to WikiLeaks. Students give research-based presentations produce media art projects. Readings include Walter Benjamin, Jacques Rancière, and Claire Bishop. The final class list will be determined by the instructor. Enrollment limited to 40. S/N/C LILE
Fall MCM1700P S01 14461 F 3:00-5:50(15) (M. Tribe)

MCM 1700R. The Art of Curating.
It is sometimes said in contemporary art circles that curators are the new artists. Curating involves a wide range of activities, including research, selection, commissioning, collaboration with artists, presentation, interpretation, and critical writing. This production seminar considers curatorial practice as a form of cultural production, paying particular
MCM 1700S. Narrative and Immersion.
A production course examining the potentials for engagement in new media installations. The course draws on techniques of narrative to establish engagement in immersive environments. Students will be introduced to cinematic concepts, interactive technologies, multi-channel video and surround sound environments. Classes meetings will consist of viewing and analysis of exemplary work, discussion of readings, and critiques of student projects. An additional 1-hour technical workshop will be devoted to learning Jitter. Class members should have completed advanced work in film/video, digital sound, and/or creative writing. Open to upper-level undergraduate students and graduate students. The final class list will be determined after the first class meeting, by permission of instructor. Lab times to be announced. S/NC

Spr MCM1700S S01 23885 F 3:00-5:50(15) (M. Tribe)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

MCM 1990. Honors Thesis/Project in Modern Culture and Media.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Eight semester students only

MCM 2100. Habits of Living: Affect and New Media
How have we become habituated to and inhabitants of new media, and what are the effects of this voluntary and involuntary habituation? Focusing on the relationship between new media and affects—environmentally-provoked, non-conscious responses, central to the formation of individual / group perception—this course investigates new media networks as structures created through constant human and non-human actions. Enrollment limited to 20. This course is for Graduates only. Upperclass undergraduates require instructor’s permission. Students must register for the primary meeting and the film screening.

For spring 2013, interested students must register for HMAN 2970I S01 (CRN 25903).

MCM 2110F. The Plasticity of Form.
Cultural and literary studies have increasingly engaged with the question of the aesthetic and, as a consequence, with the problematics of reading, spectatorship and the user that emerges in new media. Our course will approach the articulation of subject and object at stake in these questions through the category of form. We will examine historical conceptualizations of form in various disciplines along with contemporary efforts to think form in critical, rhetorical, dynamic, interactive, and rhizomatic modes: to think the plasticity of form. Readings will range from Williams, Deleuze and Mulvey to Jacques Rancière and Catherine Malabou. Enrollment limited to 20 graduate students. Upperclass undergraduates require instructor permission.

Fall MCM2110F S01 14477 M 3:00-5:20(13) (E. Rooney)

Theoretical and political conceptions of state and global violence posed against the history of cinema, as representational apparatus and as institution. Special attention to the establishment of film as a global medium through War World I, and current work around “globalization,” “global media culture,” etc. Readings from sociopolitical theorists (e.g. Weber, Benjamin, Schmitt, Arendt, Agamben, Hardt and Negri, Foucault) and cinema/media scholars (e.g. Virilio, Prince, L. Williams, Kaes, etc.). Enrollment limited to 20. This course is for Graduates only. Upperclass undergraduates require instructor’s permission. Students must register for the primary meeting and one film screening.

Fall MCM2510B S01 14483 F 2:00-4:20(15) (P. Rosen)

MCM 2980. Independent Reading and Research in Modern Culture and Media.
Individual reading and research for doctoral candidates. Not open to undergraduates. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

MCM 2990. Thesis Preparation.
No description available

Music

MUSC 0010. Introduction to Western Music.
A study of a thousand years of music of Europe and America through CDs, DVDs, and YouTube. We’ll explore how individuals, institutions, and societies create music, use it, experience it, pay for it, and control it. We’ll discuss music and time, music and politics, music and identity. Still, the heart of the course is listening to great music, and learning how it works

Fall MUSC0010 S01 14454 TTh 10:30-11:50(09) (D. Josephson)

MUSC 0021B. Reading Jazz.
This course will explore the musical aesthetics of jazz in texts about its world. Students will listen to music and read poetry, fiction, autobiography and criticism to investigate techniques (including improvisation, rhythm, timbre and articulation), which authors such as Langston Hughes, Ralph Ellison, Charles Mingus, Stanley Crouch and Jack Kerouac employed to describe and support a creative community. Enrollment limited to 20 first year students.

FYS Fall MUSC0021BS01 14372 Th 4:00-6:20(15) (M. McGarrell)

MUSC 0021C. Bach.
The course will explore the life and work of J. S. Bach, with an emphasis on his place in the Baroque era, and his influence on later composers. Topics will include issues of performance practice, surviving source material, and performance issues in our own time. Students will listen to music, live and recorded, compare several biographies, and explore the world of Bach criticism. Enrollment limited to 20 first year students.

FYS Fall MUSC0021CS01 14359 TTh 9:00-10:20(08) (L. Jody)

MUSC 0021F. Popular Music and Society in Latin America.
This course examines the way that popular music shapes, and is shaped by, its social environment, with a special focus on twentieth-century Cuban and Brazilian styles. It introduces students to sociomusical analysis, by exploring the way that selected styles connect with the lived experiences of local audiences, the artistic and political goals that have motivated key performers, and the effect of their actions on broader regional debates. Issues covered include the way that musical styles become national symbols; music as a medium for social politics; and the role of industrialization, migration, urbanization, and media dissemination in driving musical change. Enrollment limited to 20 first year students.

DVPS, FYS, LILE

Fall MUSC0021FS01 14374 MWF 10:00-10:50(03) (C. Tucker)

Ever since Karl Marx and Friedrich Engels wrote their "Communist Manifesto" (1848), artists, activists and politicians have used manifestos to announce radical change and justify provocative new ideas or practices. This seminar examines the manifesto as a genre of writing with a particularly strong influence on artistic movements in 20th century Modernism. Looking at examples by poets, musicians, and visual artists, we consider how they are informed by visions of progress, social action, political efficacy, and artistic or historical necessity. Authors include Russolo, Apollinaire, Schoenberg, Munch, Klee, Kandinsky, Stravinsky, Dai, Borges, Artaud, Frank O'Hara, Duchamp, Mallarmé, and Boulez.

Enrollment limited to 20 first year students.

FYS WRIT

Fall MUSC0021H S01 15007 M 3:00-5:20(13) (D. Gooley)

MUSC 0030. History of Jazz.
The development of jazz from its roots to the present. Focuses on the study of style types (including New Orleans style, early piano jazz, swing, bebop, and cool jazz) and their major instrumental and vocal exponents. Jazz as a social phenomenon is studied in relation to contextual aspects of folk, popular, and art music traditions in the U.S.
MUSC 0040. World Music Cultures (Africa, America, Europe, Oceania).
A survey of a variety of musical styles from Africa, the Americas, Europe, and Oceania outside the Western art music tradition. Introduces these musics in their historical, social, and cultural context, in an attempt to understand them in their own theoretical systems and aesthetic frameworks.
Spr MUSC0040 S01 23797 MWF 10:00-10:50(03) (B. Hanson)

MUSC 0041. World Music Cultures (Middle East and Asia).
Introductory survey of several of the world’s musical traditions, with an emphasis on East, South, and Southeast Asia. Expands powers of musical appreciation through lectures, guided listening, and active participation in music-making. Focuses on traditional music and its relations to dance and theatre, and to its social, religious, and historical contexts, but also includes popular music and the effects of modernization. No prerequisites.
Fall MUSC0041 S01 14348 TTh 2:30-3:50(11) (M. Perlman)

MUSC 0051. Mozart.
Mozart’s life and music from soup to nuts. While we’ll read some of the rich correspondence that anchors his biography, the heart of the course is a study of his glorious music, from intimate private piano pieces to public operas and ending with the Requiem. A rudimentary ability to read music is necessary. We’ll offer an optional listening section.
Spr MUSC0051 S01 23800 MW 11:00-11:50(04) (D. Josephson)

MUSC 0064. Honky Tonk Heroes.
This course explores country music from its origins to the present day. We will trace its development through the careers of foundational artists like the Carter Family, Hank Williams, Loretta Lynn, and Willie Nelson, and evaluate the way that their legacy is reflected in the work of contemporary artists like Corb Lund, Hayes Carll, and Neko Case. Beyond the individual creativity of these figures, we will consider the way that country music has been shaped by the recording industry, the relation it has to race, gender, and political identities, and the international spread of the American country sound.
Spr MUSC0064 S01 24440 TTh 2:30-3:30(11) (C. Tucker)

MUSC 0080. Adaptation Culture: New Media — Traditional Theatres (TAPS 0080).
Interested students must register for TAPS 0080 S01 (CRN 16451).

An introduction to the field of computer music, focusing on the use of computers and computers in music and performance. Investigates basic acoustics, perception of sound, the history of music technology, and musical applications. Extensive listening assignments illustrate the impact of technology on popular and experimental genres. No prerequisites, though some experience with computers and some knowledge of music is very helpful. Significant hands-on experience with computer music systems. Enrollment limited to 80 students. Permission will be granted based on a questionnaire given in the first class, with preference given to lower-level students.
Fall MUSC0200 S01 14357 TTh 10:30-11:50(09) (T. Winkler)

MUSC 0210D. Advanced Studio Composition.
This course will focus on developing and reinforcing fundamental technical skills, musical concepts, and critical listening abilities associated with the practice of composition in an electronic music studio. These studies will be tied to a broad range of aesthetic approaches and discussions of medium, audience, and context. Through a series of self-directed projects, students will be encouraged to expand their knowledge and craft, and will provide each other with a forum for exploring their creative studio work.
Prerequisite: MUSC 0200. Preference will be given to students who have previously taken MUSC 1200, 1210, and/or 1250. Enrollment limited to 15
Spr MUSC0210D S01 25605 TTh 4:00-6:50(15) (S. Moore)

MUSC 0220. Electroacoustic Improv Ensemble.
An ensemble devoted to free improvisation with new media. Experimental approaches to sound and focused listening techniques are explored with acoustic instruments, live electronics, real-time video, together with networked improvisation, and more. Enrollment limited to 12 students; by audition.
Fall MUSC0220 S01 16276 W 7:00-9:50PM(18) (J. Rovan)

MUSC 0221. Electroacoustic Improv Ensemble.
An ensemble devoted to free improvisation with new media. Experimental approaches to sound and focused listening techniques are explored with acoustic instruments, live electronics, real-time video, together with networked improvisation, and more. Enrollment limited to 12 students; by audition.
Spr MUSC0221 S01 25606 W 7:00-9:50PM(18) (T. Winkler)

MUSC 0400. Introduction to Music Theory.
An introduction to musical terms, elements, and techniques, including notation, intervals, scales and modes, triads and seventh chords, modulation, melody writing and harmonization, analysis, and composition. Ear-training and sight-singing are included. For students with some musical training. Enrollment limited to 40
Spr MUSC0400 S01 24640 TTh 9:00-10:20(08) 'To Be Arranged'

MUSC 0550. Theory of Tonal Music.
Prerequisite to music concentration. For students with knowledge of rudiments of music, including scales, intervals, key signatures, rhythm, and meter. Knowledge of keyboard strongly recommended. Intensive study of voice leading and tonal harmony; analysis, ear training, sight singing, keyboard exercises. A placement test will be administered in Owig 315 at the first regular class meeting. Students intending to enroll in MUSC 0550 must take this test. Experienced instrumentalists or singers who have some facility reading music at sight normally place into MUSC 0550. MUSC 0400 is appropriate for students who need training in the rudiments to prepare for MUSC 0550. MUSC 0550 is prerequisite to MUSC 0560.
Fall MUSC0550 S01 14360 TTh 1:00-2:20(10) (J. Baker)
Fall MUSC0550 S02 14361 TTh 1:00-2:20(10) (M. Steinbach)

See Theory Of Tonal Music (MUSC 0550) for course description.
Prerequisite: MUSC 0550 or permission of the instructor.
Spr MUSC0560 S01 23814 TTh 1:00-2:20(10) (J. Baker)
Spr MUSC0560 S02 23815 TTh 1:00-2:20(10) (M. Steinbach)

MUSC 0600. Chorus.
Half credit each semester. A practical study of choral literature, techniques, and performance practice from Gregorian chant to the present, offered through rehearsals, sectionals, and performance. Enrollment is by audition, based on voice quality, experience, and music-reading ability. Instructor permission required.
Fall MUSC0600 S01 14378 MW 6:30-8:20PM(18) (L. Jodry)

MUSC 0601. Chorus.
See Chorus (MUSC 0600) for course description.
Spr MUSC0601 S01 24332 MW 6:30-8:20PM(18) (L. Jodry)

MUSC 0610. Orchestra.
Half credit each semester. A practical study of the orchestra repertory from Bach to the present, offered through coaching, rehearsals, and performances. Enrollment is by audition. Students will be notified of audition results within the first seven days of the semester. Restricted to skilled instrumentalists. May be repeated for credit.
Fall MUSC0610 S01 14379 TTh 7:15-9:45PM(14) (P. Phillips)
Fall MUSC0610 S01 14379 T 7:15-9:45PM(14) (P. Phillips)

MUSC 0611. Orchestra.
See Orchestra (MUSC 0610) for course description.
Spr MUSC0611 S01 23433 TTh 7:15-9:45PM(12) (P. Phillips)

MUSC 0620. Wind Symphony.
Half credit each semester. A practical study of the wind band repertory from Mozart to the present, offered through coaching, rehearsals, and performances. Enrollment is by audition. Restricted to skilled instrumentalists. Instructor permission required,
Fall MUSC0620 S01 14380 W 6:00-8:20PM(18) (M. McGarell)
Fall MUSC0620 S02 14380 M 6:00-7:20(18) (M. McGarell)

MUSC 0621. Wind Symphony.
See Wind Symphony (MUSC 0620) for course description.
Spr MUSC0621 S01 24334 W 6:00-8:20PM(18) (M. McGarell)
Spr MUSC0621 S01 24334 M 6:00-7:20(18) (M. McGarell)
MUSC 0630. Jazz Band.
Half credit each semester. A practical study of jazz from the 1920s to the present through coaching, rehearsals, and performance. Seminars on arranging, ear training, and improvisation are conducted for interested students but the focus is on performance. Enrollment is by audition. Restricted to skilled instrumentalists and vocalists. Instructor permission required.
Fall MUSC0630 S01 14381 Th 6:00-7:20(18) (M. McGarrell)
Fall MUSC0630 S01 14381 M 7:30-8:50PM(18) (M. McGarrell)
Fall MUSC0630 S02 15786 T 8:00PM-9:20PM(18) (M. McGarrell)
Fall MUSC0630 S03 15787 W 2:00-3:20(07) (M. McGarrell)
Fall MUSC0630 S04 15788 W 4:00-5:20(14) (M. McGarrell)

MUSC 0631. Jazz Band.
See Jazz Band (MUSC 0630) for course description
Spr MUSC0631 S01 24337 Th 6:00-7:20(18) (M. McGarrell)
Spr MUSC0631 S01 24337 M 7:30-8:50PM(18) (M. McGarrell)
Spr MUSC0631 S02 24343 T 8:00PM-9:20PM(12) (M. McGarrell)
Spr MUSC0631 S03 24344 W 2:00-3:20(07) (M. McGarrell)
Spr MUSC0631 S04 24345 W 4:00-5:20(14) (M. McGarrell)

MUSC 0640. Ghanaian Drumming and Dancing Ensemble.
A dynamic introductory course on drumming, dancing, and singing of Ghana and the diaspora. Students learn to perform diverse types of African music, including Ewe, Akan, Ga, and Dagomba pieces on drums, bells, and shakers. No prerequisites. May be repeated for credit. Enrollment limited to 15. Instructor permission required.
Fall MUSC0640 S01 14382 W 5:00-7:20(14) (M. Obeng)

MUSC 0641. Ghanaian Drumming and Dancing Ensemble.
A dynamic introductory course on drumming, dancing, and singing of Ghana and the diaspora. Students learn to perform diverse types of African music, including Ewe, Akan, Ga, and Dagomba pieces on drums, bells, and shakers. No prerequisites. May be repeated for credit. Enrollment limited to 15. Instructor permission required.
Spr MUSC0641 S01 24346 W 5:00-7:20(14) (M. Obeng)

MUSC 0645. Brazilian Choro Ensemble.
Half credit each semester. Students will play this popular Brazilian style, which emerged in the late 19th century and is often compared to early jazz. Classes run according to the traditional roda model, a structured jam session where performers read through, improvise upon, and hone their abilities to play familiar tunes. Prior familiarity with choro music not required; but some instrumental expertise is; ability to read notation preferred. Typical instruments include guitar, cavaquinho (Brazilian ukulele), mandolin, flute, and pandeiro (Brazilian tambourine), but others are welcome to participate on instructor approval, as are performers interested in learning these. Enrollment limited to 20
Fall MUSC0645 S01 16135 M 5:30-7:00(18) (C. Tucker)

MUSC 0646. Brazilian Choro Ensemble.
Half credit each semester. Students will play this popular Brazilian style, which emerged in the late 19th century and is often compared to early jazz. Classes run according to the traditional roda model, a structured jam session where performers read through, improvise upon, and hone their abilities to play familiar tunes. Prior familiarity with choro music not required; but some instrumental expertise is; ability to read notation preferred. Typical instruments include guitar, cavaquinho (Brazilian ukulele), mandolin, flute, and pandeiro (Brazilian tambourine), but others are welcome to participate on instructor approval, as are performers interested in learning these. Enrollment limited to 20
Spr MUSC0646 S01 25459 M 5:30-7:00(16) (C. Tucker)

MUSC 0650. Javanese Gamelan.
Half credit each semester. Instruction, rehearsals, and performances in the gamelan music of Java, on instruments owned by the department. No prerequisites. Enrollment limited to 18 students
Fall MUSC0650 S01 14383 T 6:00-8:50PM(14) (M. Perlman)

MUSC 0651. Javanese Gamelan.
See Javanese Gamelan, MUSC0650, for course description. Enrollment limited to 18 students
Spr MUSC0651 S01 24347 T 6:00-8:50PM(12) (M. Perlman)

MUSC 0650. Sacred Harp/Shape-Note Singing.
Half credit each semester. Students will learn the traditional performance practices associated with the shape-note tunebook The Sacred Harp, a compilation of American vernacular hymnody first published in Georgia in 1844. This is an unaccompanied, four-part, participatory singing tradition. Ability to read Western music notation helpful but not required. No concert performances. No prerequisites. Repeatable for credit. S/NC
Fall MUSC0650 S01 14384 Th 5:00-6:50(15) (K. Miller)

MUSC 0661. Sacred Harp/Shape-Note Singing.
Half credit each semester. Students will learn the traditional performance practices associated with the shape-note tunebook The Sacred Harp, a compilation of American vernacular hymnody first published in Georgia in 1844. This is an unaccompanied, four-part, participatory singing tradition. Ability to read Western music notation helpful but not required. No concert performances. No prerequisites. Repeatable for credit. S/NC
Spr MUSC0661 S01 24349 Th 5:00-6:50(12) (C. Johnson-Roberson)

MUSC 0670. Old-Time String Band.
Half course each semester. Instruction and ensemble playing. Music taught by ear. American (southern Appalachian Mountain) traditional music on violin (fiddle), 5-string banjo, mandolin, and guitar. Enrollment limited to 20 students
Fall MUSC0670 S01 14385 T 7:00-8:50PM(15) (S. Austryus)

MUSC 0671. Old-Time String Band.
See Old-Time String Band (MUSC 0670) for course description. Enrollment limited to 20 students
Spr MUSC0671 S01 24350 T 7:00-8:50PM(12) (J. Titon)

MUSC 0680. Chamber Music Performance.
Half credit each semester. The practical study of the literature of chamber music through participation in a small ensemble. Regular rehearsals, coaching by department staff, and performances are required. Enrollment is by audition. Students will be notified of audition results within the first ten days of the semester. Restricted to skilled instrumentalists. May be repeated for credit
Fall MUSC0680 S01 14386 Arranged (P. Phillips)

MUSC 0681. Chamber Music Performance.
See Chamber Music Performance (MUSC 0680) for course description
Spr MUSC0681 S01 24351 Arranged (P. Phillips)

Half credit each semester. Restricted to skilled musicians. OPENINGS ARE LIMITED. Enrollment and re-enrollment is by audition and jury. Lessons are given by consultants to the Applied Music Program. A fee is charged for enrollment. Copies of the Applied Music Program Guidelines giving detailed information are available online at www.brown.edu/music. May be repeated up to four times for credit

A history of music in European society from Monteverdi’s opera Orfeo to Beethoven’s Ninth, studied through texts, scores, CDs, DVDs, and YouTube. We’ll spend two-thirds of our time on five composers: Bach, Handel, Haydn, Mozart, and Beethoven. Prerequisite: MUSC0550 or equivalent
Fall MUSC0920 S01 14345 TTh 2:30-3:50(11) (D. Josephson)

A history of European and American art music from Beethoven’s Ninth Symphony to the Postmodernists. Prerequisite: MUSC 0550 or permission of instructor
Spr MUSC0930 S01 23811 TTh 10:30-11:50(09) (D. Gooley)

MUSC 1010. Advanced Musicianship I.
Training in advanced musicianship skills relevant to Western art music from the sixteenth Century to the present, including sight singing, ear training, score reading, keyboard harmony, improvisation, and musical transcription. Prerequisite: MUSC 0560 with a grade of B, or permission of the instructor
Fall MUSC1010 S01 13477 MWF 2:00-5:00(07) (A. Cole)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
MUSC 1011. Advanced Musicianship II
Continuation of MUSC 1010. Prerequisite: MUSC 1010 or permission of the instructor
Spr MUSC1011 S01 23808 MWF 2:00-2:50(07) (A. Cole)

MUSC 1030. Tonal Counterpoint.
The contrapuntal techniques of the 18th century with emphasis on music of Bach. Written exercises in and analysis of several genres including fugue. Prerequisite: MUSC 0560 or permission of instructor
Fall MUSC1030 S01 14365 TTh 1:00-2:20(10) (G. Shapiro)

MUSC 1050. Advanced Music Theory II.
A study of theories of Western art music since Debussy. Exercises in analysis and composition, focusing on works of Debussy, Stravinsky, Schoenberg, Webern, Bartok and Ives. Students give presentations on selected later composers. Prerequisite: MUSC 0560 with grade of B, or the equivalent
Spr MUSC1050 S01 24546 MWF 11:00-11:50(04) (J. Baker)

MUSC 1110. Seminar in Composition.
Finding a personal voice as a composer. Assignments develop familiarity with large forms and increasingly complex structures. Analyses of contemporary compositions elucidate issues of aesthetic and political stances inherent in compositional activity and teach technical facility and range of expression. Problems of rehearsal and performance for new music are considered. Prerequisite: MUSC 0560 and 1100, or permission of the instructor. Enrollment limited to 20 students
Fall MUSC1110 S01 14364 Th 4:00-6:20(15) (G. Shapiro)

A study of advanced studio techniques taught in parallel with topics in psychoacoustics. Students will create original studio work while developing listening and technical skills for audio production. Technical topics include recording, signal processing and mixing software, microphone technique, and live sound engineering. Class size is limited. Preference will be given to students who have completed MUSC 0200. Students will be evaluated for potential future work in the MEME program (Multimedia and Electronic Music Experiments) and past participation in MEME. Admission is determined by an entrance questionnaire completed at the first class meeting. Prerequisite: MUSC 0200
Spr MUSC1200 S01 23813 TTh 10:30-11:50(09) (J. Moses)

Seminar in Electronic Music is a study of music employing electronic media, including real-time digital signal processing, multimedia, and live performance. Technical aspects of the course focus on programming using Max/MSP to create interactive projects and algorithmic compositions. Permission of instructor required. Interested students must come to the first class. Preference will be given to students who have completed MUSC 0200
Fall MUSC1210 S01 14353 TTh 10:30-11:50(09) (J. Rovan)

MUSC 1240B. Narrative and Immersion.
A production course examining the potentials for engagement in new media installations. The course draws on techniques of narrative to establish engagement in immersive environments. Students will be introduced to cinematic concepts, interactive technologies, multi-channel video and surround sound environments. Class meetings will consist of viewing and analysis of exemplary work, discussion of readings, and critiques of student projects. An additional 1-hour technical workshop will be devoted to learning Jitter. Class members should have completed advanced work in film/video, digital sound, and/or creative writing. Open to upper-level undergraduate students and graduate students. The final class list will be determined after the first class meeting, by permission of instructor. Lab times to be announced. S/NC
Spr MUSC1240B S01 23805 W 1:00-4:50(06) (T. Winker)

MUSC 1250. Sound Design.
This production seminar is a study of techniques and aesthetics used to create sonic environments and effects that enhance a variety of media including video, radio and audio art, new media, theater, and installation art. Technical topics include audio production in multi-channel formats, advanced audio editing, mixing and synthesis techniques, and audio system design. Enrollment limited to 12 students. Preference will be given to students who have completed MUSC 1200. Others will be evaluated for potential future work in the MEME program (Multimedia and Electronic Music Experiments) and past participation in MEME. Admission is determined by an entrance questionnaire completed at the first class meeting. Prerequisite: MUSC 1200
Fall MUSC1250 S01 14352 TTh 2:30-3:50(11) (J. Moses)

MUSC 1640F. Seminar in Opera Studies: Italian Opera from "The Barber of Seville" to "Madama Butterfly".
A study of ten nineteenth- and early-twentieth century Italian operas by Rossini, Bellini, Donizetti, Verdi, and Puccini. We'll study the sources of their librettos, the opera houses that presented them, and their singers and orchestras. We'll examine them as musical dramas, psychological studies, social documents, and sites for stage directors. Finally we'll consider their reception from their early days to the present. Work will include DVDs, CDs, and readings
Spr MUSC1640FS01 24356 M 3:00-5:20(13) (D. Josephson)

MUSC 1640G. The Case of Wagner.
This seminar will explore Wagner's Richard Wagnerian and revolutionary aesthetics and politics in the 19th century. Close textual, musical, and production analysis of three Wagner music-dramas -Lohengrin, Die Walküre, and Parsifal- will accompany reading and discussion of philosophical and critical texts from Nietzsche to Zizek. Enrollment limited to 20. Instructor permission required
Fall MUSC1640G S01 15072 W 3:00-5:20(14) (M. Steinberg)

A study of the history and craft of film scoring. Emphasis is placed on critical theories and analytic approaches to music and the moving image. Special focus on composers Steiner, Hermann, Williams, and Copi. Prior musical training an asset but not required. Enrollment limited to 25
Fall MUSC1645 S01 16151 TTh 4:00-5:20(15) (F. Lehman)

Explores the visual and theatrical dimensions of music performance--both recent and historical--through the analysis of live performances, video clips, and historical documents. Using the critical methods of performance studies, we seek to uncover those aspects of musical experience that have become transparent or normalized by their familiarity, and which are eluded by a traditional focus on music as "sound alone." We concentrate on five genres--rock, classical, pop, jazz, and experimental--and consider figures such as Arturo Toscanini, David Bowie, Jimi Hendrix, Louis Armstrong, Miles Davis, Pauline Oliveros, John Zorn, Diamanda Galás, Madonna and Michael Jackson. Enrollment limited to 24. First year students require instructor permission
Spr MUSC1680 S01 23821 TTh 2:30-3:50(11) (D. Gooley)

MUSC 1700. Score Reading and Conducting.
The art of reading, analyzing, and conducting a musical score. Studies in clef reading, transposition, ear-training, and structural analysis to develop the skills needed for full comprehension of an orchestral score. Introduces the theory and technique of conducting with practice in the art of physical gesture. Selected repertoire from the Baroque through contemporary periods are studied and conducted in class. Prerequisite: MUSC 0550 or permission of the instructor. May be repeated for credit
Spr MUSC1700 S01 25530 M 3:00-5:20(13) (P. Phillips)

Half credit each semester. Restricted to skilled musicians. Restricted to skilled musicians demonstrating mastery of an advanced repertory in their fields. Openings are limited. Enrollment and re-enrollment is by audition and jury. Lessons are given by consultants to the Applied Music Program. MUSC 0830, 0840 is prerequisite to this course. A fee is charged for enrollment. Copies of the Applied Music Program Guidelines giving detailed information are available online at www.brown.edu/ music. Prerequisite: MUSC 0400, or MUSC 0550, MUSC 0560. Written permission required. May be repeated up to four times for credit

MUSC 1900. Introduction to Ethnomusicology.
The study of people making music. Ethnographic research and writing on musical practices; history of ethnomusicology; musical case studies from around the world highlighting such issues as authenticity, tradition,
commercialism, amateurism, postcolonial politics, and the ethics of fieldwork.

Fall MUSC1900 S01 14349 TTh 10:30-11:50(09) (K. Miller)

MUSC 1905A. Music and Cultural Policy.
What is to be done about music and the people who make it? All over the world, individuals, governments, NGOs, and other groups are making plans for music: to ensure its survival, to make it known to a wider public, or to use it as an engine of economic growth. This course will examine various social engineering projects involving music. Topics will include media and internet regulation; ownership of music and intellectual property law; the role of institutions such as UNESCO; music in war and peace; music, heritage, and cultural tourism; and conservation, stewardship, and sustainability. No prerequisites
Spr MUSC1905A S01 23809 W 3:00-5:20(14) (J. Rovan)

This course approaches the social life of popular music by examining the people, the sites of media work, and the systems of circulation through which sounds are made into public objects. Considering music not only as sound, but also as commodity and signifying practice, we will discuss record studios and labels, radio and television broadcasts, internet distribution, and points of sale, among others, as key sites where musicians and those they work with make decisions about sound, decisions that are driven by ideological and economic considerations, and which in turn shape the audiences that accrue to particular styles and recordings.
Fall MUSC1915 S01 15074 M 3:00-5:20(13) (C. Tucker)

Examines topics related to the everyday use of music: the determinants of musical taste; music for emotional self-management (in the health club or Iraq War); "high" vs. "low" music; eclectic taste; popular music and the music industry; mp3blogs; new business models. Readings (in sociology, history, and cultural studies) and original field research by class members.
Instructor permission required. Enrollment limited to 20
Spr MUSC1920 S01 23810 M 3:00-5:20(13) (M. Perlman)

MUSC 1950. Transcription and Analysis of Jazz.
Transcriptions from major jazz recordings are made by the students. The personal styles of the musicians are defined through analysis in the context of the various trends in jazz history. The transcriptions are analyzed within the parameters of rhythmic and harmonic structures, tone quality, motivic design, and idiomatic performance. Singing, ear-training, and dictation are used to develop transcription skills. Instructor permission required.
Spr MUSC1950 S01 23802 Th 12:00-2:50(10) (E. Tomassi)

Students with experience in African and related musical traditions perform drumming, dancing, and singing of Ghana and the diaspora. Focus on a more challenging repertoire with emphasis on multi-part, lead, and improvisational playing. Prerequisite: audition. May be repeatable for credit. Instructor permission required. Enrollment limited to 15 students
Fall MUSC1960 S01 14387 W 7:30-9:50PM(18) (M. Obeng)

Students with experience in African and related musical traditions perform drumming, dancing, and singing of Ghana and the diaspora. Focus on a more challenging repertoire with emphasis on multi-part, lead, and improvisational playing. Prerequisite: audition. May be repeatable for credit. Instructor permission required. Enrollment limited to 15 students
Spr MUSC1961 S01 24352 W 7:30-9:50PM(18) (M. Obeng)

Directed undergraduate research for advanced students. Prerequisite: permission of the instructor. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Directed undergraduate research for advanced students. Prerequisite: permission of the instructor. Section numbers vary by instructor. Please see the registration staff for the correct section number to use when registering for this course

A history of thought about music outside the Western art music tradition. Three historical paradigms-comparative musicology, musical folklore, and ethnomusicology-and the search for a new approach to ethnomusicology in the postcolonial era. Prerequisite: MUSC 1900 or consent
Spr MUSC2000 S01 23803 W 12:20-2:50(05) (J. Titon)

MUSC 2050. Musical Thinking.
An ethnomusicological approach to the analysis of musical structures and processes. Case studies include jazz, Irish music, French-Canadian fiddling, North Indian singing, Javanese gamelan, African drumming, and Japanese court music. Topics include linguistic, psychological, and oral-formulaic theories; historical change; cross-cultural modal theory; improvisation; the nature of African rhythm; "insider" versus "outsider" accounts. Readings, discussion, and first-hand experience of selected musics. Facility with Western staff notation required
Fall MUSC2050 S01 14350 W 3:00-5:20(14) (M. Perlman)

MUSC 2080A. Seminar in Ethnomusicology: Music and Technoculture.
This seminar investigates ethnomusicological approaches to technologically-mediated musical practices. Case studies will focus on recording studios, electronic dance music, broadcast media, digital gameplay, virtual-reality spaces, multimedia installations, and popular music reception. Theoretical readings will be drawn from anthropology of the media, reception studies, and media design/production texts. Students will conduct ethnographic projects. Prerequisite: graduate standing or written permission
Fall MUSC2080A S01 14351 M 3:00-5:20(15) (K. Miller)

MUSC 2080D. Music, Nation, and Nationalism.
This course explores the relation between music and nationhood, as a historically particular form of collective identity, and a dominant political category in late modern societies. Students will work with key texts in the study of nationhood and nationalism, applying them to musical case studies from different world regions. Touching upon art and popular music, these cases will explore the use of nationalist rhetoric to draw citizens into state projects; the appropriation of minority expressions in defining a national self; efforts by postcolonial societies to forge national sentiment from the fragments left by decolonization; and the nation’s fate after globalization
Spr MUSC2080D S01 23822 Th 4:00-6:20(15) (C. Tucker)

MUSC 2210. Digital Performance.
A production seminar examining the artistic impact and creative potential of digital media in the context of live performance. Readings and analysis of work examine innovations in performance practice from dance, theatre, performance art and music. Collaborative assignments investigate video projection, sound design and interactive sensor technology, culminating in a final large-scale performance. Permission will be granted based upon a questionnaire given in the first class
Fall MUSC2210 S01 14358 W 1:00-4:50(06) (T. Winkler)

This seminar will explore the use of interactive systems from the point of view of the programmer/performer. Using improvisation as a starting point, we will explore the aesthetics and philosophy of performance, designing real-time systems that enhance the relation between action and event. The immediacy of improvised performance will then offer a perspective on the actions implied in composition itself. Systems designed for the individual performer become the basis for a large-scale real-time composition. Previous experience with MaxMSP or other real-time programming required. Permission of instructor required
Fall MUSC2230 S01 14356 M 3:00-5:20(15) (J. Rovan)

MUSC 2280. Designing-Large-Scale Multimedia Projects.
A production seminar designed for students working on a single, large project in Multimedia and/or Computer Music. The course covers planning and implementation strategies, with group critiques of proposals and works-in-progress. The class structure includes individual lessons for students working on a graduate or undergraduate thesis project. Permission will be granted based upon a questionnaire given in the first class
Spr MUSC2280 S01 23807 Th 1:00-3:50(10) (T. Winkler)

MUSC 2450. Exchange Scholar Program.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
**PHIL 0100. Critical Reasoning.**
An introduction to the principles and techniques of correct reasoning and effective communication. Topics may include deduction and induction, meaning and definition, fallacies in reasoning, the basic logic of propositions and predicates, and the essentials of inductive reasoning
Fall PHIL0100 S01 15702 TTh 9:00-10:20(08) (S. Emet)

**PHIL 0120. Freedom and Responsibility.**
An introduction to philosophy by way of consideration of such issues as: whether we are, can be, or ought to be free to think and act as we choose; whether we are or can be responsible (morally or legally) for our thoughts or actions or their consequences; and whether we ought to be punished for any of our thoughts or actions or their consequences. Readings from classical and contemporary sources
Spr PHIL0120 S01 25150 TTh 9:00-10:20(08) (P. Galligan)

**PHIL 0190. Contemporary Moral Problems.**
This semester we will concentrate on the issue of freedom of speech. In addition to foundational arguments in philosophy and law, we will look specifically at issues around political expression, pornography, hate speech, and the internet. Students will write three short papers, no exams. Emphasis is placed on identifying, evaluating, and constructing careful and well thought-out arguments. No prerequisites
Fall PHIL0190 S01 15035 MWF 1:00-1:50(06) (E. Estlund)

**PHIL 0350. Ancient Philosophy.**
We will discuss the ethics, epistemology, and metaphysics of the principal figures in ancient philosophy from the Presocratics to Aristotle. Emphasis is given to understanding the problems the philosophers were trying to solve and to assessing the arguments for their various positions. Primary readings are from the original sources in translation
Fall PHIL0350 S01 15053 MWF 12:00-12:50(12) (J. Broакes)

**PHIL 0360. Early Modern Philosophy.**
An introduction to central themes in Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. Major topics include: reason, experience, and knowledge; substance and the nature of the world as it really is; induction, causation, and the origin of our ideas; skepticism, realism, and idealism. Connections are made with the scientific revolution of the 17th century
Spr PHIL0360 S01 24408 MWF 10:00-10:50(03) (L. Larmore)

**PHIL 0500. Moral Philosophy.**
A systematic examination of the main alternative normative moral theories: consequentialism; moral rights; moral duties; moral virtues. Focuses on the principal issues in the formulation of the different theories, on the main points of conflict between them, and on the critical evaluation of each. Readings are drawn mainly from contemporary work in moral philosophy
Spr PHIL0500 S01 24513 TTh 6:30-7:50(12) (N. Arpaly)

**PHIL 0540. Logic.**
An introduction to perhaps the most fundamental tool of rational thought: deductive logic. Course begins with basic sentential logic, then moves on to deduction, quantification, and prediction. Argumentation and reasoning may also be addressed at times. No previous experience with logic or philosophy is required
Fall PHIL0540 S01 15033 MWF 2:00-2:50(07) (J. Schechter)

**PHIL 0560. Political Philosophy.**
An analytic investigation of some central problems and topics in political philosophy, including political obligation and civil disobedience, liberty, rights, equality, and democracy. Readings are drawn from recent work in the field, along with a few classics. WRIT
Spr PHIL0560 S01 24519 MWF 12:00-12:50(05) (E. Estlund)

**PHIL 0880. Ethical Themes in the Contemporary American Short Story.**
Consideration of contemporary American short stories in terms of their treatment of such philosophical themes as love, loyalty, envy, belief, despair, and charity. Focuses on themes in moral philosophy, rather than themes in social and political philosophy. WRIT
Spr PHIL0880 S01 24406 MWF 2:00-2:50(07) (F. Ackerman)

**PHIL 0990T. Paradox and Infinity.**
This course will focus on several important paradoxes that arise within philosophy and mathematics. We will use these paradoxes to investigate central issues in metaphysics, the philosophy of language, decision theory, physics, mathematics, and logic. Among the paradoxes we will discuss are Zeno's paradoxes of space, time, and motion; the paradoxes of set theory; the paradoxes of truth and reference; the sorites paradox; and paradoxes of rational action and rational belief. Enrollment limited to 20
Spr PHIL0990T S01 24416 Th 4:00-6:20(15) (J. Schechter)

**PHIL 0990V. Current Questions About Rational Belief.**
We'll study some "hot topics" in epistemology. Some possible questions: (1) What’s the relationship between rational belief and logic? (2) Is belief best thought of as all-or-nothing, as coming in gradations, or both? (3) Can the same evidence support divergent belief-states? (4) Is rational belief completely determined by evidence, or also by values or practical interests? (5) Are graded beliefs best seen as coming in precise degrees, or as more “spread-out”? (6) Can I have rational beliefs I know are denied by others just as intelligent, unbiased, well-informed, etc., as I am? Enrollment limited to 20 juniors and seniors
Fall PHIL0990V S01 15037 Th 4:00-6:20(15) (D. Christensen)

**PHIL 0991C. Reasons and Ought.**
Contemporary philosophical problems of the fundamental deontic concepts. Topics will include: ought implies can, ‘buckpassing’ accounts of value, narrow and wide scope requirements, subjective and objective reasons (and ought). Enrollment limited to 20
Spr PHIL0991C S01 24551 M 3:00-5:20(13) (J. Dreier)

**PHIL 0991E. Self and Others.**
The seminar will examine various topics relating to the experience of being seen, including shame, alienation, authenticity, the development and disruption of identity and of a sense of self, and forms of social participation. We will read both historical and contemporary works from philosophy (including Rousseau, Diderot, Hegel, Sartre, Velleman, Calhoun, and others), from psychiatry (including Winnicott, Laing, and others), as well as from social psychology. Enrollment limited to 20
Spr PHIL0991E S02 24523 W 3:00-5:20(14) (B. Register)
PHIL 0991F. Utopianism and Political Philosophy.
Might even morally perfect people require government? Could justice require certain arrangements even if these are highly unrealistic? Whether political philosophy must be "realistic" and in what ways is a traditional concern, and recently has become a hot topic again. In this course, we will study the family of questions about realism and utopianism in political philosophy. Authors will include small amounts of Plato, Machiavelli, Hobbes, and Rousseau, as well as more extensive study of contemporary philosophers John Rawls, G. A. Cohen, Amartya Sen, and others. The course is intended for seniors, though juniors may ask for permission. Enrollment limited to 20
Fall PHIL0991F S01 15265 W 3:00-5:20(14) (D. Estlund)

PHIL 1290. Kant's Practical Philosophy.
A study of Kant's main writings in moral and political philosophy. Topics include Kant’s conception of autonomy, the formulations of the moral law, the difference between freedom as the fundamental value of his moral philosophy and his metaphysics of free will, and the foundations of his political philosophy in his moral philosophy. Writing assignments include a midterm and a final paper
Fall PHIL1290 S01 15705 MWF 2:00-2:50(07) (P. Guyer)

PHIL 1400. Ethics in the Novel.
Consideration of novels in terms of their treatment of such philosophical themes as death, courage, faith, betrayal, responsibility to others, and mercy. Focuses on themes in moral philosophy rather than themes in social and political philosophy. Half of the course deals with Malory, the other half with contemporary American novels. No pre-requisites. WRIT
Fall PHIL1400 S01 15042 TTh 2:30-3:50(11) (F. Ackerman)

PHIL 1520. Consciousness.
Topics will include: forms of consciousness, physicalist and representationalist theories of qualia, pain and other bodily sensations, emotional experience, conscious thought, higher order representation theories of consciousness, self-representation theories, global workspace theories, blindsight and related phenomena, and the roles of attention and working memory in perceptual consciousness
Fall PHIL1520 S01 24644 TTh 2:30-3:50(11) (C. Hill)

PHIL 1590. Philosophy of Science.
Some very general, basic questions concerning science. Can evidence justify belief in theories which go beyond the evidence? What is the nature of good scientific reasoning? Is there a single scientific method? What is a scientific explanation? Does science reveal truths about unobservable reality, or merely tell us about parts of the world we can measure directly? WRIT
Fall PHIL1590 S01 15054 MWF 11:00-11:50(04) (D. Christensen)

PHIL 1600. Philosophy of Law.
Philosophical examination of the chief classical and contemporary theories of the nature and function of law. Topics include the definition of law, the nature of legal systems, the logic of legal reasoning, the analysis of basic legal conceptions (e.g., of right and duty), legal rules and principles, law and justice, and law and morality. WRIT
Fall PHIL1600 S01 15055 TTh 10:30-11:50(09) (J. Dreier)

PHIL 1640. The Nature of Morality.
Investigates major theories and issues concerning the nature of moral value. Readings from 20th-century authors. Issues include naturalism, supervenience, moral motivation, subjective/objectivity of value, skepticism, moral relativism, and moral realism
Fall PHIL1640 S01 24409 MWF 11:00-11:50(04) (J. Dreier)

PHIL 1650. Moral Theories.
A systematic examination of the main alternative normative moral theories: consequentialism; moral rights; moral duties; moral virtues. Focuses on the principal issues in the formulation of the different theories, on the main points of conflict between them, and on the critical evaluation of each. Readings are drawn mainly from contemporary work in moral philosophy
Fall PHIL1650 S01 15036 TTh 6:30-7:50(14) (N. Arpaly)

PHIL 1660. Metaphysics.
Selections from the following topics: causation and determinism, identity and persistence, including personal identity, necessity and possibility, essence and essentialism, freedom and agency, ontology, substances and events, the nature of time, realism and antirealism. Prerequisite: three courses in philosophy
Spr PHIL1660 S01 24410 TTh 2:30-3:50(11) (J. Broackes)

PHIL 1710. 17th Century Continental Rationalism.
The course will focus on Descartes’s "Rules for the Direction of Mind" and Spinoza’s "Ethics". The theme will be the relation between reason and reality, and considerable attention will also be given to two 20th century works that carry on a rationalist approach — Ernst Cassirer’s "Substance and Function" and Thomas Nagel’s "The View from Nowhere"
Fall PHIL1710 S01 15043 W 3:00-5:20(14) (C. Lamore)

PHIL 1750. Epistemology.
This course provides a survey of central issues in contemporary epistemology. We will discuss the nature of knowledge, justification, and rationality. Topics include: difficulties with the traditional analysis of knowledge, skepticism about the external world, the nature of empirical justification, the problem of induction, and the epistemology of the a priori. WRIT
Fall PHIL1750 S01 24412 TTh 1:00-2:20(10) (D. Christensen)

PHIL 1810B. Expressivism.
Expressivism is a theory of normative language according to which the function of normative sentences is to express states of mind other than beliefs, desires, plans, preferences. After a brief introduction to the eighteenth and nineteenth century ancestors of contemporary expressivism, we examine the main problems and the theoretical attempts to solve them, including Circularity, Embedding, Centered Norms, Fallibility, Wishful Thinking, Negation. We’ll finish with an examination of quasi-realism and some metametaethics.
Prerequisite: PHIL 1640
Fall PHIL1810B S01 15171 TTh 2:30-3:50(11) (J. Dreier)

PHIL 1830. Twentieth-Century Analytic Philosophy.
This course will cover major philosophers and movements of the 20th century philosophy in the analytic tradition, from the early ground-breaking works of Frege, Russell, and Wittgenstein through Logical Positivism, "ordinary language" philosophy, Quine, and the later developments. Philosophical issues discussed concern philosophy of language, metaphysics, epistemology, philosophy of science, ethics, and the nature and possibility of philosophy
Spr PHIL1830 S01 24414 TTh 1:00-2:20(10) (J. Schechter)

PHIL 1840. Twentieth-Century Continental Philosophy.
The course will focus on the main figures of the German tradition—Husserl, Heidegger, Cassirer, Gadamer, Adorno, Habermas, and Tugendhat, with emphasis on their efforts to rethink such key concepts as consciousness, history, reason, and the self. Some attention will be paid to points of intersection with German-language philosophers standards considered "non-Continental"—Frege, Wittgenstein, and the Vienna Circle
Fall PHIL1840 S01 15039 TTh 1:00-2:20(10) (C. Lamore)

PHIL 1860A. Topics in Logic: Incompleteness.
Gödel’s two incompleteness theorems are among the most important results in the history of logic. We will study these results, and explore related topics, by working through some of the classic papers on the subject. Authors to be read include Gödel, Tarski, Feferman, and Visser. Prior exposure to logic at the level of Phil 1630 or 1880 is preferred but not absolutely necessary, though strong mathematical skills are required in particular, at what they have had to say about the Liar Paradox
Spr PHIL1860A S01 24415 MWF 1:00-1:50(03) (J. Arndt)

Modern aesthetics emerged in the eighteenth century at the intersection of different disciplines, disciplines, cultures, and European nations. Contributors to the new field came not only from academic philosophy but also from the arts, literature, history, theology, and other fields. Aesthetics was thus and remains primary among interdisciplinary disciplines. Readings for this course will be drawn from British, German, and French authors as Shaftesbury, Du Bos, Addison, Hutcheson, Hume, Burke, Kames, Diderot, Mendelssohn, Lessing, Kant, Schiller, and Herder. Enrollment limited to 25 juniors, seniors, and graduate students
PHIL 1990. Independent Studies. An elective for students with at least six previous courses in philosophy. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

PHIL 2020G. The Mind-Body Problem: Emergence vs. Reduction. Could consciousness – more broadly, mentality – be an "emergent" property of the brain, arising out of neural processes and yet physically inexplicable and irreducible? There is also the associated thesis of "downward causation": Minds, having emerged from the brain, project their causal powers downward, on the brain and other physical systems. The doctrine of emergence, born in the late 19th century England, continues to exert considerable attraction on philosophers and scientists alike. We will begin with the classic works of C. Lloyd Morgan, C.D. Broad, Roger Sperry and others, and then take up current debates pro and con. Enrollment limited to 20 graduate students. S/NC

PHIL 2030A. Moral Psychology. We all have our notions of good people, bad people, and ordinary people, but reality tends to defy these concepts. Many otherwise "nice", family loving, church going people voted for Hitler. On the other hand, people with stupid or even evil views about morality sometimes turn out to be a lot better "in practice" than their smart counterparts who know Kant by heart. The same person may be very honest with her husband but very dishonest with IRS, brave in battle but scared of public speaking. In this class we shall explore this complexity, touching upon topics like rationality, free will, weak will, character, and love. We'll look at attempts by contemporary philosophers to find some method in the mess. Undergraduates require instructor permission to enroll

PHIL 2040I. Parfit on What Matters. The seminar will focus on Derek Parfit's "On What Matters", one of the most significant works of ethical theory in recent years. Enrollment limited to 20 graduate students. S/NC

PHIL 2080B. The Reception of Kant's Ethics. This course will study the response to Kant's ethics from its immediate reception to the present and its impact on the history of moral philosophy in general. Readings will include selections from Schiller, Fichte, Hegel, Schopenhauer, Nietzsche, T.H. Green, Prichard and Ross, H.J. Paton, Rawls and Habermas, and some followers of the latter two. Course assignments will include a seminar presentation and research paper. S/NC

PHIL 2080C. Realism, Idealism, and Modernity I: From Early Modernity through German Idealism. Debates between realism and idealism are central to modernity. The opposition between them might seem straightforward, realism being the philosophy of the scientific worldview, idealism the philosophy of more traditional religion and morality. But sometimes idealism has been the philosophical basis for modern science and moral autonomy, and realism the basis for more traditional worldviews. The philosophical debate between realism and idealism is thus part of the larger struggle over science, religion, morality and politics in modern culture. This course will begin a two-semester study of this complex dialectic from the seventeenth to the twentieth centuries. Enrollment limited to 20 graduate students

PHIL 210F. Locke and Human Understanding. We will be studying Locke's "Essay Concerning Human Understanding" with recent critics and commentators. Topics will include: qualities, substance, mind and personal identity, language, human knowledge and its limits. S/NC

PHIL 210J. Philosophy of Language. Spr PHIL210J S01 25460 W 3:00-5:20(14) (R. Heck)

PHIL 2150G. Aristotle's Metaphysics. No description available

PHIL 2160F. Ethics. No description available

PHIL 2190C. Aristotle and the Mind/Body Problem. The aim of this seminar series is to propose and examine a distinctive interpretation of Aristotle’s discussion in De Anima of the emotions, desire, various kinds of perception and thought and to consider its philosophical plausibility. We'll test the following hypothesis: that Aristotle offers a way of understanding the emotions, desire, and perception as inextricably psycho-physical phenomena which (i) undercuts the traditional mind-body question as understood by most post-Cartesian philosophers and (ii) is of continuing philosophical interest

PHIL 2190D. Metametaphysics. In the recent literature there has been a great deal of interest in "metametaphysical" questions about the nature of metaphysics. Is metaphysical truth in some sense relative? Are metaphysical controversies merely a matter of choosing a language? What sorts of arguments are relevant to justifying a metaphysical view? This course will consider a number of metametaphysical issues, with special attention to the question: Are certain linguistic or conceptual systems metametaphysically superior to other systems, even when all of these systems produce statements that are equivalent in their truth conditions? Roughly put, Sider answers yes; Hirsch answers no. We’ll examine this debate. Enrollment limited to 20

PHIL 2200. Graduate Proseminar. Will cover classics of philosophy from the end of the 19th century to the end of the 20th; including ethics as well as metaphysics, epistemology and philosophy of language

PHIL 2450. Exchange Scholar Program. Spring

PHIL 2800. Dissertation Workshop. No description available. Undergraduates require instructor permission to enroll

PHIL 2970. Preliminary Examination Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

PHIL 2980. Research in Philosophy. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

PHIL 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

PHIL XLIST. Courses of Interest to Philosophy Concentrators. Fall 2012

There are many courses that look at philosophers or philosophical questions in other departments, including Africana Studies, Classics, Cognitive and Linguistic Sciences, French Studies, German Studies, Judaic Studies, Mathematics, Modern Culture and Media, Political Science, and Religious Studies. They include:

- Classics
- CLAS 1750D Philosophy of Socrates
- ENGL 1900E Aesthetics and Politics
- Religious Studies
- RELS 0830 Religion, Reason, and Ethics from Kant to Nietzsche
- RELS 1370C David Hume and Religion

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Physics

PHYS 0030. Basic Physics. Survey of mechanics, electricity, magnetism, optics, and modern physics for concentrators in sciences other than physics—including premed students or students without prior exposure to physics who require a less rigorous course than PHYS 0050, 0060. Employs the concepts of elementary calculus but little of its technique. Lectures, conferences, and laboratory. Six hours of attendance. Recommended: MATH 0090 or 0100.

PHYS 0040. Basic Physics. See Basic Physics (PHYS 0030) for course description.

PHYS 0050. Foundations of Mechanics. An introduction to Newtonian mechanics that employs elementary calculus. Intended for science concentrators. Potential physics concentrators, who do not have adequate preparation for PHYS 0070, may enroll, but are urged to continue with PHYS 0160 rather than PHYS 0060. Lectures, conferences, and laboratory. Six hours of attendance. Recommended: MATH 0090 or MATH 0100.

PHYS 0060. Foundations of Electromagnetism and Modern Physics. An introduction to the principles and phenomena of electricity, magnetism, optics, and the concepts of modern physics. Recommended for those who wish to limit their college physics to two semesters but seek a firm grounding in the subject, including but not limited to those with some previous knowledge of physics. Lectures, conferences, and laboratory. Six hours of attendance. Prerequisite: PHYS 0050. Recommended: MATH 0100.

PHYS 0070. Analytical Mechanics. A mathematically more rigorous introduction to Newtonian mechanics than PHYS 0050. For first-year students and sophomores who have studied physics previously and have completed a year of calculus. Lectures, conferences, and laboratory. Six hours of attendance. Prerequisites: high school physics and calculus or written permission.

PHYS 0112. Alien Worlds: The Search for Extra-Solar Planets and Extraregional Life. The course will cover the significant developments in the detection and characterization of extra-solar planetary systems in the past 20 years. We will study the astrophysics of planetary system formation, the techniques for detecting planets, the properties of the planets discovered so far, and the prospects for future discoveries, with an emphasis on the search for "Earth-analogues" and the implications for astrobiology. Enrollment limited to 20 first year students. FYS.

PHYS 0114. The Science and Technology of Energy. Energy plays fundamental roles in society. Its use underlies improvements in the living standard; the consequences of its use have a significant impact on the Earth’s climate; its scarcity in certain forms is a source of insecurity and political conflict. This course will introduce the fundamental laws that govern energy and its use. The physical concepts to be covered include mechanical energy, thermodynamics, the Carnot cycle, electricity and magnetism, quantum mechanics, and nuclear physics. The technological applications include wind, hydro, and geothermal energy, engines and fuels, electrical energy transmission and storage, solar energy and photovoltaics, nuclear reactors, and biomass. Enrollment limited to 20 first year students. FYS.

PHYS 0160. Introduction to Relativity and Quantum Physics. A mathematically rigorous introduction to special relativity and quantum mechanics. The second course in the three-semester sequence (PHYS 0470 being the third) for those seeking the strongest foundation in physics. Also suitable for students better served by an introduction to modern physics rather than electromagnetism. Lectures, conferences, and laboratory. Six hours of attendance. Prerequisite: PHYS 0070 or 0050. Recommended: MATH 0180 or 0200.

PHYS 0220. Astronomy. An introduction to basic ideas and observations in astronomy, starting with the observed sky, coordinates and astronomical calendars and cycles, the historical development of our understanding of astronomical objects. Particular emphasis is placed on the properties of stars, galaxies, and the Universe as a whole, including the basic ideas of cosmology. The material is covered at a more basic level than PHYS 0270. Knowledge of basic algebra and trigonometry is required, but no experience with calculus is necessary. The course includes evening laboratory sessions.

PHYS 0250. Introduction to Electricity and Magnetism. Electric and magnetic fields. Motion of charged particles in fields. Electric and magnetic properties of matter. Direct and alternating currents. Maxwell’s equations. Laboratory work. Prerequisites: PHYS 0040, 0060, or 0160; and MATH 0180, 0200 or 0350. Labs meet every other week.


PHYS 1100. Introduction to General Relativity. An introduction to Einstein’s theory of gravity, including special relativity, spacetime curvature, cosmology and black holes. Prerequisites: PHYS 0500 and MATH 0520 or MATH 0540 or equivalent, or permission of the instructor. Recommended: PHYS 0720. Offered every other year.
PHYS 1100. Introduction to Cosmology.
The course presents an introduction to the study of the origin, evolution and contents of the Universe. Topics include the expansion of the Universe, relativistic cosmologies, thermal evolution, primordial nucleosynthesis, structure formation and the Cosmic Microwave Background. Prerequisites: PHYS 0160, MATH 0190, MATH 0200, or MATH 0350, or instructor permission
Fall PHYS1100 S01 23893 TTh 1:00-2:20(10) (I. Dell'antonio)

PHYS 1280. Quantum Mechanics A.
A unified treatment of quanta, photons, electrons, atoms, molecules, matter, nuclei, and particles. Quantum mechanics developed at the start and used to link and explain both the older and newer experimental phenomena of modern physics. Prerequisites: PHYS 0500 and 0560; and MATH 0520, 0540 or PHYS 0720; or approved equivalents
Fall PHYS1280 S01 15587 TTh 1:00-2:20(10) (R. Gaitskell)

PHYS 1410. Quantum Mechanics B.
See Quantum Mechanics A, (PHYS 1410) for course description
Spr PHYS1420 S01 23895 MW 9:00-9:50(02) (S. Ying)

PHYS 1510. Advanced Electromagnetic Theory.
Maxwell’s laws and electromagnetic theory. Electromagnetic waves and radiation. Special relativity. Prerequisites: PHYS 0470; and MATH 0180, 0200, or 0350; or approved equivalents
Fall PHYS1510 S01 14496 TTh 2:30-3:50(11) (D. Stein)

PHYS 1530. Thermodynamics and Statistical Mechanics.
The laws of thermodynamics and heat transfer. Atomic interpretation in terms of kinetic theory and elementary statistical mechanics. Applications to physical problems. Prerequisites: MATH 0180 or 0200 or 0350. Corequisite: PHYS 1410
Fall PHYS1530 S01 14497 TTh 10:30-11:50(09) (M. Dorca)

PHYS 1560. Modern Physics Laboratory.
A sequence of intensive, advanced experiments often introducing sophisticated techniques. Prerequisites: PHYS 0470, 0500 and 0560; and MATH 0520, 0540 or PHYS 0720; or approved equivalents. WRIT
Spr PHYS1560 S01 23896 TTh 9:00-10:20(08) (X. Ling)

PHYS 1600. Computational Physics.
This course provides students with an introduction to scientific computation, primarily as applied to physical science problems. It will assume a basic knowledge of programming and will focus on how computational methods can be used to study physical systems complementing experimental and theoretical techniques. Prerequisites: PHYS 0070, 0160 (or 0050, 0060) and 0470 (or ENGN 0510); MATH 0180 or 0200 or 0350; or the ability to write a simple computer program in Fortran, Matlab, C or C++. WRIT
Spr PHYS1600 S01 23897 TTh 1:00-2:20(10) (R. Pelcovich)

PHYS 1610. Biological Physics.
Introduction on structures of proteins, nucleotides, and membranes; electrostatics and hydration; chemical equilibrium; binding affinity and kinetics; hydrodynamics and transport; cellular mechanics and motions; biophysical techniques including sedimentation, electrophoresis, microscopy and spectroscopy. Suitable for undergraduate science and engineering majors and graduate students with limited background in life science. Prerequisites: MATH 0180
Fall PHYS1610 S01 15862 TTh 2:30-3:50(11) (X. Ling)

PHYS 1890. Undergraduate Research in Physics.
Designed for undergraduates to participate, individually or in small groups, in research projects mentored by the physics faculty. Students must have taken one year of college level physics. An average of 8 to 10 hours per week of guided research is required as are weekly meetings with the supervising faculty member. Students should consult with faculty to find a mutually agreeable project, then apply and obtain permission to enroll. Section number varies by instructor (students must register for the appropriate section)

PHYS 1990. Senior Conference Course.
Preparation of thesis project. Required of candidates for the degree of bachelor of science with a concentration in physics. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

PHYS 2010. Techniques in Experimental Physics.
No description available
Fall PHYS2010 S01 14498 Th 4:00-5:20(15) (G. Xiao)
Spr PHYS2010 S01 23898 W 2:00-4:50(07) (R. Gaitskell)

PHYS 2030. Classical Theoretical Physics I.
No description available
Fall PHYS2030 S01 14499 TTh 9:00-10:20(08) (J. Marston)

PHYS 2040. Classical Theoretical Physics II.
No description available
Spr PHYS2040 S01 23899 TTh 10:30-11:50(09) (J. Kosterlitz)

PHYS 2050. Quantum Mechanics.
No description available
Fall PHYS2050 S01 14500 MW 10:00-10:50(03) (S. Ying)

PHYS 2060. Quantum Mechanics.
No description available
Spr PHYS2060 S01 23900 MW 10:00-10:50(03) (D. Feldman)

PHYS 2070. Advanced Quantum Mechanics.
No description available
Fall PHYS2070 S01 14501 TTh 1:00-2:20(10) (G. Guralnik)

PHYS 2140. Statistical Mechanics.
No description available
Spr PHYS2140 S01 24939 MW 12:00-12:50(05) (T. Powers)

PHYS 2170. Introduction to Nuclear and High Energy Physics.
No description available
Spr PHYS2170 S01 23902 MW 1:00-1:50(06) (D. Lowe)

PHYS 2280. Astrophysics and Cosmology.
This course serves as a graduate-level introduction to modern cosmology, including current topics of research on both observational and theoretical fronts. Topics include relativistic cosmology, inflation and the early Universe, observational cosmology, galaxy formation. Prerequisites for undergraduates: PHYS 1280 and PHYS 1530
Spr PHYS2280 S01 24947 MW 2:00-2:50(07) (S. Kouyiappas)

PHYS 2300. Quantum Theory of Fields I.
No description available
Spr PHYS2300 S01 23903 TTh 2:30-3:50(11) (A. Jevicki)

PHYS 2320. Quantum Theory of Fields II.
No description available. Instructor permission required
Fall PHYS2320 S01 14502 TTh 10:30-11:50(09) (A. Jevicki)

PHYS 2340. Group Theory.
Offered every other year
Spr PHYS2340 S02 25461 MW 2:00-2:50(07) (G. Guralnik)

PHYS 2410. Solid State Physics I.
No description available
Spr PHYS2410 S01 14503 MW 12:00-12:50(12) (H. Masis)

PHYS 2420. Solid State Physics II.
No description available
Spr PHYS2420 S01 23904 MW 1:00-1:50(06) (J. Marston)

PHYS 2450. Exchange Scholar Program.

PHYS 2470. Advanced Statistical Mechanics.
No description available
Fall PHYS2470 S01 14504 MF 2:00-3:20(07) (D. Feldman)

PHYS 2710. Seminar in Research Topics.
Instruction via reading assignments and seminars for graduate students on research projects. Credit may vary. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

PHYS 2711. Seminar in Research Topics.
See Seminar In Research Topics (PHYS 2710) for course description. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course
PHYS 2970. Preliminary Examination Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.

PHYS 2980. Research in Physics. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

PHYS 2981. Research in Physics. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

PHYS 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

Political Science

POLS 0010. Introduction to the American Political Process. This course is designed to be an introduction to the American political process, broadly defined. We will cover topics including but not limited to: Constitution, Federalism, Federal Budget, Congress, Presidency, Bureaucracy, Judiciary, Civil Rights, Civil Liberties, Public Opinion, Media, Interest Groups, Political Parties, Campaigns, Elections, and Participation. Spr POLS0100 S01 24135 MWF 10:00-10:50(03) (W. Schiller)

POLS 0110. Introduction to Political Thought. What is justice? What is freedom? What is the basis of political authority? What is the nature of the best regime? Why should we obey the laws? When may we legitimately resist? These and other perennial questions of political life are explored. Readings include Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Marx, and J.S. Mill. WRIT. Fall POLS0110 S01 14840 TTh 9:00-10:20(08) (J. Tomasi)

POLS 0200. Introduction to Comparative Politics. Introduces students to the sub-field of comparative politics or politics within states. Topics include types of regimes (i.e., democratic, authoritarian, totalitarian); transitions to democracy and the collapse of democratic regimes; revolutionary and ethnic challenges to the state; globalization. The course also pays attention to modes of analysis in comparative politics. Cases will be drawn from various regions, including Western and Eastern Europe, Latin America, the Middle East, and Africa. Spr POLS0200 S01 24136 MWF 11:00-11:50(04) (J. Baum)

POLS 0220. City Politics. Bosses, reformers, states, bureaucrats, politicians, the poor, the homeless, and the citizen. An introduction to the major themes of urban politics. Spr POLS0220 S01 24137 TTh 10:30-11:30(09) (J. Morone)

POLS 0400. Introduction to International Politics. This course provides a basic introduction to the central theoretical perspectives and debates in international relations. The second part of the course applies these models to current problems in international relations, including environmental degradation, pandemic disease, human trafficking, transnational organized crime, and terrorism. Fall POLS0400 S01 14841 MWF 11:00-11:50(04) (R. McDermott)

POLS 0500. Foundations of Political Analysis. This course provides an introduction for undergraduate students to the methods that political scientists (and other social scientists) use to generate and answer questions about the world around us. This course will provide you with the tools to evaluate critically social science research, and it will improve your ability to pose and answer research questions of your own. Both quantitative and qualitative approaches are covered. Not open to first year students. Fall POLS0500 S01 14842 MWF 10:00-10:50(18) (J. O'Mahoney)

POLS 0820B. The Politics of Leadership. Many people are placed in leadership positions but most never become real leaders. What separates leaders and non-leaders? What are the characteristics of a real leader? The course will focus on American politics and investigate two institutional arenas: the presidency and congress. Several case studies will be investigated where people use different skills to perform leadership roles. Among the factors to be considered are; personal qualities, prior preparation, selection of a challenge and the use of rhetorical skills. Enrollment limited to 20 first year students. FYS Spr POLS0820B S01 25962 M 3:00-5:20(15) (R. Cobb)

POLS 0820D. Freedom. What is freedom? Is it important? How do we know? What should we do about it? We will analyze the different conceptions of liberty - liberal egalitarian, classical liberal, Marxist, and fascist views. We will determine how the various aspects of freedom - political, personal, psychological, economic, and moral - are complementary, and determine what sorts of institutions promote or undermine these aspects. Enrollment limited to 20 first year students. FYS Fall POLS0820D S01 16348 F 3:00-5:20(15) (J. Bandoch)

POLS 1010. Topics in American Constitutional Law. This course will examine major constitutional controversies within the context of wider debates in political and legal theory. Readings from Supreme Court cases and prominent texts in political/legal theory. Each year we will focus on a different theme and set of constitutional issues. Topics might include a mix of federalism, separation of powers, privacy, free speech, and abortion. We will also focus how political and legal theory helps us to consider these topics in tandem. Spr POLS1010 S01 24138 MWF 2:00-2:50(07) (C. Brettschneider)

POLS 1030. Modern Political Thought. What is justice? In a just society how would wealth be distributed? Would such distribution respect property rights? Does the state have the exclusive right to punish and if so why? Should the family be regarded as beyond justice? Is there a tension between democratic self-governance and freedoms from coercion? With an emphasis on both lectures and Socratic dialogue, this course is designed to engage students in conversations with the most important work in modern and contemporary political thought and to get them to engage with the most fundamental questions faced by our polity. We will draw on canonical modern and contemporary writers to see understand the most important debates of the modern period and as importantly to help us dig deep into fundamental questions of justice and legitimacy. Readings from Hobbes, Locke, Rousseau, Marx, Rawls, Okin, Cohen and others. Some prior work in political theory or philosophy suggested. Prerequisite: POLS 0110 or instructor permission. Spr POLS1030 S01 24139 MWF 1:00-1:50(06) (C. Brettschneider)

POLS 1120. Campaigns and Elections. This course is designed to survey both historical and contemporary elections at both the congressional level, emphasizing the 2012 elections. Topics include campaigns, parties, candidates, voting behavior, public opinion, and the media. Fall POLS1120 S01 14831 MW 6:30-7:50(18) (M. Tesler)

POLS 1150. Prosperity: The Ethics and Economics of Wealth Creation. What is prosperity? Whom does prosperity benefit? Which institutions and attitudes produce prosperity? What is the relation of prosperity to other values such as efficiency, happiness, equality, fairness, religious faith or personal freedom? This course explores the problem of prosperity from a variety of disciplinary perspectives: philosophical, economic, historical, religious, and literary. No prerequisites. All students welcome; first and second year students especially encouraged. Fall POLS1150 S01 14844 TTh 2:30-3:50(11) (J. Tomasi)

POLS 1160. Constitutional Law: Governmental Powers. This course examines governmental powers under the United States Constitution, addressing the powers of Congress, the President, and the courts, as well as the relationship between the national and state governments. The primary reading materials will be leading Supreme Court cases, supplemented by additional reading materials on history and legal theory. The course will consider the role of the courts in enforcing constitutional principles in a democratic system, as well as theories of constitutional interpretation and constitutional change. Fall POLS1160 S01 16270 MWF 1:00-1:50(06) (S. Calabresi)

POLS 1210. Latin American Politics. Focuses on political and economic transformation in contemporary Latin America. Special attention is given to the processes of market-oriented economic reforms and democratization that have swept the region during...
the last twenty-five years. Includes in-depth country case studies where key themes can be discussed and elaborated.

Spr POLS1210 S01 24142 TTh 2:30-3:50(11) (R. Snyder)

POLS 1240. Politics, Markets and States in Developing Countries.

How can we explain fundamental differences in economic performance and policy across developing countries in the face of Globalization? Why are some countries praised as economic "miracles," yet others seem mired in inescapable stagnation? This course addresses these questions by introducing the basic topics, concepts, and theoretical approaches that comprise the field of political economy of development. The course draws on case studies from Asia, Africa, and Latin America.

Fall POLS1240 S01 14845 MWF 2:00-2:50(07) (R. Snyder)

POLS 1260. Maps and Politics.

How do maps affect politics, and vice versa? Maps fundamentally shape the way that we see our world and how we interact politically, economically, and socially, but maps are also shaped by political actors, interests, and institutions. This course will consider historical and contemporary issues that link maps and politics, including the connections between mapping and nation-states, colonialism, warfare, democratic politics, and indigenous rights. The course is suitable for all students with an interest in the topic.

Fall POLS1260 S01 16302 TTh 6:30-7:50(14) (J. Branch)

POLS 1265. Political Institutions of East Asian Democracies.

Will discuss present-day government and politics of South Korea, Taiwan and the Philippines as well as the decades leading up to democratic transitions in these countries. Will discuss economic miracles in Japan and the four "Asian tigers," and democratization in these high-growing regions. Throughout, reference will be made to similarities and differences – and implications thereof – between the "rules of the game" in these countries and in other new democracies. We will focus on several areas of policy that have been at the center of political science and economics debates concerning policy making in Korea, Taiwan and the Philippines.

Fall POLS1265 S01 16435 TTh 6:30-7:50(14) (J. Baum)

POLS 1280. Politics, Economy and Society in India.

This course will concentrate on three aspects of the "Indian experience": democracy, ethnic and religious diversity, and political economy. With a brief exception, India has continued to be democratic since 1947. No developing country matches India's democratic record. Second, remarkable cultural, ethnic and religious diversity marks India's social landscape, and influences its politics. Third, Indian economy has of late been going through a serious economic transformation, drawing comparisons with China. Is the comparison valid?

Spr POLS1280 S01 24172 TTh 1:00-2:20(10) (A. Varshney)


Over 50 million Latinos reside in the United States today, making them the largest minority group in the country. The current population size, projected growth trajectory, and population density of Latinos in many political battleground states have made this group a favored topic among politicians, interest groups and mass media. Yet, what do we really know about the politics and opinions associated with the diverse and expanding Latino population? How are Latinos incorporated into American political life? What difference does it make to be of Latino descent in the U.S.? This course presents an in-depth examination of this important population.

Fall POLS1300 S01 16362 TTh 2:30-3:50(11) (H. Silber Mohamed)

POLS 1390. International Organization and World Politics.

Examines the institutions and the processes by which states and other actors seek to provide "governance" in the international system. The class explores the history of, and various theoretical perspectives on, the role of international organizations in the state system. It also considers their roles in a range of political, military, economic, environmental, and humanitarian issues.

Spr POLS1390 S02 25752 MWF 12:00-12:50(05) (J. O'Mahoney)

POLS 1415. Classics of Political Economy.

Traces the most important classical statements of political economy through consideration of the major contributions to the "political" study of the economy from the seventeenth century to the present; Locke, Ricardo, Smith, Rousseau, Mill, Bentham, Marx, Mill, Marshall, Keynes, Hayek, Friedman, and Lucas. By mapping the parallel evolution of the liberal/capitalist economy and the liberal-democratic notion of the individual, both a product of and a producer within this economy, the course will demonstrate the political nature of economics and the economic bases of politics. First year students require instructor permission. Not open to students who have taken POLS 1822B.

Spr POLS1415 S01 24825 TTh 2:30-3:50(11) (M. Blyth)

POLS 1420. Money and Power in the International Political Economy.

Examines how the interaction of states and markets create distinct global monetary and political orders. Class analyzes the shift from the classical liberal Gold Standard through the Post-War Bretton Woods arrangements through to the globalized IPE of today.

Fall POLS1420 S01 14846 TTh 10:30-11:50(09) (M. Blyth)

POLS 1570. International Law (INTL 1700).

Interested students must register for INTL 1700 S01 (CRN 16365).

POLS 1600. Political Research Methods.

Introduction to basic research methods in political science. Topics include descriptive and inferential statistics, sampling theory and measurement. Emphasis placed on understanding concepts of statistics and how statistics apply to the "real world" political issues. Enrollment limited to 40 sophomores, junior, and senior Political Science and Public Policy concentrators.

Spr POLS1600 S01 24166 TTh 1:00-2:20(10) (S. Moffitt)

POLS 1780. Use of Symbols in American Politics.

What do a flag, Martin Luther King, Jr. and socialized medicine have in common? They are all political symbols that have produced a strong public response. The political process is complicated beyond the understanding of most. But it becomes manageable when converted into sets of conflicting symbols. How does the public learn about political symbols? What is their role in the policy making process? Three types of symbols will be considered: community, regime and situational symbols. Course coverage limited to American domestic politics. Prerequisite: POLS 0010. Not open to first-year students.

Spr POLS1780 S01 25859 MW 8:30-9:50(02) (R. Cobb)

POLS 1821I. Issues in Democratic Theory.

This seminar engages contemporary issues in democratic theory. Topics explored include the meaning of democracy (and the political consequence of different answers to that question); representation and citizenship; democracy and rights, (free speech, religious freedom, and privacy); democracy and judicial review; deliberative democracy. We will read works of political theory and United States Supreme Court cases. Enrollment limited to 20 juniors and seniors concentrating in Political Science. WRIT

Fall POLS1821I S01 14853 M 3:00-5:20(13) (C. Brettschneider)

POLS 1821J. Rhode Island Government and Politics.

Students participate in an approved internship in Rhode Island State Politics. Students will be expected to work 8-10 hours a week in an office of state government and, at the end of the semester, reflect on what they've learned. Enrollment limited to 20 senior Political Science concentrators. Instructor permission required.

Spr POLS1821J S01 25165 F 3:00-5:20(15) (S. Krause)

POLS 1821O. Politics of Economic Development in Asia.

It is accepted that development is not an economic phenomenon. Political processes are tied with economic development. Does the political system affect development? Does democracy slow down economic growth? If countries embrace political freedoms and market-oriented economic reforms, should one expect both to succeed equally? Since the Second World War, an enormous amount of intellectual effort has gone into understanding these issues. Asia has been at the heart of much of this literature. Emphasis will be on China, India and South Korea. Enrollment limited to 20 juniors and seniors concentrating in Political Science or International Relations. Instructor permission required. WRIT

Fall POLS1821OS01 14856 Th 4:00-5:20(15) (A. Varshney)

POLS 1821P. Political Psychology of International Relations.

This course covers basic methods and theories in the use of political psychology to study topics in international relations. The second part of the course applies these models to particular topics, including leadership, group dynamics, and the role of emotion in decision making. Enrollment limited to 20 juniors and seniors. WRIT
POL 1821S. Women and Politics
How has the importance of gender in politics changed over time? Must women represent women? Can men also represent women? Do women and men participate politically in different ways? Why is there a persistent gender gap in political leadership? Do women campaign differently than men? What are "women's issues"? Do they affect all women equally? This course explores these and other questions, drawing on a range of literature from political science and public policy. We will also examine contemporary political debates and investigate varying ways in which the categories of gender, race and ethnicity, and other politically-relevant categories intersect. Enrollment limited to 20 juniors and seniors. WRIT

Spr POLS1821S S01 25908 F 3:00-5:20(15) (H. Silber Mohamed)

POL 1821T. Criminal Justice System
An examination of police, criminal courts, and prisons in the contemporary United States. Major topics include police discretion, plea bargaining, and theories of punishment. We will also examine the politics of crime, including federal efforts to influence these traditional state functions. Major assignments are based in the Rhode Island criminal justice system. Enrollment limited to 20 juniors and seniors concentrating in Political Science or Public Policy. Instructor permission required. WRIT

Fall POLS1821T S01 14852 W 3:00-5:20(14) (R. Cheit)

POL 1822P. Defences of Capitalism.
The moral justification for laissez-faire capitalism accepted in late eighteenth century came under attack in the nineteenth. We will examine four schools of thought that arose to defend capitalism: schools of free-market economists, Protestants and Catholics, Ayn Rand's followers, and libertarians. We will find the differences between these schools are as charged and fundamental as any between capitalism and its critics. Primary sources (including Ayn Rand's Atlas Shrugged) will provide the bulk of our reading. The course will conclude with an application of the rival theories to a few current public policy issues. Enrollment limited to 20 juniors and seniors. WRIT

Fall POLS1822P S01 16303 T 4:00-6:20(15) (J. McCaskey)

POL 1822U. War and Human Rights.
This seminar will begin by studying the rise and spread of the notion of human rights, examining some of the core debates over human rights, including their enforcement in times of war. It will then turn to the laws of war, focusing especially on the 1949 Geneva Conventions and the challenges posed to the Conventions by the rise of non-state actors wielding significant violence. Topics include child soldiers, war crimes, humanitarian intervention, torture, targeted killings, humanitarianism, and the international law of war. Enrollment limited to 20 juniors and seniors concentrating in Political Science or International Relations

Spr POLS1822U S02 25753 T 4:00-6:20(15) (J. O'Mahoney)

POL 1822X. Technology and International Politics.
This seminar examines the connections between technological change and international politics. Technologies have always been central to how states conduct war, cooperate with one another, and rule their subjects. We will consider this connection both theoretically and through a number of historical and contemporary case studies of technological changes and their relationship to international politics, including the technologies of warfare, communication, and transport. It is strongly recommended that students have taken the introductory international relations course (POLS 0400) before enrolling in this seminar. Enrollment limited to 20 juniors and seniors. WRIT

Spr POLS1822X S01 25839 Th 4:00-6:20(15) (J. Branch)

POL 1822Z. Racial Attitudes and their Impact on American Politics.
The course first documents trends and sources of change in racial attitudes. It then evaluates the debate between psychological, sociological and political explanations for opposition to racial policies. We then transition from the policy realm to the impact of racial attitudes on electoral politics. In this half of the class we will study how racial attitudes have influenced partisan and presidential politics from Reconstruction up through the present, how parties and politicians use racial appeals for electoral gain, how racial attitudes affected black candidates before Obama, and racial attitudes and their impact on American politics in the age of Obama. Enrollment limited to 20. WRIT

Spr POLS1822Z S01 25841 M 3:00-5:20(13) (M. Tesler)

POL 1823A. Constitutional Theory.
Will introduce the key theories that have been put forward in the last 100 years in Constitutional interpretation and how the Supreme Court exercises the power of judicial review. We will read and study key works by famous constitutional theorists of the past like James Bradley Thayer, Alexander Bickel, Charles Black, and John Hart Elly as well as reading the works of contemporary theorists such as Ronald Dworkin, Richard Posner, Robert H. Bork Antonin Scalia, Richard Fallon, Larry Kramer, and Jack Balkin. We will devote one week to each theorist and class participation in discussions is expected. Open to juniors and seniors concentrating in Political Science and Public Policy. Prerequisite: POLS 1160 or 1170. WRIT

Fall POLS1823A S01 16304 F 3:00-5:20(15) (S. Calabresi)

POL 1823B. Reforming the State in New Democracies.
This course analyzes the politics and reform of the administrative state in new democracies. Our general focus will be on how electoral, legislative, and bureaucratic institutions affect the nature of governance in advanced and developing democracies. We will then focus specifically on the extent to which elected politicians are able to control bureaucrats. Finally, we will turn to several policy areas— civil service reform, regulatory and administrative procedural reforms and fiscal policy— and discuss the politics of each in comparative and theoretical terms. Enrollment limited to 20 juniors and seniors. WRIT

Fall POLS1823B S01 16436 Th 4:00-6:20(15) (J. Baum)

POL 1823C. Ancient Political Thought.
What is the purpose of politics? Who should rule? What is justice? Plato and Aristotle instigated the tradition of political philosophy in the West, and our modern democracy is deeply indebted to their ideas. Yet their answers to many of the fundamental questions of politics differ dramatically from our own. Among other things, they valued virtue over personal freedom, duties over rights, and nobility of soul over equality of access. In this course we reflect critically on the value and implications of their ideas, and we evaluate our own modern political principles and practices in light of what they taught. Enrollment limited to 20.

Spr POLS1823C S01 25863 M 3:00-5:20(13) (S. Krause)

POL 1823D. War and Peace in International Society.
The decline in the frequency of interstate war and the illegality of international aggression are among the most significant changes in international relations in the last century. However, international violence has not disappeared from the world. This class charts and analyzes the changes in warmaking and peacemaking up to and through the twentieth century. How has the nature and practice of war changed? Are we entering an era of global peace? Other topics covered include mercenaries, plunder, peace treaties, and robots. Enrollment limited to 20 juniors and seniors in International Relations and Political Science.

Fall POLS1823D S01 16305 T 4:00-6:20(15) (J. O'Mahoney)

Concentrators who have given evidence of superior work in political science may be admitted to honors seminar on the basis of an application submitted in the spring of their junior year. Application and guidelines may be obtained on the Department of Political Science website. Prerequisite: Fulfillment of Methods requirement. Enrollment limited to senior Political Science concentrators. Instructor permission required

Fall POLS1910 S01 14849 W 3:00-5:20(14) (W. Schiller)

POL 1920. Senior Honors Thesis Preparation.
This course is a continuation of POLS 1910. Political Science Honors students who are completing their theses should enroll. Prerequisite: POLS 1910. Instructor permission required

Spr POLS1920 S01 24168 F 3:00-5:20(15) (W. Schiller)

POL 1970. Individual Reading and Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

POL 1971. Individual Reading and Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
POLS 2000. Strategies of Inquiry and Research Design. Introduction to research methods common in political science research. Topics include theory development, problems of explanation and causation, problem identification, research design, and other fundamentals of empirical research. Graduate students only.

Spr  POLS2000 S01 24919 W 3:30-6:00(15) (R. McDermott)


Fall  POLS2020 S01 14854 W 4:30-7:00(18) (J. Morone)

POLS 2050. Preparing the Prospectus I. This course covers selected topics in research design and methodology and is designed to help students enrolled in the Political Science PhD program to write and defend a prospectus in their third year of study. Instructor permission required.

Fall  POLS2050 S01 14855 Th 1:30-4:00(10) (J. Morone)

POLS 2051. Preparing the Prospectus II. This course covers selected topics in research design and methodology and is designed to help students enrolled in the Political Science PhD program to write and defend a prospectus in their third year of study. Prerequisite: POLS 2050. Instructor permission required.

Spr  POLS2051 S01 24173 Th 2:00-4:30(11) (J. Morone)

POLS 2060. International Relations and History. This graduate seminar considers history both as a topic and as a method of international relations scholarship, and in other subfields of political science as well. We will read and discuss works that fall at the intersection of history and international relations, on topics including the sources of interstate conflict, the origins of the nation-state, and colonialism and postcolonialism. Open to Political Science Graduate students only.

Spr  POLS2060 S01 25532 T 1:30-4:00(10) (J. Branch)

POLS 2110. Proseminar in Comparative Politics. Provides a survey of major approaches, issues, and debates in the field of comparative politics. Topics: state formation, revolutions and civil wars, ethnic conflict and nationalism, state-market relations, systems of representation, hegemony and domination, etc. Works of theoretical importance on each topic, focusing on authors’ arguments and controversies within the literature. Open to graduate students only.

Spr  POLS2110 S01 24174 F 12:00-2:30(05) (J. Baum)

POLS 2120. Proseminar in Political Theory. An overview of central debates in political theory today. Readings include contemporary writings on justice, liberalism, democratic theory, critical theory, feminism, power, multiculturalism, and citizenship and political economy. Enrollment limited to 14 graduate students in Political Science; advanced undergraduates may enroll with permission of the instructor.

Fall  POLS2120 S01 14856 M 12:30-3:00(12) (C. Brettschneider)

POLS 2150. Democratic Theory, Justice, and the Law. This course will examine contemporary and historical work in the area of democratic political and legal theory. Topics include the relationship between democracy and individual rights, deliberative vs. aggregative conceptions of democracy, the substance/procedure controversy, and the role of judicial review in a democracy. Open to graduate students only.

Spr  POLS2150 S01 25842 M 3:30-6:00(13) (C. Brettschneider)

POLS 2170. Market-Liberalism: Origins, Principles and Contemporary Applications. This course explores the relationship between economic freedom and social justice. The economic liberties of capitalism have often been said to be in tension with the moral ideal of distributive justice. What are the economic liberties of capitalism and what moral value, if any, do they have? What does a commitment to social justice require? Why are libertarian relations skeptical of social justice as a moral ideal? How do liberal conceptions of social justice compare to socialist ones? Can capitalists care about social justice? Should they? Open to graduate students concentrating in Political Science.

Spr  POLS2170 S01 24175 W 1:00-3:30(06) (J. Tomasi)

POLS 2220. Urban Politics. Covers a number of topics linked to urban politics and urban public policy. Topics include the politics of urban education, affordable housing, downtown development. Examines how state and federal policy actions have contributed to the nature of the urban condition; and how race, class and ethnicity are interwoven with urban politics and urban public policy. Graduate Students only; all others by permission only.

Spr  POLS2220 S01 24920 M 1:00-3:30(08) (M. Orr)

POLS 2240. Political Economy and Political Science. Graduate field survey of classic and contemporary political economy texts and arguments. Objective is to provide grounding for further studies. Useful for all political science subfields and related disciplines. Enrollment limited to 20 graduate students.

Fall  POLS2240 S01 16030 T 1:30-4:00(10) (M. Blyth)

POLS 2245. The International Political Economy of Global Finance. This class is intended to give graduate students a field survey of the major issues and areas in global finance. Although global finance is back in vogue since the 2008 crisis, it remains a frontier of research in mainstream political science. As such, its is an excellent area to conduct research since it remains an ‘open range’ of inquiry. The course is divided into three parts. The first part covers classic accounts. The second part focuses on the 2008 crisis. The third part discusses contributions in areas such as Risk Management, Hedge Funds, Money Laundering, Quantitative Finance, and Sovereign Debt. Enrollment limited to 14 graduate students in Political Science.

Spr  POLS2245 S01 25949 W 10:00-12:30 (M. Blyth)

POLS 2330. Politics in India. This seminar will present Indian politics in a comparative and theoretical framework. It will focus on four themes: British India and Indian Nationalism; India’s democratic experience; politics of ethnic and religious diversity; and political economy, concentrating especially on India’s economic rise. Readings include the classics of the subfield of Indian politics and political economy, but also a lot of recent scholarship. Enrollment limited to 20 graduate students.

Fall  POLS2330 S01 14857 W 2:00-4:20 (A. Varshney)

POLS 2350. Freedom. Examines the meaning of freedom together with the self-understandings, social practices, and political institutions that underlie and constitute it. Considers literature on freedom from the contemporary liberal, republican, and democratic traditions, including Berlin, Pettit, Arendt, Honneth, Butler, and others. Enrollment limited to 14.

Fall  POLS2350 S01 14858 T 10:00-12:30(09) (S. Krause)

POLS 2450. Exchange Scholar Program.

POLS 2580. Introduction to Quantitative Research Methods. Course begins with basic introduction of statistical analysis and, using STATA, works with students to conduct analysis of their own data set. Open to graduate students in Political Science and Public Policy only.

Fall  POLS2580 S01 15961 M 9:30-12:00(02) (M. Tesler)

POLS 2975. Field Survey and Research Design. An independent study directed by a tenure-line faculty member of the Department of Political Science. Only third-year graduate students may register for the course; it is intended to provide a framework for producing a formal research design modeled on the dissertation prospectus.

POLS 2976. Field Survey and Research Design. An independent study directed by a tenure-line faculty member of the Department of Political Science. Only third-year graduate students may register for the course; it is intended to provide a framework for producing a formal research design modeled on the dissertation prospectus.

POLS 2980. Individual Reading and Research. An independent study course directed by a tenure-line faculty member in the Department of Political Science. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

POLS 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

POLS 2991. Thesis Research and Preparation. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
Portuguese and Brazilian Studies

POBS 0100. Elementary Portuguese.
Designed for students with little or no preparation in the language. Stresses the fundamental language skills of understanding, speaking, reading and writing. Aspects of Portuguese and Brazilian culture are also presented. Uses a situational/natural approach that emphasizes communication in Portuguese from the very first class. A year course; only in exceptional circumstances is credit given for one semester alone. Prerequisite: POBS 0100.

Fall POBS0100 S01 15059 MW 2:00-2:50(10) (P. Sobral)
Fall POBS0100 S01 15059 TTh 1:00-2:20(10) (P. Sobral)

POBS 0110. Intensive Portuguese.
A highly intensive course for students with little or no preparation in the language. Stresses the fundamental language skills of understanding, speaking, reading, and writing. Aspects of Portuguese and Brazilian culture are also presented. Uses a situational/natural approach that emphasizes communication in Portuguese from the very first class. A two-semester sequence in one semester with ten contact hours each week. Carries double credit and covers the equivalent of two semesters. This course should be chosen, in the fall, by students beginning the study of Portuguese as sophomores who would like to participate in the Brown-in-Brazil Program as juniors. Offered every semester.

Fall POBS0110 S01 15060 MWF 10:00-10:50(09) (P. Sobral)
Fall POBS0110 S01 15060 TTh 10:30-11:50(09) (P. Sobral)
Fall POBS0110 S01 15060 MWF 1:00-1:50(09) (P. Sobral)
Spr POBS0110 S01 24380 MW 9:00-10:20(08) (P. Sobral)
Spr POBS0110 S01 24380 MW 11:00-11:50(08) (P. Sobral)
Spr POBS0110 S01 24380 MW 1:00-1:50(08) (P. Sobral)

POBS 0200. Elementary Portuguese.
Designed for students with little or no preparation in the language. Stresses the fundamental language skills of understanding, speaking, reading and writing. Aspects of Portuguese and Brazilian culture are also presented. Uses a situational/natural approach that emphasizes communication in Portuguese from the very first class. A year course; only in exceptional circumstances is credit given for one semester alone. Prerequisite: POBS 0100.

Spr POBS0200 S01 24381 MW 2:00-2:50(10) (P. Sobral)
Spr POBS0200 S01 24381 TTh 1:00-2:20(10) (P. Sobral)

POBS 0400. Writing and Speaking Portuguese.
Designed to improve the students' ability in contemporary spoken and written Portuguese. Using such cultural items as short stories, plays, films, videos, newspaper and magazine articles, and popular music, students discuss a variety of topics with the aim of developing good communication skills. Attention also is given to developing writing ability. A systematic review of Portuguese grammar is included. Prerequisite: POBS 0200, or POBS 0110, or placement. Conducted in Portuguese. Completion of POBS 0400 is the minimum requirement for participation in the Brown-in-Brazil Program. Offered every semester.

Fall POBS0400 S01 15061 MW 11:00-11:50(04) (P. Sobral)
Fall POBS0400 S01 15061 MW 12:00-12:50(04) (P. Sobral)
Spr POBS0400 S01 24382 MWF 10:00-10:50(09) (P. Sobral)
Spr POBS0400 S01 24382 TTh 10:30-11:50(09) (P. Sobral)

POBS 0610. Mapping Portuguese-Speaking Cultures: Brazil.
Selected literary and cultural texts that serve as vehicles for a deeper understanding of Brazilian culture and society through the performing arts. Students will read a series of plays and respond to them in a variety of ways: in writing, verbally, and through performance. The course will include poetry and music as these can also be performed. Throughout the semester students will also be working on creating their own performance pieces. Conducted in Portuguese.

Spr POBS0610 S01 15045 TTh 2:30-3:50(11) (P. Sobral)

POBS 0620. Mapping Portuguese-Speaking Cultures: Portugal and Africa.
Selected literary and cultural texts that serve as vehicles for a deeper understanding of Portuguese and Luso-African societies. Literary materials will be taken from several genres and periods with special attention to contemporary writings. Other media such as film and music will also be included. Considerable emphasis on strengthening speaking and writing skills. Prerequisite: POBS 0400, placement or instructor's permission. Conducted in Portuguese.

Fall POBS0620 S01 24375 TTh 2:30-3:50(11) (L. Simas-Almeida)

POBS 0720. Racial Politics in Contemporary Brazil (AFRI 0710A).
Interested students must register for AFRI 0710A S01 (CRN 24943).

POBS 0810. Belonging and Displacement: Cross-Cultural Identities.
Focuses on the representation of immigrants, migrants and other "border crossers" in contemporary literature from Brazil and other countries. How do people respond to the loss of home and the shift to a new culture? Is "going home" possible? How do individuals deal with their dual or triple identities? Piton, Lispector, Sciar, Rashdie, Salih, Cristina Garcia, V. S. Naipaul and others. Conducted in English. Enrollment limited to 20 first year students. FYS WRIT.

Fall POBS0810 S01 15046 TTh 9:00-10:20(08) (P. Sobral)

POBS 0820. "Coming Out" Jewish, Gay or Black: Mistaken Identity in Literature from USA and Brazil.
Understood as the opposite of passing or assimilating, "coming out" evokes socio-psychological and cultural tensions between public and private identities that are becoming increasingly blurred. Ambivalent identities incite concerns about belongingness, marginalization, citizenship, dislocation, and diaspora. Feeling unfamiliar or displaced as a manifestation of cultural alterity can also lead to situations of mistaken identity. Recognizing today's shift away from essentialisms, this seminar will read fiction from the USA and Brazil by applying the tropes of "coming out" and belonging to illustrate the complex formations and ambiguous practices of identity construction. Enrollment limited to 20 first year students. Conducted in English. FYS WRIT.

Fall POBS0820 S01 15256 W 3:00-5:20(14) (N. Vieira)

We will analyze how a new mindset that would later be called modernity slowly emerged from the medieval world and how the trials and errors of the 15th and 16th century navigators helped shape that transformation. The seminar is interdisciplinary insofar as the readings will include developments in astronomy, geography, shipbuilding, mathematics, philosophy, as well as what could be called early anthropology, as stepping stones to the first scientific revolution. Conducted in English. Enrollment limited to: 20. Reserved for First Year students. FYS.

Fall POBS0910 S01 15049 M 3:00-5:20(13) (O. Almeida)

POBS 1030. Portuguese Stylistics: Advanced Language Study and Creative Writing.
An intensive writing course covering basic genres: letter, short essay, diary, short story, and poetry. Students write five pages per week on five different preassigned topics that range over a wide variety of subjects. Exposes students to idiomatic and stylistic writing in a multitude of areas. In class, students read and comment on each other's writings. Enrollment limited to 20. Conducted in Portuguese. WRIT.

Fall POBS1030 S01 15067 T 12:00-2:20(10) (L. Simas-Almeida)

POBS 1080. Performing Brazil: Language, Theater, Culture.
Designed to deepen the students' understanding of Brazilian culture and society through the performing arts. Students will read a series of plays and respond to them in a variety of ways: in writing, verbally, and through performance. The course will include poetry and music as these can also be performed. Throughout the semester students will also be working on creating their own performance pieces. Conducted in Portuguese.

Spr POBS1080 S01 24377 Th 4:00-6:20(15) (P. Sobral)

POBS 1210. Afro-Brazilians and the Brazilian Polity (AFRI 1210).
Interested students must register for AFRI 1210 S01 (CRN 15585).

POBS 1500B. Azorean Literature.
Survey of the major works in prose and poetry of the Azorean writers of the 20th century that reflect the açorianidade or the Weltanschauung of the Azoreans. Works by writers such as Nunes de Rosa, Vitorino Nemésio, Côrtes-Rodrigues as well as by the most representative authors of the "New Generation." Conducted in Portuguese.

Fall POBS1500BS01 15048 Arranged (O. Almeida)

Examines both fictional narratives written in Portuguese by African authors and fictional works by Portuguese authors that focus on the colonial practices of identity construction. Enrollment limited to 20. Reserved for First Year students. FYS.

Spr POBS1501BS01 15049 M 3:00-5:20(13) (O. Almeida)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
experience of Angola, Mozambique, and Cape Verde. Aims in particular
at the critical analysis of Portuguese colonialism as a means to verify its
specificity or lack thereof within the larger context of overarching European
colonialisms. Conducted in Portuguese. Enrollment limited to 25
Spr POBS1601AS01 24397 M 3:00-5:20(13) (L. Simas-Almeida)

POBS 1600A. Afro-Luso-Brazilian Triangle (AFRI 1020C).
Interested students must register for AFRI 1020C S01 (CRN 24688)

POBS 1600W. Science and Technology Policy in the Global South
(PPAI 1701G).
Interested students must register for PPAI 1701G S01 (CRN 14538)

POBS 1601B. Defying the Wind of Change: Portugal, Rhodesia and
Examines the political, military, intelligence and economic ties between
Portugal, Rhodesia (before and after its Unilateral Declaration of
Independence in 1965) and apartheid-era South Africa as the three
countries resisted calls for equal political representation for men and
women of all races while exploiting their growing financial muscle as
well as the circumstances of the Cold War. The bloc was undone by the
Portuguese revolution of April 1974, which led to the independence of
Angola and Mozambique, and left Rhodesia’s borders exposed. Extensive
use of recently declassified material gathered in Lisbon and Pretoria.
Conducted in English. Enrollment limited to 25
Fall POBS1601BS01 15069 T 4:00-6:20(15) (M. Pacheco)

POBS 1601C. From Dictatorship to Democracy in the Iberian
Peninsula: Transformations and Current Challenges.
Studies the origins and nature of the Franco and Salazar dictatorships,
owardly similar and largely concurrent, but in fact different in their aims,
outlook and methods. Special attention to the personalities of the two
dictators as well as the legacy of Spain’s Civil War and Portugal’s colonial
Empire as elements of differentiation between the two regimes. The
creation of democratic regimes in Spain and Portugal in the mid-1970s
in the aftermath of prolonged dictatorships and the current political and
economic challenges faced by these two countries are also considered in
detail. Conducted in English. Enrollment limited to 25
Spr POBS1601CS01 24379 T 4:00-6:20(15) To Be Arranged

POBS 1670. History of Brazil (HIST 1670).
Interested students must register for HIST 1670 S01 (CRN 15295)

POBS 1720. Literacy, Culture, and Schooling for the Language
Minority Student.
Focuses on increasing awareness of the intersection of language and
literacy, the sociocultural influences on literacy development, and
the application of diverse strategies that support the acquisition of second-
language literacy. Combines a theoretical exploration of literacy processes
and methodological implications with a clinical requirement of four hours
weekly in a second-language field-teaching practicum. Conducted in
English
Spr POBS1720 S01 24387 T 4:00-6:20(15) (S. Smith)

POBS 1800E. The Brazilian Puzzle: Confronting the Post-Colonial
Legacy.
Brazilian intellectuals have often attempted to understand and explain
the challenges in modern Brazilian society (political, economic, racial,
educational) by pondering Brazil’s Iberian roots and assessing the legacy of
Portuguese colonialism. Manuel Bonfim, Sérgio Buqueir de Holanda,
Paulo Prado, Gilberto Freyre, Vianna Moog, Caio Prado, Celso Furtado,
Paulo Freire, Oswald the Andrade, Roberto DaMattta. Attention to film,
music and the visual arts. Conducted in Portuguese
Spr POBS1800ES01 24376 W 3:00-5:20(14) (L. Valente)

POBS 1970. Reading and Guided Study.
Section numbers vary by instructor. Please check Banner for the correct
section number and CRN to use when registering for this course

This independent study course is designed for students working on honors
projects. Written permission of the concentration advisor (Prof. Sobral) is
required. Section numbers vary by instructor. Please check Banner for the
correct section number and CRN to use when registering for this course

POBS 2010A. Language Theory and Curriculum Development.
Focuses on the application of language theory, methodology, and
curriculum development procedure for classes enrolling English language
learners. Participants focus on setting appropriate goals and objectives
aligned with learning standards and develop appropriate curricula in
several subject areas. Conducted in English
Fall POBS2010AS01 15068 Th 4:00-6:20(15) (M. Pacheco)

POBS 2020D. Theories in First and Second Language Acquisition.
Theory and current research relating to first and second language
acquisition and learning are examined from a pedagogical perspective.
Focuses on both learning and teaching a second language. Conducted in
English
Fall POBS2020DS01 15065 T 4:00-6:20(15) (S. Smith)

POBS 2120A. ESL Methodology Assessment and Evaluation.
An overview of the current principles, practices and approaches that
inform assessment and evaluation for English language learners.
Participants engage in class activities that duplicate selected assessment
approaches and identify strategies for integrating assessment with
planning and instruction appropriate to the language proficiency of
students. Participants explore assessment research and theoretical
background for an understanding of the complexity of evaluating student
achievement. Conducted in English
Spr POBS2120AS01 24386 Th 4:00-6:20(15) (M. Pacheco)

POBS 2500F. Tales of the "Sertão".
The reality and mythology of the "sertão" have long been a source of
inspiration for Brazilian writers, visual artists, and filmmakers. This seminar
considers the transformations of the "sertão" motif since the second half
of the nineteenth century. Fiction by José de Alencar, Euclides da Cunha,
Graciliano Ramos and João Guimarães Rosa. Films by Glauber Rocha
and Sandra Kogut. Conducted in Portuguese
Fall POBS2500FS01 15047 W 3:00-5:20(14) (L. Valente)

POBS 2500H. The City and the Street: Tradition, Modernity and
Human Subjectivity in Brazilian Urban Literature.
From Machado de Assis’s streetcar chronicles, João do Rio’s belle-
époque flâneur crônicas, and modernists’ views of São Paulo down to the
urban paranoia of Rubem Fonseca’s crime narratives and the destabilizing
subjectivities of contemporary writers, this seminar examines diverse
urban bodies and cartographies for understanding spatial and temporal
relationships between the city and bodies, sexual cultures, gender roles,
violence, peripheries, and metropolitan apocalyptic tensions. Conducted in
Portuguese
Fall POBS2500HS01 15071 M 3:00-5:20(13) (N. Vieira)

POBS 2600A. Medieval and Renaissance Portuguese Literature.
An analysis of Portuguese literature from the Middle Ages to the 16th
century. Special attention given to the poetry of the Cancioneiros, Fernão
Lopes, Gil Vicente, and Luís de Camões. Conducted in Portuguese
Fall POBS2600AS01 15070 Th 4:00-6:20(15) (L. Simas-Almeida)

POBS 2600P. Fernando Pessoa and Co.
An analysis of key writings by the major Portuguese Modernist poet
Fernando Pessoa, as well as by his more important heteronyms,
particularly Alvaro de Campos, Alberto Caeiro, Ricardo Reis, and António
Mora. The course will emphasize the recurrent themes of identity, divided
self, meaning, disquietude, and displacement. Conducted in Portuguese
Spr POBS2600PS01 24398 Th 4:00-6:20(15) (O. Almeida)

POBS 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are
paying the registration fee to continue active enrollment while preparing for
a preliminary examination

POBS 2980. Reading and Guided Study.
Reading in Portuguese language, literature, civilization, and bilingual
studies. Conducted via Portuguese readings and discussions. Section
numbers vary by instructor. Please check Banner for the correct
section number and CRN to use when registering for this course

POBS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are
paying the registration fee to continue active enrollment while preparing a
thesis

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Public Policy and American Institutions

PPAI 0100. Introduction to Public Policy.
An overview of policymaking and policy analysis in the contemporary United States. The course begins with an examination of traditional justifications for government action. We will then examine the discipline of policy analysis that has arisen to design and evaluate public policies. We will also consider critiques of the rational method and ask questions about how policy expertise fits into the political system. The course ends with classic works on organizations and implementation. Not open to graduate students. WRIT
Fall PPAI0100 S01 14466 TTh 10:30-11:50(09) (V. Cooley)

Who determines how public policy is made? Do public policies reflect what voters want, or do they reflect information, or belong to powerful lobbies? Do the decisions? What factors motivate these different actors? This course examines public policy from the perspective of comparative politics. Over the course of the semester, we will examine policy making in the US and a number of industrialized countries in Western Europe and Japan. Topics studied include immigration policy, education policy, and family policy. Enrollment limited to 20 first year students. FY $ WRIT
Fall PPAI0700J S01 16573 Th 9:00-11:20(08) (A. Pennock)

Broad overview of public policy analysis and program evaluation with emphasis on methodological issues involved in the analysis and assessment of government programs. Illustrations are drawn from a variety of substantive policy areas. Prerequisite: PPAI 0100, and POLS 1600 or EDUC 1110 or SOC 1100 or ECON 1620, or written permission of instructor. Enrollment limited to 40 Political Science and Public Policy concentrators
Spr PPAI1200 S01 23925 MW 8:30-9:50(02) (A. Pennock)

PPAI 1700B. Social Welfare Policy in the United States.
Exposes students to the key challenges for social welfare policy-making in the United States. Particular attention will be given to the formulation and administration of prominent welfare, health, and education policies. Course materials also will explore how demographic and economic trends affect the implementation of social welfare policies. Instructor permission required
Fall PPAI1700B S01 14471 W 10:00-12:20(03) (T. Devine)

PPAI 1700F. Economics and Public Policy.
An economic analysis of major social programs in the United States. Topics include the possibility of market failure in the private sector, the redistribution of income, and incentive effects created by the programs. Specific policy issues to be examined are welfare reform, Medicaid, school finance reform, and the Earned Income Tax Credit (EITC). Enrollment limited to 20
Spr PPAI1700F S01 25336 T 9:30-11:50(08) (T. Devine)

PPAI 1700J. GIS and Public Policy.
An introduction to the theory and practice of social science Geographic Information Systems (GIS) as applied to public policy analysis. Topics include: the geographical basis of policy issues, spatial mapping, and the use of ArcView software to study policy problems
Spr PPAI1700J S01 23919 MW 8:30-9:50(02) (J. Combs)

PPAI 1700K. Health Policy Challenges.
Introduces students to the U.S. health care system. Focuses on how the organization, financing, and market structure of the system affect the key issues of access, cost, quality, and equity of care. Specific issues include minority and vulnerable populations, technology, risk adjustment, managed care, long-term care, ethics, and public health. Enrollment limited to 20 juniors and seniors
Spr PPAI1700K S01 25815 F 3:00-5:20(15) (J. Combs) "To Be Arranged"

Explores policy issues facing cities today and examines how the public, private, and nonprofit sectors have mobilized in selected cities to address these issues. Topics include jobs and economic development, education, public safety, and regional approaches. Focuses on The Providence Plan, a joint city-state revitalization initiative designed to address the problems of urban poverty. Comparisons with similar programs in other cities
Fall PPAI1700R S01 14457 6:00-8:20PM(14) (P. McGuigan)

PPAI 1700S. Policies Affecting Working Families.
Examines sociological and economic factors and current policies contributing to conflict between caring and earning which affects working families in the U.S. Investigates dynamic landscape of the American family and costs of providing and caring for family members. Considers government’s and employers’ roles in shaping policies, cross-national comparison of American policies with other leading nations, and links between policies and outcomes. Enrollment limited to 20
Fall PPAI1700S S01 16262 M 4:00-6:20(13) (R. Loya)

PPAI 1700T. Good Government.
An applied ethics course specifically for students with backgrounds in Public Policy, it will emphasize the primary themes of good government: openness, deliberation, and integrity. Students will develop an essay on good government and do research for case studies of ethical dilemmas involving public servants. Prerequisite: POLS 0100 (or equivalent).
Instructor permission required
Fall PPAI1700T S01 14453 M 3:00-5:20(13) (R. Cheit)

PPAI 1700V. Nonprofit Organizations.
Contemporary nonprofits and their role in community building and shaping public policy are central to this course. Topics include how strong coalitions impact housing, welfare and children’s policy, organizing empowered communities, the influential and engaged donor and building the value of nonprofits. Case studies will be featured and new nonprofit models will be conceptualized to strategically address critical human need. Enrollment limited to 20 juniors, seniors, and graduate students concentrating in Public Policy
Fall PPAI1700V S01 16177 W 9:00-11:20(02) (W. Allen)

PPAI 1700Y. Crisis Management.
Introduces future policymakers to the multifaceted decision-making process in which governments, businesses, advocacy organizations, and the public are thrust into the throes of a policy crisis. Various crisis management theories, key stakeholders in a crisis situation, and the positive and negative effects of various strategies are analyzed.
Enrollment limited to 20 junior and senior concentrators in Public Policy
Fall PPAI1700Y S01 16263 F 3:00-5:20(15) (D. Preston)

PPAI 1700Z. State and Local Government.
Examines state and local politics and government in the United States. The first part of the course examines the historical underpinning and division of power of the major political actors, institutions, and processes through both institutionalist perspectives. The second part focuses on the role of states in shaping significant policy areas including civil unions, education, healthcare, welfare, and the environment
Spr PPAI1700Z S01 25515 W 6:00-8:20PM(18) (R. Kerbel)

A "silver tsunami" is coming. Soon 20% of US residents will be over the age of 65. Governmental policy makers and business leaders are scrambling to adapt as the aging population reshapens the demand for services and products and threatens to unravel the social safety net. This course will investigate the aging wave, analyze its impact on both private and public organizations through case study review, and consider implications for future management and policy. Emphasis will be on "social entrepreneurship" - practical solutions and their implementation within organizations. Enrollment limited to 20, preference given to graduate students, public policy concentrators, and seniors
Fall PPAI1701D S01 14469 M 6:00-8:20PM(18) (S. Gresham)

PPAI 1701G. Science and Technology Policy in the Global South.
Using theoretical ideas and empirical examples, this seminar explores from a variety of perspectives the relationships among science, technology, society, and public policymaking in the Global South. Bridging public policy and science studies, the seminar introduces a more integrated perspective on science and technology governance, and enhances capacity for effective policymaking practice. Students will be graded on three writing assignments; participation in a web-based roundtable with counterparts in Brazil, South Africa and/or India; and class participation. Enrollment limited to 20 juniors and seniors; others welcome with instructor's permission. WRIT
Intractable social problems across the globe demand new, impactful solutions. Social entrepreneurs, driven by passion to change the world, fuse social missions and savvy business practices to create enterprises that solve these complex challenges. Leading Social Ventures is designed for students who are leading social ventures or aspire to create and lead them. “Action learning” means students will apply educational content to a specific venture in the early stage of development. Students will work on a venture that they have created or select an existing early-stage venture among provided choices. Enrollment limited to 25

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<th>Course Code</th>
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<th>Instructor(s)</th>
<th>Time</th>
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<tr>
<td>PPAI 1710Q</td>
<td>Leading Social Ventures - Social Entrepreneurship in Action</td>
<td>(A. Harlam)</td>
<td>4:00-6:20(15)</td>
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PPAI 1701H. Congressional Leadership, Parties and Public Policy.
Focuses on the Congressional leadership, parties in Congress and their impact on political interactions, and public policy. The course will examine the relationship between the leadership in the Congress and the powerful elements in the House and Senate such as committee chairmen and the party caucuses as well as the media and lobbyists. Emphasis is on the decades long trend toward greater political polarization and its impact on the ability of the institution to respond effectively to address critical national priorities such as the federal debt, health reform immigration, nuclear proliferation and global warming. Enrollment limited to 20 juniors, seniors and graduate students

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<tr>
<td>PPAI 1701H</td>
<td>Congressional Leadership, Parties and Public Policy</td>
<td>(G. Augusto)</td>
<td>9:00-11:20(08)</td>
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PPAI 1701J. Policy Implementation.
Why do well-intentioned policies sometimes produce unfortunate results? This course will examine how policies designed by elected officials, bureaucrats, and courts are translated into practice through implementation, how and why public policies succeed or fail to produce changes in practice, and how policy implementation bears on democratic governance. The course will consider policy implementation across policy domains, with recurring attention to k-12 education policy. Enrollment is limited to 20

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<tbody>
<tr>
<td>PPAI 1701J</td>
<td>Policy Implementation</td>
<td>(S. Moffit)</td>
<td>3:00-5:20(15)</td>
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PPAI 1701K. Governance in the Academy: A University at Work in the 21st Century.
Focuses on understanding and evaluating the governance of the modern university. Brown will be used as one example to illustrate and illuminate various aspects of university governance. Themes of leadership, effective decision-making, priority-setting, planning, conflict and crisis management, and optimal organizational structure and behavior will be discussed. Students will be well-versed in the language, structure, roles of actors, and general operations of university governance and equipped to analyze and assess the strengths and weaknesses of various models. Students with an interest in pursuing a career in academia or other non-profit organizations will benefit from this course. Enrollment limited to 20 juniors and seniors

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<tbody>
<tr>
<td>PPAI 1701K</td>
<td>Governance in the Academy: A University at Work in the 21st Century</td>
<td>(R. Carey)</td>
<td>3:00-5:20(13)</td>
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PPAI 1701M. Juvenile Justice Institutions and Policy.
Examines the historical and legal development of the juvenile justice system and provides an overview of delinquency theory. These frameworks are used to study the major institutions and current policy issues in the juvenile justice system. Special topics include teen and family courts, age of jurisdiction, racial disparities in juvenile justice, and female delinquency. Students engage in a semester-long project to develop a policy brief addressing a current issue in juvenile justice. Enrollment limited to 20 juniors and seniors. Instructor permission required

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<tr>
<td>PPAI 1701M</td>
<td>Juvenile Justice Institutions and Policy</td>
<td>(V. Cooley)</td>
<td>3:00-5:20(15)</td>
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PPAI 1701O. Labor Market Policy.
Students will learn how to use basic economics models to analyze important labor market policy questions. Topics will include minimum wages, payroll tax cuts, training subsidies, unemployment insurance, negative income taxes, and others. Students will also learn how to find and interpret important labor market data (for example, unemployment rates, payroll employment numbers, and wages) which are used by policy analysts to evaluate local and national labor markets. Prerequisite: ECON 1110, ECON 1130, or EDUC 1130; or instructor permission. Enrollment limited to 20

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<tbody>
<tr>
<td>PPAI 1701O</td>
<td>Labor Market Policy</td>
<td>(T. Devine)</td>
<td>9:30-11:50(08)</td>
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PPAI 1701P. Inequality, Poverty, and Public Policy in the United States.
The course uses a multi-disciplinary social science approach to examine the intersections of racial and gender inequality, poverty, and public policy in the United States. The course is an advanced reading seminar that explores various approaches to theorizing, measuring, and researching poverty and inequality. The course also critically examines the role of historic public policies in reinforcing existing inequalities and evaluates policies and strategies to reduce poverty and inequality. Enrollment limited to 20 juniors and seniors. DVPS

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<tr>
<td>PPAI 1701P</td>
<td>Inequality, Poverty, and Public Policy in the United States</td>
<td>(R. Loya)</td>
<td>3:00-5:20</td>
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Studies how political, social, and economic institutions structure policymaking. Covers a variety of policy areas such as education, health care, technology policy, welfare, and social policy

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<tbody>
<tr>
<td>PPAI 1700</td>
<td>Institutions and Policy Making</td>
<td>(E. Schnidman)</td>
<td>4:00-6:20(15)</td>
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</table>

PPAI 1990. Public Policy Colloquium.
An advanced two-semester research seminar for senior honors candidates in the public policy and American institutions concentration. Participants jointly consider strategies appropriate to researching and writing a senior paper before proceeding to individual research on topics they choose. Each participant is required to present a summary of his or her work to the colloquium

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<tbody>
<tr>
<td>PPAI 1990</td>
<td>Public Policy Colloquium</td>
<td>(R. Cheit)</td>
<td>12:00-1:20(12)</td>
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Examines issues in government spending and tax policy. Conceptual topics include the normative assignment of responsibility with federal systems and the equitable distribution of income. Specific policy applications are covered

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<tr>
<td>PPAI 2000</td>
<td>Economies and Public Policy</td>
<td>(E. Schnidman)</td>
<td>4:00-6:20(15)</td>
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Explores how organizations use budgets and management tools to achieve broader social, economic, and political objectives. It is designed to show how these techniques can be used to improve organizational performance

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<tbody>
<tr>
<td>PPAI 2020</td>
<td>Public Budgeting and Management</td>
<td>(T. Devine)</td>
<td>8:30-9:50(02)</td>
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PPAI 2030. Statistics.
Covers social and economic statistics and their role in public policy research. Among the topics explored are descriptive and inferential statistics, measurement, sampling, and multivariate analysis. Open to graduate students in Public Policy or Political Science

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<tr>
<td>PPAI 2030</td>
<td>Statistics</td>
<td>(A. Penock)</td>
<td>1:00-2:20(10)</td>
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</table>
PPAI 2035. Statistics II for Public Policy Analysis.  
The course introduces students to the use of multiple regression analysis and program evaluation for analyzing data in the social sciences. We will study a variety of designs for empirical public policy analysis, from random assignment to quasi-experimental evaluation methods, and students will have the opportunity to analyze actual datasets. We will also study the strengths and weaknesses of alternative evaluation strategies  
Spr PPAI2035  S01 25959  TTh 1:00-2:20(10)  "To Be Arranged"

PPAI 2040. Policy Analysis.  
Investigates policy analysis and program evaluation with emphasis on assessment of government programs  
Spr PPAI2040  S01 23916  T 3:00-5:20(15)  (V. Cooley)

PPAI 2050. Program Evaluation.  
Designed to equip graduate students with the knowledge and tools needed to become critical consumers of evaluation research and to conduct evaluations of various social programs and policies. Following an introduction to the field of program evaluation, the course will address specific topics including: logic models, process evaluations, experimental and quasi-experimental designs for outcome evaluations, and alternative data sources. Class discussions and assignments will utilize evaluation examples from a variety of substantive policy areas. Prerequisite: PPAI 2030. Open to graduate students only  
Spr PPAI2050  S01 23918  Th 3:00-5:20(15)  (V. Cooley)

Graduate seminar exploring how organizational, political and professional cultures shape policymaking and implementation; how policymakers and practitioners acquire policy-relevant knowledge and frame issues for public action; and how policy is made and implemented in complex interactive systems. Draws on instructor’s own public policy experience in U.S. and southern Africa. Readings are transdisciplinary, and both U.S. and international. Seminar provides thorough grounding in key organization theories, while enhancing capacity to act across boundaries. No prerequisites. Reserved for graduate students in Public Policy and Public Affairs. Advanced undergrads and graduate students from other departments may apply for permission from the instructor. Enrollment limited to 30  
Fall PPAI2130  S01 14539  W 3:00-5:20(14)  (G. Augusto)

PPAI 2150. Strategic Communication.  
Teaches students communication skills for social change, and examines how individuals and organizations frame issues in order to effect change  
Spr PPAI2150  S01 23922  M 3:00-5:20(15)  "To Be Arranged"

PPAI 2350. Thinking, Planning and Acting Strategically.  
This course will focus on the strategic trends and issues which impact the public and nonprofit sectors and the role of strategic planning and strategic thinking as fundamental tools of public and nonprofit institutions to build high performance organizations, increase the value of their programs and services and enhance problem-solving. This course has been designed to support students in acquiring a mastery of practical skills in strategic planning and strategic thinking  
Fall PPAI2350  S01 16359  TTh 9:00-10:20(08)  (W. Allen)

PPAI 2540. Urban Economic Policy.  
This course will introduce students to the economic analysis of urban policy. We will use economic theory to analyze why cities exist, where they develop, how they grow, and how activities are spatially arranged within urban areas. As we ask each of these questions, we will examine how public policy can influence the outcome and review empirical evidence. As time allows, we will also examine the economics of poverty, housing, and other issues within the urban context. Prerequisite: PPAI 2010 or instructor permission  
Spr PPAI2540  S01 25846  M 9:30-11:50  (T. Devine)

PPAI 2550. Managing and Leading in Public Affairs.  
Examines issues related to leading and managing in the realm of public affairs, covering foundation topics such as: honor, ethics, and accountability; management and organizational theory; organizational behavior; managerialism, performance, and strategic management; leadership; personnel management and social equity. Examining tools for effective relationship and networking building, cases will be used to apply concepts learned  
Fall PPAI2550  S01 14473  M 9:00-11:20(08)  (J. Stattery-Bownds)

PPAI 2600. Social Science Data Technologies.  
Covers the applied use of data sources and computer software programs. Its goals are to teach students how to use common software packages and access policy-relevant data  
Fall PPAI2600  S01 14454  T 4:00-6:20(15)  (J. Combs)

Focus is on the federal budget process, political interactions, and public policy outcomes. The budget represents nearly one-quarter of GDP making those decisions central to the functioning of our democracy and the health of our economy. Emphasis is on the Congressional budget process, appropriations process, and revenue decision-making because the Constitution establishes Congress as the guardian of the nation’s purse strings  
Spr PPAI2650  S01 24093  F 9:30-11:50(03)  (R. Arenberg)

PPAI 2700. Advanced Organizational and Management Strategies.  
This discussion-intensive graduate-level seminar focuses on a wide range of contemporary theories and practices in organizational and management strategies. Topics include organizational structure and design, communication, culture and diversity, change management, stakeholder relations, long-term strategic planning, as well as workforce development and leadership identification, development and succession strategies. Course assignments include team-developed reports and oral presentations. Enrollment limited to 18 Public Policy graduate students and junior and senior Public Policy concentrators; other students by instructor permission  
Spr PPAI2700  S01 25514  W 4:00-6:20(14)  "To Be Arranged"

PPAI 2750. Mediation, Negotiation, and Arbitration Strategies.  
This graduate-level seminar is a synthesis of negotiation, arbitration, and mediation theories and practices as applied to public policy professionals. Course topics include interagency negotiation and cooperation, professional and workplace negotiations, agreements in legislative and advocacy environments, using non-governmental bargaining partners, role of government regulators, and international and cross-cultural agreements. Emphasis on analysis of ethical issues and strategies in the planning, formulation, and implementation of negotiated agreements. Enrollment limited to 16. Instructor permission required  
Fall PPAI2750  S01 15948  W 6:00-8:20PM(18)  (R. Kerbel)

PPAI 2800. Internship.  
Practical job experience in the public, private, or non-profit sector  
Fall PPAI2800  S01 16194  Arranged  (J. Stattery-Bownds)

PPAI 2900. Research Workshop.  
Group research projects centering on topics organized by the instructor. Students will be organized into small teams that will undertake research projects such as policy analysis, evaluation studies, organizational assessments, or data projects. Results of these projects will be presented in the seminar  
Spr PPAI2900  S01 25513  T 6:00-8:20PM(12)  (P. McGuigan)

PPAI 2980. Graduate Independent Study.  
Please check Banner for the correct section number and CRN to use when registering for this course

PPAI XLIST. Courses of Interest to Concentrators in Public Policy.  
Fall 2012  
The following courses, listed in other departments, may be of interest to Public Policy concentrators. Please check the course listings of the sponsoring department for times and locations.

Economics  
ECON 1110 Intermediate Microeconomics  
ECON 1620 Introduction to Econometrics  
ECON 1629 Applied Research Methods for Economists  
ECON 1630 Econometrics I

Education  
EDUC 1110 Introductory Statistics for Education Research and Policy Analysis  
EDUC 1130 Economics of Education I  
EDUC 2330 Urban Politics and School Governance

Sociology  

SOC 1100 Introductory Statistics for Social Research

Spring 2013

The following courses, listed in other departments, may be of interest to Public Policy concentrators. Please check the course listings of the sponsoring department for times and locations.

Economics
ECON 1110 Intermediate Microeconomics
ECON 1300 Intermediate Microeconomics (Mathematical)
ECON 1620 Introduction to Econometrics
ECON 1630 Econometrics I

Education
EDUC 1160 Evaluating the Impact of Social Programs
EDUC 1650 Policy Implementation in Education

Political Science
POLIS 1600 Political Research Methods

Sociology
SOC 1100 Introductory Statistics for Social Research

Religious Studies

A close analysis of the development of ideas about death and the afterlife in the Hebrew Bible and in the literatures of Second Temple Judaism and early Christianity. Topics: life and death in Israel and ancient West Asia; the abode of the dead and its denizens; from Sheol to Heaven, Hell, and the final judgment; religious specialists, rituals, and the literature of death: necromancy; burial and mourning rites; cults of the dead ancestor. No prerequisites. Enrollment limited to 20 first year students. FYS LILE WRIT
Fall RELS0020 S01 14528 M 3:00-5:20(13) (S. Olyan)

RELS 0030. The Apocalyptic Imagination.
In anticipation of popular apocalyptic expectations for 2012, this course will explore the origins and nature of apocalypticism. Beginning with modern apocalyptic thought in ancient Jewish writings (including the Books of Daniel and Ezekiel in the Hebrew Bible), we will explore the socio-historical context for ancient Jewish visionary ascetic texts, early Christian apocalypses (including the Book of Revelation) and later interpretations and use of ancient “prophecy” concerning the end of the world. This course includes a close reading of ancient texts and an analysis of the 2012 apocalyptic imagination through popular literature and movies.
Spr RELS0030 S01 23920 MWF 12:00-12:50(05) (N. Denzey)

RELS 0050. Love: The Concept and Practice.
A study of love (in classical and modern texts and in film) that provides a window into a host of religious, philosophical, and ethical issues. Topics include the potential conflict between divine and human love, between transcendent and earthly love, and the nature of friendship, romance, marriage, and love at the crossroads. Although the scope is love in the West, the Kamasutra and other texts furnish a comparative component.
Fall RELS0050 S01 14529 MWF 12:00-12:50(12) (M. Cladis)

An examination of classic and contemporary views on the nature of human existence. Central themes include human freedom, the relation between reason and emotion, and the significance of personal history and memory. We also ask how conceptions of who we are shape views about how we should live. Sources include religious and philosophical texts as well as recent films.
Spr RELS0065 S01 23921 MWF 1:00-1:50(06) (T. Lewis)

RELS 0068. Religion and Torture.
The debates about the moral and legal status of torture have acquired a new urgency since 9/11. People are now questioning the consensus of law and human rights declarations that torture is never permissible. Indeed, some argue that in extreme cases, it may be obligatory to torture a captive for information that could save many lives. This class explores the recent debates about torture from secular and religious perspectives. It also deals with more general themes related to torture: What are the nature and effects of pain? Are human beings sacred, and does sacredness involve a prohibition against torture? LILE
Spr RELS0068 S01 23923 MWF 11:00-11:50(04) (S. Bush)

RELS 0085A. From Amsterdam to Istanbul: Christians, Moslems, and Jews (JUDS 0050E).
Interested students must register for JUDS 0050E S01 (CRN 15685)

RELS 0120. The Foundations of Chinese Religions: Mystics, Moralists and Diviners.
An introduction to the origins and early development of the indigenous religious thought of China from the oracle bone divination of the Shang Dynasty to the ethical philosophy of Confucianism and the cosmology and mysticism of Daoism. The course will seek to identify and elucidate the basic elements of the distinctive Chinese worldview and demonstrate how they have shaped the nature of religious practice and experience and how they have been shaped by them. Works of interpretative scholarship will be used to supplement the primary texts in translation that will form the course. Optional lab section will give first-person experience with the ancient divination practices of the I Ching, Confucian moral psychology, and early Daoist meditation.
Fall RELS0120 S01 14530 TTh 10:30-11:50(09) (H. Roth)

This course explores currents of Hinduism through its traditions of narrative and performance. Ranging across a diversity of narrative and performative “texts,” we enter a world where fires are kindled, gods and demons clash, crises of faith and duty are resolved. We learn about key Hindu beliefs, mythology and iconography; and see Hinduism as it is lived across India. An introductory immersion, from karma to rebirth, OM to tantra
Fall RELS0135 S01 16507 TTh 2:30-3:50(11) (F. Moore-Gerety)

An introduction to the history of Japanese religion as it developed in the early and medieval periods, with some attention to related modern and contemporary manifestations. The emphasis will be on native (“Shinto”) ideas and practices; selected Buddhist teachings; and popular practices such as shamanism and death rituals. Readings include primary texts in translation and selected modern interpretations. No prerequisites
Fall RELS0190 S01 14531 TTh 1:00-2:20(10) (J. Sawada)

How and why Christianity emerged in various forms in the ancient Mediterranean. Insights from religious studies, gender studies, literary studies, anthropology, and other fields. Careful critical readings of New Testament books, non-canonical gospels, early Christian letters, ancient apocalypses. Topics include: Jewish contexts; representations of Jesus; Paul and early communities; Christians and imperial Rome; gender constructions; canonization; eventual separation of Christianity and Judaism. Open to all students. LILE WRIT
Fall RELS0400 S01 14532 MWF 11:00-11:50(04) (N. Denzey)

RELS 0530. Laoszi and the Daodejing.
Seminar on the historical and philosophical origins of the Daodejing, heretofore acknowledged as the foundational text of the Daoist tradition. Recently discovered and translated manuscripts from Ma-wang-tui and from Guodian that cast new light on these questions will be the basis for the course. Recent research on early commentarial traditions to the Tao Te Ching and on its philosophical significance will also be studied.
Prerequisite: RELS 0040, 0120, or UNIV 0540 or permission of instructor
Spr RELS0530 S01 23928 Th 4:00-5:20(15) (H. Roth)

RELS 0600. Islam and Modernity.
Lupe Fiasco, Al-Jazeera News, Mos Def, and reality shows produced by Ryan Seacrest: Contemporary Islam is now having an impact on modern culture in unprecedented ways. Islam is often said to be the fastest growing religion in America, and is second to Christianity in all the countries of Western Europe. In this class we will study the contemporary life, culture and thought of Muslims in America and Europe. We will begin with exploring Muslims and the Islamic faith in the Americas from the Atlantic slave trade, and move to the present
Spr RELS0600 S01 24827 MWF 10:00-10:50(03) (N. Khalek)

RELS 0610. Sacrifice and Society.
Investigation of the sacrificial practices and ideologies that have been important to numerous unrelated societies. The origin and significance of animal sacrifice has been a central question for classical social theory (e.g., Durkheim, Freud, Mauss) and is still important for theorization in...
anthropology and religious studies. Probable examples include Israelite, Greek, Hawaiian, Christian. Nuer. 999999
Spr RELS0610 S01 25099 TTh 1:00-2:20(10) (S. Stowers)
RELS 0825. Foundational Texts in African American Theology. Central topics and foundational texts in the field of scholarship historically known as Black Theology. Major African American responses to those writings by Marxists, Womanists, process theologians, and religious humanists. DVPS LILE
Spr RELS0825 S01 24848 TTh 10:30-11:50(10) (A. Willis)
RELS 0830. Religion, Reason, and Ethics from Kant to Nietzsche. The nineteenth century witnessed revolutionary transformations in thinking about the power and limits of human reason, the relation between reason and religion, revelation, the role of humanity in creating religion, morality and religion, the significance of history, and the plurality of religions. This course examines major thinkers from this period who continue to shape our own assumptions and reflection. WRIT
Fall RELS0830 S01 14533 MWF 1:00-1:50(06) (T. Lewis)
RELS 0880D. Money, Power, Sex and Love: The Modern Jewish Family in Europe and America (JUDS 0980V).
Interested students must register for JUDS 0890V S01 (CRN 23668)

Fall RELS1000 S01 14534 M 3:00-5:20(13) (S. Bush)
RELS 1135. The Concept of Sin in Ancient Judaism. How is it possible to reconcile the existence of sin and evil with the belief in an omnipotent, omniscient and benevolent God? Where does sin come from, and what are its consequences? These questions are prominent in Jewish literature during the Second Temple period—the period that engendered both Christianity and rabbinc Judaism. The approaches to sin found in these texts reflect a complex religious worldview. By reading these texts first-hand we will delve into these concepts and reflect on what they can tell us about ancient conceptualization and about our own understanding of sin and ethics
Fall RELS1135 S01 16337 Th 1:00-3:20(10) (M. Brand)
RELS 1205. Ancient Egyptian Religion and Magic (EGYT 1420).
Interested students must register for EGYT 1420 S01 (CRN 24435)
RELS 1320. The Origins of Western Morality. How Greco-Roman and Jewish moral and ethical thought and practices were appropriated and transformed by Christianity. Special attention to Hellenistic philosophy, the Greek version of the Hebrew Bible and Christian writers in the first three centuries CE. Addresses questions about the origins of tensions and conflicts in Western morality and why sexual ethics have been so prominent and so problematic
Fall RELS1320 S01 14535 TTh 2:30-5:30(11) (S. Stowers)
Interested students must register for HMAN 1970 S01 (CRN 25390)
RELS 1360. Gnosticism: Studies in Early Christian Diversity. Before the emergence of Christian “orthodoxy,” from the second to the fourth centuries, Christianity often adopted unusual modes of expression. This course offers an examination of some of these different forms of Christianity, as Christians attempted to balance issues of self-identity and self-definition with compromise and cultural accommodation. Examining early Christian “heretics” as case-studies, this course will focus on reading second-century texts from the Nag Hammadi Library and learning what we can about the communities that produced them. Prerequisite: one course in New Testament or Christian Origins. If the course is oversubscribed, priority will be given to graduate students and Religious Studies concentrators. Prerequisite: RELS 0400 or equivalent. WRIT
Spr RELS1360 S01 24573 Th 4:00-6:20(15) (N. Denzey)
RELS 1370B. Philosophy of Mysticism. Covers important attempts to understand the nature of religious experiences and mysticism. We will look at several philosophical issues surrounding religious experience, including: (a) whether mystical experiences are too private for outsiders to understand or evaluate them;
(b) what the relationship between religious experiences, language, and culture is; (c) whether religious experiences justify religious beliefs; and (d) how gender and religious experiences are related. We will treat theorists from various perspectives, including philosophical, historical, theological, psychoanalytic, and neuroscientific. Previous work in philosophy courses (or philosophically-intensive courses) is highly recommended. Enrollment limited to 20
Spr RELS1370B S01 24424 M 3:00-5:20(15) (S. Bush)
RELS 1370C. David Hume and Religion.
This course will consider and challenge traditional scholarly views of philosopher David Hume as a critic of Christianity, by examining a wide range of his writings (letters, historical writings, moral enquiries, philosophical and religious writings). How might his corpus inform work in philosophy of religion? Previous coursework in philosophy or philosophy of religion strongly advised. Enrollment limited to 20
Fall RELS1370C S01 15496 T 4:00-6:20(15) (A. Willis)
RELS 1430. Classics of East Asian Buddhism. An opportunity to read and understand the canonical texts of East Asian Buddhism. Through close reading, written analysis, and discussion, participants will become conversant with the major Mahayana Buddhist teachings in their original scriptural or literary articulations. Selected later interpretations may also be considered. All readings are in English translation. Previous study of Buddhism is recommended, but not required. Enrollment limited to 20 students. WRIT
Spr RELS1430 S01 23950 W 3:00-5:20(14) (J. Sawada)
RELS 1441. Zen Meditation in China, Korea, and Japan.
Intensive study of the development of Zen Meditation in China, Korea, and Japan featuring historical origins in Indian Mahayana Buddhism and Chinese Daoism. Historical and social contextualization will be balanced by first-person investigations. Examines both kōan and silent illumination methods. Weekly seminars on representative texts in translation; labs will experiment with meditation techniques directly drawn from the readings. Students register for both seminar and lab. Topic for 2012: Chinese Chan. Prerequisite: EAST 1950F, 1950S, RELS 0040, 0100, 0500, 1430, or UNIV 0540; or instructor’s permission. Enrollment limited to 20
Fall RELS1441 S01 15444 W 3:00-5:20(14) (H. Roth)
Interested students must register for EAST 1950Z S01 (CRN 15963)
RELS 1530B. Methods and Problems in Islam: Heresy and Orthodoxy. Orthodoxy is defined as “right belief” while Heresy is just the opposite, but those definitions have always been in tension with society and culture. This course will interrogate theory and history to ask “What are Islamic Orthodoxy and Heresy?” From Islamic Law to who is or is not a “heretic” we will uncover interpretations of religious law, practice, and culture to learn how scholars apply orthodoxy or heresy to disrupt and unsettle notions of what “Islam” was at different moments, and how their interpretations force us to think of new ways to envision the formation of communities. Enrollment limited to 20 students. DVPS LILE
Spr RELS1530B S01 23951 M 3:00-5:20(13) (N. Khalek)
Interested students must register for JUDS 1530 S01 (CRN 23669)
Interested students must register for HMAN 1970K S01 (CRN 25392)
RELS 1760. Religion and Suspicion. Religion has arguably been the classical locus of suspicious models of interpretation. Social and critical theorists from Marx to Foucault have argued that we only understand what religion really does if we interpret it with suspicion—if we refuse to take its claims at face value. Others have sought to redirect suspicion back against suspicion itself, and religious thinkers have sought to incorporate critiques of religion into their own theological projects. This seminar studies key figures in this complex interplay of religion and suspicion. Likely readings from Felsenthal, Marx, Nietzsche, Barth, Horkheimer, Adorno, Gadamer, Foucault, Said, Gutierrez, Schuessler-Fiorenza, and Butler. Enrollment limited to 20
Spr RELS1760 S01 24572 T 12:00-2:20(13) (T. Lewis)
RELS 1830. Religion, Politics, and Culture in America, 1600 - Present (HIST 1801). Interested students must register for HIST 1801 S01 (CRN 15289)

RELS 1835. History of Religion in America, 1600-1865 (HIST 1800). Interested students must register for HIST 1800 S01 (CRN 24755)

RELS 1990. Individual Study Project. Directed reading and research arranged with individual faculty. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

RELS 1999. Thesis Preparation. Required of seniors in the honors program. Open to others only by permission of the chair of the department. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

RELS 2110A. Religion and Romanticism: Religious Nature and Nature Religion. This seminar investigates the intersection and transformation of religion, democracy, and the environment in German, English, and American Romanticism

RELS 2200K. Lived Religion in the High Empire and Late Antiquity. This graduate course will use the theoretical work of Robert Orsi and Michel de Certeau to recover aspects of “lived” or “quotidian” religious experience in the High Roman Empire and Late Antiquity, particularly (but not exclusively) in the city of Rome. We will use as our data set not only textual sources in the original language and translation, but also elements of material culture (amulets, pyxides, reliquaries, crepundia, textiles, sortes, etc.), funerary epigraphy, and papyri

RELS 2200R. Religion and Romanticism: Religious Nature and Nature Religion. This seminar investigates the intersection and transformation of religion, democracy, and the environment in German, English, and American Romanticism

RELS 2400F. Pro-Seminar in Greek and Roman Religion and Philosophy. A graduate level introduction to Greek and Roman religion with a focus upon the Hellenistic period and the Roman Empire and to Hellenistic and Post-Hellenistic philosophy. Topics include the critical use of sources, methods and the synthesis and theorization of the phenomena. Required of RAM graduate students

RELS 2450. Exchange Scholar Program.

RELS 2600D. Pragmatism and Religion. Readings in the original American pragmatists and their recent admirers with special attention to the topic of religion

RELS 2650. Religion in the Early Modern Atlantic World (HIST 2980Y). Interested students must register for HIST 2980Y S01 (CRN 15422)

RELS 2890. Preliminary Examination Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for preliminary examinations

RELS 2910. Independent Research. The staff is willing to offer independent reading courses in selected areas. See the Instructor for more information. Please check Banner for the correct section number and CRN to use when registering

RELS 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

Renaissance and Early Modern Studies

REMS 1580. Word, Image and Power in Renaissance Italy (ITAL 1580). Interested students must register for ITAL 1580 S01 (CRN 14483)

REMS 1980. Independent Study in REMS. Tutorial instruction on a topic in the Renaissance or early modern period, supervised by a member of the core faculty. This number may be used by concentrators for the required Independent Project undertaken in the junior or senior year. Section numbers vary by professor; instructor permission required

Science and Society


SCSO 0250F. Man and Machine (ENGL 0450F). Interested students must register for ENGL 0450F S01 (CRN 14343)

SCSO 0510. Problems in International Environmental Policy (ENVS 0510). Interested students must register for ENVS 0510 S01 (CRN 14721)

SCSO 0901I. Body Count: Technologies of Life and Death (MCM 0901I). Interested students must register for MCM 0901I S01 (CRN 23876)

SCSO 0910. On the Dawn of Modernity (POBS 0910). Interested students must register for POBS 0910 S01 (CRN 15049)

SCSO 1000. Gender, Science, and Society. This seminar introduces students to interdisciplinary approaches to the role of gender in science and society. It uses an integrated natural and social scientific Problem-Based Learning pedagogy to explore real-world problems like validating knowledge about sexual difference, the relationship between politics and science, and the characterization of biomedical disorders like hormone imbalance and depression. The class will be broken into groups that evenly consist of natural and social science concentrators in order to approach problems from natural and social scientific perspectives. Students will learn critical scholarship including gender studies, feminist theory, and science and technology studies. Enrollment limited to 40

SCSO 1140. Nature, Knowledge, and Power in Early Modern Europe (HIST 1140). Interested students must register for HIST 1140 S01 (CRN 24739)

SCSO 1190. Nineteenth-Century Roots of Modern Science (HIST 1190). Interested students must register for HIST 1190 S01 (CRN 15313)

SCSO 1200. Race, Science, and Society: Genomics and Beyond. Why are drugs being marketed as racial saviors? What does biotechnology have to do with race? This course introduces students to interdisciplinary approaches to the study of race in science and society as an integrated natural and social scientific endeavor. Using a team-based pedagogy, interdisciplinary groups of natural and social science concentrators will explore real-world problems like validating knowledge about racial difference, the relationship between politics and science, and the newest findings in such scientific fields as anthropology, epidemiology, and cognitive science. Intended for seniors who are interested in race and STS, the course will give priority enrollment to students who co-enroll in BIOL 3101, 0400, 0470, 0480, or have taken similar Biology courses. Enrollment limited to 40. S/NC

SCSO 1400. Science and Society: Theories and Controversies. What is “science”? How do scientific ideas become knowledge? What is the nature of scientific objectivity, and how can it be compromised? What is a scientific community, scientific consensus, and scientific authority? What roles does science play in our culture, and how is science related to other social institutions and practices (e.g., government, military, business, education, medicine, law, art)? The interdisciplinary field of science studies is introduced through exploration of topics that include: gender and race, psychiatric classification, the drug industry, science and religion, and the use of nuclear weapons during WWII. Enrollment limited to 30 sophomores, juniors and seniors; others may enroll with permission of the instructor. WRIT

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
SCSO 1401. Sustainable Design in the Built Environment (ENVS 1400).
Interested students must register for ENVS 1400 S01 (CRN 14881)

Interested students must register for ENVS 1410 S01 (CRN 24191)

SCSO 1550B. Neuroethics.
In this course, we will examine ethical, social, and philosophical issues raised by developments in the neurosciences. Topics will include: neurodevelopment and the emergence of persons; the impact of child abuse on brain development; aging, brain disease, and mental decline; life extension research; strategies and technologies for enhancement of human traits; "mind-reading" technologies; agency, autonomy, and excuse from responsibility; error and bias in memory; mind control; neuroscientific and evolutionary models of religious belief and moral judgement. Enrollment limited to 20. SCSO 1400 is recommended but not required. Written permission required.

If the class is oversubscribed, preference will be given to Science and Society concentrators
Fall SCSO1550BS01 15929 T 4:00-6:20(15) (J. Poland)

SCSO 1600. Astronomy Before the Telescope (AWAS 1600).
Interested students must register for AWAS 1600 S01 (CRN 24432)

SCSO 1650. Time in the Ancient World (AWAS 1650).
Interested students must register for AWAS 1650 S01 (CRN 15127)

Interested students must register for ENVS 1720 S01 (CRN 24195)

SCSO 1900. Senior Seminar in Science and Society.
This is an advanced seminar that uses a Problem Based Learning style pedagogy to explore real-world problems inSTS. To solve assigned problems students will want to explore critical scholarship in areas such as laboratory studies, feminist science and technology studies, the rhetoric and discourse of science and technology, expertise and the public understanding of science. Course is intended for Science and Society senior concentrators, but is open to others with appropriate background. Enrollment limited to 20
Fall SCSO1900 S01 15923 M 3:00-5:20(13) (A. Fausto-Sterling)

SCSO 1920D. Race, Difference and Biomedical Research: Historical Considerations (BIOL 1920D).
Interested students must register for BIOL 1920D S01 (CRN 15192)

Independent reading and research work in Science and Society is available to students who have completed introductory and intermediate level work in Science and Society. A decision to enroll must be made via consultation with the concentration advisor and the faculty advisor for the course. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Prerequisite: SCSO 1400. Open to junior and senior concentrators in Science and Society; instructor permission required. S/N/C

Independent reading and research work in Science and Society is available to students who have completed introductory and intermediate level work in Science and Society. A decision to enroll must be made via consultation with the concentration advisor and the faculty advisor for the course. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Prerequisite: SCSO 1400. Open to junior and senior concentrators in Science and Society; instructor permission required

Interested students must register for HIST 1978C S01 (CRN 25866)

SCSO 2700. Special Topics in Ancient Sciences (AWAS 2700).
Interested students must register for AWAS 2700 S01 (CRN 15130)

Slavic Languages

CZCH 0100. Introductory Czech.
Introduces the performance of basic tasks in Standard Czech, highlights of Czech culture, and a worldview of a nation uniquely located on the threshold of western and eastern Europe. Emphasis on oral communication. Five meetings per week and use of audio/visual materials. Enrollment limited to 18
Spr CZCH0100 S01 25570 MWF 2:00-2:50(07) (M. Fidler)

CZCH 0610C. Czech Cultural Icons, Emblems, and National Identity.
The "most famous Czech" Jára Cimrman and his most active period, namely the late 19th to early 20th-century Bohemia. Highlights of Czech cultural icons and emblems, and discussions on what constitutes Czech national identity reflected in the Cimrman phenomenon. Readings on several Czech cultural icons. Two different sets of requirements for students of two language proficiency levels. The course is for students who have completed CZCH 0410 or the equivalent. Enrollment limited to 18
Spr CZCH0610CS01 24839 Arranged (M. Fidler)

Polish

PLSH 0150. Introductory Polish.
Introduction to Polish language and culture. Oral and written communication in Polish; emphasis on the literary and everyday culture of Poland. Five meetings per week, plus use of audio, video, and web materials. Enrollment limited to 18
Spr PLSH0150 S01 25382 TTh 12:00-12:50(12) (M. Harrison)
Spr PLSH0150 S01 25382 MWF 10:00-10:50(12) (M. Harrison)

PLSH 0410. Intermediate Polish.
This course is for students who have completed first-year Polish. In this course you will further develop skills in speaking, reading, writing and understanding Polish. By the end of this course, you will be able to carry on basic conversations in Polish on many topics from your daily life. You will be able to write notes and simple letters to Polish friends or keep a journal in Polish. You will also have the skills to read basic texts. Prerequisite: PLSH 0150. Enrollment limited to 18. DVPS
Fall PLSH0410 S01 16044 MWF 11:00-11:50(12) (M. Harrison)

Russian

RUSS 0101. Introductory Russian.
Introduction to Russian language and culture. Oral and written communication in Russian; emphasis on the literary and everyday culture of Russia and the former U.S.S.R., including the changes that have reshaped everyday life for citizens of Russia. Five meetings per week, plus use of audio, video, and web materials. Enrollment limited to 18
Fall RUSS0100 S01 15077 MWF 9:00-9:50(17) (L. Debenedette)
Fall RUSS0100 S01 15077 TTh 12:00-12:50(17) (L. Debenedette)
Fall RUSS0100 S02 15583 MWF 11:00-11:50(17) (L. Debenedette)
Fall RUSS0100 S02 15583 TTh 12:00-12:50(17) (L. Debenedette)

RUSS 0110. Intensive Russian.
Intensively-paced introduction to Russian culture and language; completes one year of study in one semester (RUSS 0110 = RUSS 0100-0200). Comprehension and use of contemporary Russian; fundamentals of Russian grammar; vocabulary acquisition; focus on oral communication. Introduces aspects of everyday culture of Russia and the former U.S.S.R. Ten to fifteen hours weekly work outside the classroom. Enrollment limited to 18
Spr RUSS0110 S01 24391 MWTThFr 12:00-12:50(03) (L. Debenedette)
Spr RUSS0110 S01 24391 MWF 10:00-10:50(03) (L. Debenedette)

RUSS 0200. Introductory Russian.
Introduction to Russian language and culture. Oral and written communication in Russian; emphasis on the culture of Russia and the former U.S.S.R., including the changes that have reshaped everyday life for citizens of Russia. Five meetings per week, plus use of audio, video,
RUSS 0300. Intermediate Russian.
Continues development of language proficiency while broadening understanding of contemporary Russian culture via readings in literature and history. Expansion of vocabulary for dealing with conversational topics and review of Russian grammar. Features literary and nonliterary readings in Russian, as well as video and computer resources. Five class meetings per week. Prerequisite: RUSS 0200 or RUSS 0250 or placement by exam. Enrollment limited to 18

Fall RUSS0300 S01 15078 MWF 11:00-11:50(04) (L. Debenedette)
Fall RUSS0300 S01 15078 TTh 9:30-10:20(04) (L. Debenedette)

RUSS 0320A. Dostoevsky's "The Brothers Karamazov" - The Art of the Novel.
An in depth analysis of Dostoevsky's last novel as the culmination of his art and thought. Central religious and philosophical themes of the genre of the novel. Readings from literary criticism and from other pertinent literary texts, such as the Bible, Schiller, and Voltaire will also be discussed. In English. Enrollment limited to 20 first year students. FYS

Fall RUSS0320A S01 14946 M 3:00-5:20(13) (S. Evdokimova)

RUSS 0400. Advanced Russian.
Continues development of language proficiency while broadening understanding of Russian culture via readings in literature and history. Includes expansion of vocabulary for dealing with conversational topics and review of Russian grammar. Features literary and nonliterary readings in Russian, as well as video and computer resources. Five class meetings per week. Prerequisite: RUSS 0300 or placement by exam. Enrollment limited to 18

Spr RUSS0400 S01 24393 MWF 11:00-11:50(04) (L. Debenedette)
Spr RUSS0400 S01 24393 TTh 9:30-10:20(04) (L. Debenedette)

RUSS 0500. Advanced Russian.
Examines selected topics in Russian culture and history as depicted in readings, the media, and Russian and Soviet films. Language work emphasizes increasing facility with spoken Russian and developing writing skills. Includes work on advanced grammar and syntax. Five class meetings per week. Prerequisites: RUSS 0350 or RUSS 0400 or placement. Enrollment limited to 18

Fall RUSS0500 S01 15079 TTh 1:00-1:50(06) (L. Debenedette)
Fall RUSS0500 S01 15079 MWF 1:00-1:50(06) (L. Debenedette)

RUSS 0600. Advanced Russian.
Examines selected topics in Russian culture and history as depicted in readings, the media, and Russian and Soviet films. Language work emphasizes increasing facility with spoken Russian and developing writing skills. Includes work on advanced grammar and syntax. Four class meetings per week. Prerequisites: RUSS 0500 or placement. Enrollment limited to 18

Spr RUSS0600 S01 24394 TTh 1:00-1:50(06) (L. Debenedette)
Spr RUSS0600 S01 24394 MWF 1:00-1:50(06) (L. Debenedette)

RUSS 0930. Cultures and Literatures of the Russian and Soviet Empires.
Examines in depth various topics that constituted the cultural and literary landscape of the Soviet Union, examining their antecedents in the Russian empire and their reemergence in the post-Soviet world. Topics include: the Caucasus, from Tolstoy to modern Chechnya; Orientalism; the Civil War and Pasternak; Akhmatova and the experience of the totalitarian state. Enrollment limited to 30

Spr RUSS0930 S01 24259 MWF 12:00-12:50(05) (C. Carey)

RUSS 1110. Special Topics in Russian Studies I: Advanced Reading and Conversation.
An advanced course recommended for students who are either planning to go or are returning from abroad. Focus on Russian culture as seen through the prism of Russian poetry. Extensive classroom discussion and frequent writing assignments. Prerequisite: RUSS 0600 or written permission. May be repeated once with permission of the instructor. Enrollment limited to 18

Fall RUSS1110 S01 15080 MWF 12:00-12:50(12) (L. Debenedette)

RUSS 1120. Special Topics in Russian Studies II: Advanced Reading and Conversation.
A continuation of Russian 1110. Examines aspects of Russian culture as manifested in Russian literature. Readings range from fairy tales to contemporary works. Extensive classroom discussion and frequent writing assignments. Prerequisite: RUSS 1110, 1700, or written permission. May be repeated once with permission of the instructor. Enrollment limited to 18

Spr RUSS1120 S01 24395 Arranged (L. Debenedette)

RUSS 1200. Russian Fantasy and Science Fiction.
Survey of Russian literature, from fairy tales, utopias, and dream sequences to science fiction, which depict altered states of reality. Readings in English, supplemented with films in March and April. Seminar with emphasis on discussion. Russian concentrators and graduate students expected to cover most of the readings in Russian. Familiarity with Russian literary history is not required

Spr RUSS1200 S01 24265 TTh 10:30-11:50(09) (A. Levitsky)

RUSS 1250. Russian Cinema.
This seminar will provide a chronological overview of Russian cinema from its beginning to the present. The films will be considered against the backdrop of some historical, political, and theoretical readings. The students will also be encouraged to juxtapose Russian and non-Russian films in order to evaluate the place of Russian cinema within a global film culture. Enrollment limited to 20

Fall RUSS1250 S01 16056 Th 4:00-4:20(15) (V. Golstein)

RUSS 1290. Russian Literature in Translation I: Pushkin to Dostoevsky.
Survey of major works of Russian literature of the early and mid-19th century. Authors to be studied include Karamzin, Pushkin, Lermontov, Gogol, Turgenev, Leskov, and Dostoievsky. Lectures and discussion. No knowledge of Russian required. Discussion sections to be arranged. WRIT

Fall RUSS1290 S01 14848 TTh 10:30-11:50(06) (A. Levitsky)

RUSS 1300. Russian Literature in Translation II: Tolstoy to Solzhenitsyn.
Survey of major works of Russian literature of the late 19th and 20th centuries. Traces the development of Russian literature from realism to symbolism and decadence, from revolutionary experiments to socialist realism and dissent. Authors to be studied include Tolstoy, Chekhov, Solzhenitx, Blok, Mayakovsky, Babel, Olesha, Zamiatin, Bulgakov, and Solzhenitsyn. Lectures and discussion. No knowledge of Russian required. Discussion sections to be arranged. WRIT

Spr RUSS1300 S02 25204 TTh 1:00-2:20(10) (V. Golstein)

A survey of contemporary Soviet and post-Soviet literature in translation from the death of Stalin through the Glastnost era to the present. Includes prose writers and poets as well as women writers and authors from non-Russian republics. Texts by Anissimov, Aksyoyev, Bitov, Evdushenko, Ibragimbekov, Iskander, Makine, Makanin, Nagibin, Petrushevskaya, Rasputin, Shukshin, Sokolov, Soloukhin, Solzhenitsyn, Tolstaya, Trifonov, Ulitskaya. Enrollment limited to 30

Spr RUSS1330 S01 24260 MWF 2:00-2:50(07) (C. Carey)

RUSS 1470. New Russia: Culture and Politics in Post-Soviet Space.
Political and cultural aspects of transition from the authoritarian Soviet state to democracy. This transition will take considerable effort and time and will require change in people's mentality. Enrollment limited to 20

Fall RUSS1470 S01 16118 T 4:00-6:20(15) (S. Krushchew)

RUSS 1810. Tolstoy.
Close readings of Tolstoy's major novels (War and Peace and Anna Karenina, in particular) and shorter narratives with special emphasis on his iconoclastic ideas about art, religion, and society. Considers Tolstoy's formal innovation in a broader historical and cultural context. Lectures and discussion. No knowledge of Russian required

Spr RUSS1810 S01 24262 TTh 2:30-3:50(11) (S. Evdokimova)
RUSS 1820. Dostoevsky
An examination of Dostoevsky’s major texts tracing his development as an artist, thinker, and religious visionary. The texts will be considered against the background of literary and cultural history of Dostoevsky’s period. No knowledge of Russian required. WRIT
Fall RUS1820 S01 14951 TTh 1:00-2:20(10) (V. Golstein)

RUSS 1840. Nabokov.
The course examines Vladimir Nabokov’s (1899-1977) major achievements in prose in both Russian and American periods, paying particular attention to their cultural context (Russian émigré culture of the 1920s and 30s); the questions of his aesthetics, ethics, and metaphysics, as well as his engagement in the dialogue with other European modernist writers, especially with the existentialists. Readings include Nabokov’s selected short stories and novels, such as The Defense, Invitation to a Beheading, Despair, The Eye, The Gift, Pnin, or Lolita. In English
Spr RUS1840 S01 25984 MWF 2:00-2:50(07) (M. Oklot)

RUSS 1895. Mikhail Bakhtin.
More than any other single figure in Russia, the literary critic Mikhail Bakhtin has changed the course of humanistic scholarship. Writers as diverse as Jacques Derrida, Julia Kristeva, Umberto Eco and the British Marxist Terry Eagleton have claimed him as a decisive influence. His writings manifest and extraordinary range of interests and approaches, including Neo-Kantian philosophy, early structuralist linguistics, the theory of novelistic discourse as a polyphonic medium, and conception of carnival as a subversive cultural force. In this course we will assess the significance and extent nature of Bakhtin’s influence, and apply his ideas and methodologies
Spr RUS1895 S01 25981 Arranged ‘To Be Arranged’ (V. Golstein)

RUSS 1917. Communism and Soviet Literature.
The purpose of the course is to objectively study Marxist thought and its implementation by Soviet Literary practitioners. Clichés of the Cold War – presenting Soviet artistic experience as either a Big Truth or Big Lie -- will be stripped in favor of a fresh evaluation. We will consider salient writings of the Marxist canon, then examine Soviet creative output as it strove to embody Marxist ideals within artistic idiom. While the empty slogans, downright lies, and delusions of Soviet Communism are by now obvious, its aspirations and genuine feelings need to be re-examined. Enrollment limited to 20. DVPS LILE WRIT
Spr RUS1917 S01 25983 M 3:00-5:20(13) (V. Golstein)

Independent research project on topics related to Russian culture. Enrollment permitted only after the written proposal (instructions in the department office) is submitted to the Concentration Advisor and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Please check Banner for the correct section number and CRN to use when registering for this course. Each section limited to 10 students; instructor permission required
Fall RUS2010 S01 14949 W 3:00-5:20(14) (A. Levitsky)

RUSS 2720A. Seminar in Russian Literature: Russian Decadent and Symbolist Literature.
This course explores Russian Decadent and Symbolist literature, and its cultural and philosophical (e.g., Schopenhauer, Nietzsche, or Solovev) foundations. The analyzed works represent the achievements of two overlapping movements in the genres of the long narrative poems, the drama, the short story, the essay, and, first of all, the novel. The authors include: Solovev, Sologub, Ivanov, Kuzmin, Blok, Bely, Briusov, Merezhkovskii. In English. Open for undergraduate and graduate students
Spr RUS2720AS02 24835 Th 4:00-6:20(15) (M. Oklot)

RUSS 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

RUSS 2980. Advanced Reading and Research.
Only for graduate students. Independent research project on topics related to Russian culture. Enrollment permitted only after the written proposal (instructions in the department office) is submitted to the DGS and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Please check Banner for the correct section number and CRN to use when registering for this course. Each section limited to 10 students; instructor permission required

RUSS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

Slavic

An exploration of the mythopoetic universe of Prague and Petersburg through literature and film. Both - one, ancient, the other “modern” - served at one point of the historical continuum as capitolis of multinational empires (Holy Roman and Russian), yet also as loci of national identity, both factors thus contributing to their respective enigmatic states. The course will attempt to identify these enigmas and discuss their possible futures in the global polity and culture. Enrollment limited to 20 Spr SLAV1770 S01 25202 W 3:00-5:20(14) (A. Levitsky)

Independent research project on topics in Slavic Studies. Enrollment permitted only after the written proposal (instructions in the department office) is submitted to the Concentration Advisor and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Please check Banner for the correct section number and CRN to use when registering for this course. Each section limited to 10 students; instructor permission required

Independent research on various topics in Slavic cultures. Reading, discussion, research must be done in the chosen Slavic language (Czech or Russian). Close work with faculty on project is expected. Prerequisites: minimum RUSS6000/ CZCH 0610 (3rd year-level) or placement evaluation by Russian or Czech language coordinator. Enrollment permitted only after the written proposal (instructions in the department office) is submitted to the Concentration Advisor and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Each section limited to 10 students; instructor permission required

Only for Slavic concentrators writing their senior theses. For requirements and schedule, contact the department. Each section limited to 10 senior Slavic Studies concentrators

SLAV 2210. Old Church Slavonic.
Introduction to Church Slavonic philology. Structural analysis of Old Church Slavonic texts Spr SLAV2210 S01 24838 Arranged (M. Fidler)

SLAV 2450. Exchange Scholar Program.

SLAV 2470. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

SLAV 2980. Advanced Reading and Research.
Only for graduate students. Independent research project on topics in Slavic Studies. Enrollment permitted only after the written proposal (instructions in the department office) is submitted to the DGS and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Please check Banner for the correct section number and CRN to use when registering for this course. Each section limited to 10 students; instructor permission required

SLAV 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis
SLAV XLIST. Courses of Interest to Concentrators in Slavic Languages.
Fall 2012
The following courses may be of interest to Slavic Languages concentrators. Please see the sponsoring department for the time and location of each course.

**History**
- HIST 1410 Russia in the Age of Reforms, Revolutions and World Wars (1855-1945)
- HUMAN 1970F Pain in Polish and Russian Twentieth-Century Literature
- Theatre Arts and Performance Studies
  - TAPS 1430 Russian Theatre and Drama

**Spring 2013**
The following courses may be of interest to Slavic Languages concentrators. Please see the sponsoring department for the time and location of each course.

**History**
- HIST 1420 The End of Soviet Socialism and the Rise of New Russia (1945-present)

**Judaic Studies**
- JUDS 0980X Introduction to Yiddish Language and Culture

**Sociology**

**SOC 0010. Perspectives on Society.**
An introduction to the discipline of sociology from a macro perspective. Students explore how different sociological paradigms lead to contrasting understandings of capitalism, the state, class, race, and gender. In addition, students learn new ways to think about social problems in the United States, in the developing world, and in world history. Instructor: Luke. Enrollment limited to 20 first year students. FYS WRIT

**SOC 0130. American Heritage: Democracy, Inequality, and Public Policy.**
America professes equality but exhibits many forms of inequality in schools, race relations, and income. An examination of contrasting elements of American society and a review of the race social science plays in public debate. To illuminate the debates, key topics, such as welfare, immigration, affirmative action, and environmental equity are considered. Instructor: N. Luke. Fall 2013. MWF 2:00-2:50(07)

**SOC 0170. The Family.**
The state of the contemporary family generates debate within and beyond sociology. That debate is considered by examining different definitions of family, changing gender roles within the family, and the family in cross-cultural context. Special issues include new family forms, such as gay and lesbian families and biological and step-parenthood, as well as changing patterns of work and housework. Instructor: C. Spearin. Fall 2013. MWF 10:00-10:50(03)

**SOC 0270. The Sociology of Imagination.**
Sociology is a study of the course and effect of social action. Sociologists study human societies by researching social groups, patterns, interactions, and institutions. This course introduces students to the discipline of sociology with the hope of showing students that, as Peter Berger states, “things are not what they seem.” In other words, in this class students will learn to rethink several assumptions about society that are commonly taken for granted. The course strives to make the strange familiar, and the familiar strange. Instructor: R. Smith. Fall 2013. MW 8:30-9:50(02)

**SOC 0300D. Who Am I?**
A study of self in contemporary society. We examine the structural and situational forces that shape the self and their impact on personal development, orientations to the world, and interpersonal behavior; we investigate the development of the self as a way of being in the world that makes everyday doings and, ultimately society, possible. Enrollment limited to 20 first year students. Instructor permission required. FYS WRIT Fall 2013. TTh 9:00-10:20(08)

**SOC 0300E. HIV/AIDS: Politics, Culture and Society.**
The current HIV/AIDS crisis is not merely medical. It also involves fundamental political, social and economic issues. Through extensive readings, class discussions and the writing of research papers, we will explore issues such as, what are the sociological barriers to changing sexual behavior? Why do some government, but not others, fail to commit resources to fight the disease? How was improved access to expensive drugs achieved? Instructor permission required. Enrollment limited to 20 first year students. FYS WRIT Spr 2013. MWF 3:00-5:20(13)

**SOC 0300F. Unequal From Birth: Child Health From a Social Perspective.**
Why are the children of immigrants so healthy? How do experiences in families, schools, neighborhoods and the health care system produce unequal health? What are the consequences of health for the economic and social welfare of individuals and populations? We will read, discuss and evaluate social science evidence to understand how social and economic inequalities produce and result from health inequalities among youth. Attention will be given to both industrialized and developing societies, and to potential ways that social policies can equalize children’s health. This course is designed for first-year students and should appeal to a variety of interests, including social justice, medicine, research and law. Enrollment limited to 20 first year students. FYS WRIT Spr 2013. MWF 3:00-5:20(14)

**SOC 0300G. Populations in Danger.**
Examines populations confronted with dangerous social, economic, political, or health crises. These include small Amazon farmers in situations of environmental degradation, Catholics and Protestants in Northern Ireland in economic and social conflict and under peace agreement, Israelis under threat of random attack with neighbors who demand Israel’s extinction, Palestinians under Israeli occupation with a largely powerless and corrupt Palestinian Authority, South Africans under HIV/AIDS pandemic, and undocumented Dominican immigrants in Providence. The seminar will include readings on these populations in danger, lectures by internationally known experts, student presentations and class discussion, and three short essays. Enrollment limited to 20 first year students. Instructor permission required. FYS WRIT Spr 2013. M-F 4:00-6:20(15)

**SOC 0300J. Becoming Adults: Adolescent Transitions to Adulthood.**
Adolescence and early adulthood is a critical period in our lives. During this time we experience a number of major life events that mark the transition into adult roles and relationships, and that are of major consequence for the rest of our lives. We leave school, start working, form romantic relationships, begin sexual activity, leave home, become financially independent, get married, and start having children. This seminar explores how adolescent transitions are studied, how they compare across different national contexts, and how individual, family, and community factors affect the type and timing of different transitions. Enrollment limited to 20 first year students. FYS WRIT Fall 2013. MWF 14:43 M 3:00-5:20(13)

**SOC 0300K. Inequalities and Health.**
We start from the assumption that the social organization of society shapes definitions and experiences of health and illness, the distribution of diseases, and the responses to them. We explore the relevance of social structure and social interaction to health and well-being, emphasizing sociological status, race, ethnicity, gender, and social contexts such as relationships, families, schools, and neighborhoods. This is not a "sociology of medicine" course. It will not emphasize the profession of medicine, health care policy, or health care organizations. Enrollment limited to 20 first year students. Instructor permission required. FYS WRIT Spr 2013. T/Th 3:00-5:20(15)

**SOC 0300L. Environment and Society in Africa.**
This seminar will actively examine the complexities of environmental issues in Africa. The African setting is a key site for the world’s environmental challenges and policies, with a large number of highly visible and valued flora, fauna, and ecosystems. At the same time, Africa nations are severely pressed with competing social issues: poverty, economic development, health, refugees. How can these be reconciled? What roles do the many actors play? This course is multidisciplinary in orientation and broad in scope geographically. Seminar discussion admits a variety of perspectives. Readings span a wide variety of approaches. Enrollment limited to 20 first year students. S/NC. FYS Spr 2013. MWF 3:00-5:20(14)

**SOC 1010. Classical Sociological Theory.**
Why do we follow social rules and conventions? And how is social change – that is, the making of new rules and expectations – possible?
When we respond to rules, do we act as free-willing individuals or do we follow social structures we have no control over? These questions have motivated generations of sociologists, but many of the arguments have been already developed by the four "forefathers" of sociology: Karl Marx, Max Weber, Émile Durkheim, and Georg Simmel. Looking at the transformations around them – the rise of capitalism, the modern nation-state, rational bureaucracy, the metropolitan, the decline of religion, and much more – they developed arguments that allow us to better understand ourselves, our actions, and the contemporary political, economic, and social transformations around us. WRIT

**SOC 1020. Methods of Social Research.**

This course introduces students to the frameworks and methods of conducting sociological research -- from both a qualitative and quantitative perspective. The aim is that students develop the skills to ask and answer interesting and important questions about sociological phenomenon. The focus is on designing and executing research, from identifying an interesting question and reviewing the relevant literature, to collecting and analyzing data, to drawing reliable inferences and presenting meaningful results. There is a heavy focus on reading and discussing academic research and working in research teams. By the end of the semester students will complete their own research projects.

Fall SOC1020 S01 14429 MWF 11:00-11:50(04) (C. Spearin)

**SOC 1060. Leadership in Organizations.**

What is leadership? What makes a great leader? Can leadership be learned? Improved? This course explores various theoretical approaches to leadership using a combination of lectures and case-study analysis. Additionally, it aims at developing your personal leadership skills by using self-exploration and reflection, self-assessment instruments, role-play, and feedback from peers. Enrollment limited to 100.

Fall SOC1060 S01 16272 MW 6:30-7:50(18) (O. Sharga)

**SOC 1080. Groups in Organizations.**

Teamwork has become increasingly popular in organizations. Whether structured into the organizational makeup, or temporarily established around specific projects, teams are a critical competency of organizations. They are considered an effective performance unit, and expected to efficiently cope with the fast changes and demands of today’s corporate environment. However, deriving the full benefits from teamwork requires correct management of its processes and dynamics. This course dwells on selected issues in team development, internal processes, and members’ behavior, as well as management skills needed to effectively lead teams; therefore it can benefit anyone who works in a group, whether as a student or in the business world. Enrollment limited to 35.

Fall SOC1080 S01 14941 TTh 6:30-7:50(14) (O. Sharga)

**SOC 1100. Introductory Statistics for Social Research.**

Introduction to descriptive and inferential statistics: measures of central tendencies and variability, sampling, tests of significance, correlation, and regression. Also includes the use of computers in data analysis. Knowledge of elementary algebra is assumed. Enrollment is limited to 144 students.

Fall SOC1100 S01 14005 TTh 10:30-11:50(09) (M. Jackson)

Spr SOC1100 S01 23710 TTh 10:30-11:50(09) (D. Lindstrom)

**SOC 1117. Focus Groups for Market and Social Research.**

This course introduces students to a range of qualitative research methods commonly used in market and social science research. It is designed to provide students with a skill set that will allow them to conduct and design market and social research that gets below the surface of the traditional survey. Focus groups, ethnographic observation and user-centered research are widely used in product design, communications, marketing and entrepreneurship research. Students will learn and practice all of the methods introduced in the course by conducting a semester-long research project, will gain insight into which methods are most appropriate for particular research needs.

Fall SOC1117 S01 15988 TTh 6:30-7:50(14) (L. Dicarlo)

**SOC 1120. Market and Social Surveys.**

This course covers the theory and practice of survey research. Topics include questionnaire design and formatting; sample design and selection; interviewing techniques; data base design and data entry; and elementary data analysis and report production. Students individually design and conduct a survey on a topic of their choice, and collectively conduct and analyze a sample survey of the Brown student population. Prerequisite: SOC 1100 or equivalent.

Spr SOC1120 S02 23845 MWF 11:00-11:50(04) (C. Spearin)

**SOC 1240. Human Sexuality in a Social Context.**

How do we come to know ourselves as sexual beings? How do individuals develop attractions, make sexual choices, define and enact their own sexuality? What is social about sexuality, and how do institutions and organizations influence understandings of human sexuality over time? This course investigates these questions by examining the processes through which the human body is sexed, from without, by the society into which it is born, and from within, through self-definition, desire, and practice. Social science theories of sexuality will be considered, and cross-cultural and historical accounts of sexual practices will be reviewed. Not open to first year students. WRIT

Fall SOC1240 S01 14422 MWF 10:00-10:50(03) (C. Spearin)

**SOC 1260. Market Research in Public and Private Sectors.**

Introduction to data and research methods for private and public sector organizations. Data used in market research include trends in the population of consumers, economic trends, trends within sectors and industries, analyses of product sales and services, and specific studies of products, promotional efforts, and consumer reactions. Emphasizes the use of demographic, GIS, and other available data.

Fall SOC1260 S01 14292 MWF 9:00-10:20(08) (D. Hogan)

**SOC 1270. Race, Class, and Ethnicity in the Modern World.**

Applies sociological analysis to understand present and historical cases of ethnic and race relations and conflicts. Topics addressed are the social construction of race and ethnicity; historical processes of racialization; ethnic conflict and the nation state; and the linkages between race, class, and social mobility. Focuses on racial and ethnic relations in the U.S., but also has a strong international comparative component.

Fall SOC1270 S01 14293 MWF 12:00-12:50(12) (J. Itzigsohn)

**SOC 1311. Micro-Organizational Theory: Social Behavior in Organizations.**

Micro-Organizational Theory focuses on the human dynamics of organizations as natural systems. It examines how individual attitudes, actions, and interactions make a difference for organizational processes and outcomes. This focus is contrasted with more macro-level approaches, which take the organization (instead of the individual) as the primary unit of analysis. For example, studies from an economic perspective are typically concerned with the performance of the organization relative to its competitors. Studies of organizations from a more micro-sociological focus are typically concerned with an organization's routines and structures, contextualized by the broader environment. SOC 1311 takes a more micro and meso perspective that asks questions such as, "why do individuals in organization behave the way they do, how does this affect the organizations of which they are a part and how, in turn, are individuals affected by their organizations?"

Fall SOC1311 S01 15380 MWF 1:00-1:50(06) (A. Dill)

**SOC 1315. Macro-Organizational Theory: Organizations in Social Context.**

This course examines the growing body of theoretical and empirical research on the sociology of organizations. Lectures and discussions will cover a wide range of perspectives and draw examples from a wide range of organizational settings -- corporations, non-profits, political parties, public agencies, the military, professions, and voluntary associations. The goal is to survey the many different ways in which sociologists think about and study organizational life. Optional readings and assignments will also allow students to develop a more intensive command of specific sub-fields, should they wish to do so.

Spr SOC1315 S01 24671 MWF 1:00-1:50(06) (M. Fennell)

**SOC 1330. Remaking the City.**

Cities are being reshaped by immigration, economic restructuring, and other forces. This course reviews these changes from several perspectives, including the patterns and causes of change, the role of politics and public policy, and how different groups of people (by class, race, and national origin) manage under the new conditions. Readings will emphasize historical and cross-national comparisons.
### SOC 1330. Social Structure and Personal Development.
The relationship between one’s place in the social structure and one’s own personal growth. Investigates the social aspects of individual growth and change throughout the life course. Also examines social factors involved in the failure to find a meaningful place for oneself in society. WRIT

Fall: SOC1330 S01 15992 MWF 2:00-2:50(07)  
(G. Elliott)

### SOC 1440. Intimate Violence.
Explores sociological perspectives of violence in intimate relationships. Begins with theories of violence, including social learning theory, the frustration-aggression hypothesis, and violence as catharsis. Examines the contributions of gender, race status, media violence, and pornography to the issue. Investigates specific forms of intimate violence: sexual aggression (including "acquaintance rape"), partner abuse, elderly abuse, and child abuse. Not open to first year students

Spr: SOC1440 S01 23857 TTh 2:30-3:50(11)  
(G. Elliott)

### SOC 1550. Sociology of Medicine.
The sociopolitical context within which health, illness, and medical care are defined. Sociological materials are used to examine current developments in the health care field. Emphasis on identifying social and political forces that impinge upon the delivery systems and tracing their impact on the roles of practitioners and the health of their clients

Spr: SOC1550 S01 23757 MWF 9:00-9:50(02)  
"To Be Arranged"

### SOC 1620. Globalization and Social Conflict.
Examines the effect globalization is having on the economies and societies of the developed and developing world. Focuses in particular on how new forms of global production and networking are transforming the traditional role of the nation-state, creating new dynamics of wealth distribution, and generating new sources of social conflict and political contestation, including transnational social movements. WRIT

Spr: SOC1620 S01 23806 MWF 12:00-12:50(05)  
"To Be Arranged"

### SOC 1670A. Investing in Social Change.
Philanthropy -- "giving away money" -- sounds attractive and simple. But the very acts of contributing and receiving resources affect dynamics and relationships among all involved. This course explores philanthropic strategies, social change, and the sociological dimensions of philanthropy in historic and current practice. Students engage in teams to investigate a particular community concern, design an investment strategy, and recommend the investment of grant dollars. Course enrollment is by application only. Applications can be found at swearencenter.brown.edu shortly before the start of class. Students who pre-register must still complete the application process and attend the first class meeting. Instructor permission required. Enrollment limited to 12. WRIT

Fall: SOC1670A S01 14298 TTh 2:30-3:50(11)  
(A. Dill)

### SOC 1700K. Demographics and Development.
Assesses the social and economic determinants and consequences of changes in fertility, mortality, and migration and their impact on the size, distribution, and composition of population in developing societies. Implications of the evolving population structure for planning and policy. Enrollment limited to 20. WRIT

Fall: SOC1870K S01 14435 Th 4:00-6:20(15)  
(M. White)

### SOC 1707S. Sociology of Gender.
Gender is among the most prominent organizing principles in our society. From the day they are born—and even earlier as the result of reproductive technologies—on through to the day they die, individuals are gendered. Instead of understanding gender as a set of behaviors derived from innate, fixed biological differences between men and women, this course analyzes gender as a social arrangement shaped by social actors, organizations, and institutions. Drawing from social science research, the course analyzes everyday interactions of intimacy, language, and identity issues, as well as macro structures like the economy, religion, and education, to understand how they affect notions of gender. The course sustains an analysis of sexuality because ideas of femininity and masculinity are constructed around notions of “appropriate” sexual conduct and relations. Although this course focuses on everyday life in this country, the class will explore the production and institutionalization of gender relations in historical moments and spaces beyond the U.S. Enrollment limited to 20 juniors and seniors

Fall: SOC1870S S01 14366 T 4:00-6:20(15)  
(R. Smith)

### SOC 1871B. Sociological Perspectives on Poverty.
Examines the personal experiences of socioeconomic status, with focus on the lower tiers of the hierarchy. We distinguish three levels of poverty: the working poor, marginal workers, and the underclass. Analysis will make use of issues of gender and family, race and ethnicity, and urban and rural settings. We investigate sociological perspectives on the problem of homelessness. Enrollment limited to 20

Spr: SOC1871B S01 25332 W 3:00-5:20(14)  
(G. Elliott)

### SOC 1871D. Sophomore Seminar in Sociology of Development.
This seminar provides an introduction to the study of development. It looks at the diversity of understandings of the concept of development as well as its practical importance in the world. Students will read texts that present pressing questions and issues concerning development practices, policies, and theories. Efforts to connect broad theoretical debates to understanding contemporary problems will be encouraged. Enrollment limited to 20 sophomores. WRIT

Spr: SOC1871D S01 23760 M 3:00-5:20(13)  
(J. Itzigsohn)

### SOC 1871F. Principles and Methods of Geographic Information Systems.
An introduction to the fundamental principles and methods of geographic information systems (GIS). Topics include (a) handling different types of geographic datasets, (b) geo-analytical and modeling tools in GIS, (c) conceptual and theoretical aspects of GIS application development, and (d) errors and uncertainty analysis of GIS applications. Laboratory assignments and the project work provide hands on experiences in GIS. Enrollment limited to 15 juniors and seniors. Instructor permission required. WRIT

Fall: SOC1871F S02 15967 W 3:00-5:20(14)  
(R. Franklin)

### SOC 1871N. Military Health: The Quest for Healthy Violence.
As an institution, the military trains individuals to conduct violence while remaining, at least ideally, healthy. From the standpoint of the organization, the successful soldier is someone who is good at violence at the same time that he or she is mentally and physically fit. Enrollment limited to 20

Spr: SOC1871N S01 23758 T 4:00-6:20(15)  
(R. Smith)

### SOC 1871P. Field Methods in Development Research.
An introduction to the various techniques of field methods in development research, with a focus on qualitative and field methods

Spr: SOC1871P S01 23972 Th 4:00-6:20(15)  
(G. Baiocchi)

### SOC 1871R. Knowledge Networks and Global Transformation.
How do refined knowledge and the social relations that organize and distribute it influence changes in the institutions, inequalities and cultural systems and practices that define particular world regions and global formations? And how do global transformations influence the trajectories of knowledge production themselves? We will examine particular knowledge-identified agents, including universities, research institutes, think tanks, and professional associations, to consider how they approach global transformations in the way that they do. And we will consider how particular kinds of global transformations, from the end of the cold war and the transformation of information/communication technology to the last financial crisis, affect knowledge production itself. By exploring intersections between global complexity and reflexivity in this fashion, we hope to increase our own capacities for seeing the world not only as it is, but how knowledge might be used in making better alternatives for the future. Enrollment limited to 20 juniors and seniors. WRIT

Fall: SOC1871R S01 16391 Th 4:00-6:20(15)  
(M. Kennedy)

### SOC 1871S. Legacies of Inequality: The U.S. and Beyond.
Does education equalize or widen gaps between people and nations? Has mass imprisonment reduced crime or exacerbated U.S. racial inequality? Does biology determine destiny, or is society more fluid? This course introduces theory and research on social inequality, emphasizing theoretical dimensions of social differentiation. Attention will be paid to the characteristics we are given (race, sex), those we achieve (education, income), and institutions and policies we encounter throughout the life cycle (schools, the justice system). By understanding the complexities of social inequality and the challenges of devising solutions, students...
will leave as informed citizens, better equipped to enter any profession. Enrollment limited to 20. First-year students require instructor permission.

Spr SOC1871S S01 23859 Th 4:00-6:20(15) (M. Jackson)

SOC 1871V. Update on American Society: Social Trends in the Last Decade.
American society is always changing, and national data sources (especially the American Community Survey and Current Population Survey) provide updated information on social trends every year. This course will review the most significant recent social trends based on these sources, including such topics as income and wealth inequality, racial and ethnic change, immigration, marriage, and family patterns, home ownership, and residential segregation. Enrollment limited to 30 juniors, seniors, and graduate students.

Fall SOC1871V S01 14295 M 3:00-5:20(13) (J. Logan)

SOC 1871W. Geographical Analysis of Society.
Provides an introduction to a geographical approach to understanding the spatial organization of individuals, societies, and economies. The two main emphases are on theories/concepts and applied analytical tools. We will learn about key theories in geography, sociology, and economics that have attempted to organize and classify the spatial structures and interactions across space of social and economic actors and will work with related analytical techniques. Enrollment limited to 20 juniors, seniors, and graduate students. WRIT

Spr SOC1871W S01 25732 M 3:00-5:20(13) (R. Franklin)

SOC 1950. Senior Seminar.
Advanced research seminar for sociology concentrators in the second semester of work on an honors thesis. Participants examine methods for analyzing, writing, and presenting thesis material and apply peer review techniques in assessing each other’s work. Culminates in presentation of thesis to the department. Students doing independent study research may also participate with the instructor’s permission. Required for “honors” in sociology. WRIT

Spr SOC1950 S01 23794 F 3:00-5:20(15) (M. Kennedy)

Supervised reading or research. Specific program arranged in terms of the student’s individual needs and interests. Required of intensive concentrators; open to others only by written consent of the Chair of the department. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

Research seminar for students writing an honors thesis. Under the direction of a faculty advisor, students construct and carry out a research project. The written report of the research is submitted to the advisor for honors consideration; a second reader selected by the thesis advisor certifies that the thesis is of honors quality. Please check Banner for the correct section number and CRN to use when registering for this course

Research seminar for students writing an honors thesis. Under the direction of a faculty advisor, students construct and carry out a research project. The written report of the research is submitted to the advisor for honors consideration. A second reader selected by the thesis advisor certifies that the thesis is of honors quality. Please check Banner for the correct section number and CRN to use when registering for this course

SOC 2010. Multivariate Statistical Methods I.
Introduction to probability, descriptive statistics and statistical inference. Coverage of the linear model, its assumptions and potential biases. Emphasis on hypothesis testing, model selection and interpretation through application with real data.

Fall SOC2010 S01 14062 Th 2:00-5:00(11) (M. Jackson)

SOC 2020. Multivariate Statistical Methods II.
This course is a graduate-level introduction to multivariate regression models for categorical and limited dependent variables. Subject matter includes modeling nominal and ordinal outcomes; truncated distributions; and selection processes. The course also reviews strategies for sample design; handling missing data and weighting in multivariate models. The course employs contemporary statistical software. Special emphasis is placed on model selection and interpretation. Prerequisite: SOC 2010

Spr SOC2020 S01 23715 F 9:00-12:00(10) (L. Vanwey)

This is a graduate-level course requires students to engage in detailed analysis and critical review of sociological thought of the 19th and early 20th centuries. The class will introduce students to the critical thinking, methodological innovation, and historical imagination of sociological theory by reading the original texts of the forefathers of sociology, including Karl Marx, Max Weber, Emile Durkheim and others.

Fall SOC2040 S01 14064 Th 9:00-12:00(10) (J. Itzigsohn)

SOC 2050. Contemporary Sociology.
This class offers a review of some of the most interesting contemporary social theorists and the most intense debates in current sociological thought. It thematically reviews the works of Jurgen Habermas on the public sphere, Michel Foucault on disciplinary and governmental modes of power, Bruno Latour on modernity and modern science, Pierre Bourdieu on field and habitus and among others. No prerequisites

Spr SOC2050 S01 23712 Th 5:00-8:00PM(15) (N. Chorev)

An advanced introduction to theoretical and substantive issues in the social scientific study of population. Major areas within sociology are integrated with the study of population, including the comparative–historical analysis of development, family processes, social stratification, ethnicity, ecological studies, and social policy. Primarily for first-year graduate students

Fall SOC2080 S01 16267 M 9:00-12:00(02) (D. Hogan)

SOC 2150. Socioeconomic Analysis of Development.
Compares economic and sociological perspectives on the problems of development. Topics include problems of conceptualization and measurement, entrepreneurship, capital accumulation, labor force utilization, income distribution, the role of the state, and the impact of international economic relations on developing countries. Prerequisite: a basic undergraduate micro-macro economics course or permission

Spr SOC2150 S01 26038 Th 2:00-5:00 "To Be Arranged"

SOC 2210. Qualitative Methods.
Emphasis on ethnographic field work through participant observation and interviews. Some attention to content analysis and visual sociology. Technical training in developing observational and interview guidelines, data collection, coding, transcript analysis, and computer applications. Strong emphasis on quality writing. Analysis of ethnographic research in book and article format. Attention to recent developments in ethnography, especially reflexivity and autoethnography

Spr SOC2210 S01 24044 M 2:00-5:00(07) (G. Baiocchi)

SOC 2230. Techniques of Demographic Analysis.
Procedures and techniques for the collection, evaluation, and analysis of demographic data; measures of population composition, fertility, mortality, and migration; construction of life tables, population and projections, population dynamics; responsible use of demographic methodology. Mandatory S/NC

Spr SOC2230 S01 23719 T 1:00-4:00(10) (M. White)

SOC 2320. Migration.
A review of the major patterns and differentials in international and internal migration in cross-cultural perspective. Emphasizes theoretical models of migration. Offered in alternate years

Fall SOC2320 S01 14436 T 9:00-12:00(08) (L. Vanwey)

SOC 2430. Fields and Methods of Social Research.
Introduction to strategies sociologists use to formulate theories and conduct methodologically sound research. Hypothesis formulation and research design; special emphasis on identifying causal mechanisms, techniques of operationalization, and choice of relevant comparisons

Fall SOC2430 S01 14066 M 2:00-5:00(11) (S. Short)

SOC 2450. Exchange Scholar Program.

SOC 2460. Sociology Paper Writing Seminar.
This course is intended to improve writing skills that are especially relevant scholarship in Sociology. Key issues include the logical flow of ideas, awareness of the audience, clarity of expression, completeness, and (because these writing products will be peer reviewed) anticipation of potential reviewers’ objections, and communicating what is new and
interested in the work. Students will be required to provide a draft of a paper or proposal that has potential to develop into a 25-35 page manuscript. The course is open to graduate students in Sociology and to doctoral students in other programs by permission of the instructor. Enrollment limited to 12

**SOC 2500. Teaching Practicum in Sociology.**
No description available
Fall SOC2500 S01 16754 Arranged To Be Arranged

**SOC 2510. Teaching Practicum in Sociology.**
No description available
Spr SOC2510 S01 25788 Arranged To Be Arranged

**SOC 2610. Spatial Thinking in Social Science.**
This course reviews ways in which social scientists have incorporated concepts about space, place, and distance into their theories and research. Examples are drawn from many substantive areas, including the spatial organization of communities, spatial inequalities, and mobility. Separate laboratory meetings introduce methods of spatial analysis encountered in the course readings, including an introduction to GIS and related mapping tools

Fall SOC2610 S01 14294 T 1:00-4:00(10) (J. Logan)

**SOC 2960C. Urban Sociology.**
This course will review alternative theoretical perspectives on urban and regional development with an emphasis on variants of ecological and political economy approaches. Substantive topics will include metropolitan restructuring in the U.S. and abroad, growth politics and growth control, neighborhood social networks and collective action, and incorporation of immigrants and minority groups in the metropolis

Spr SOC2960C S01 23753 W 2:00-5:00(07) (H. Silver)

**SOC 2970. Preliminary Examination Preparation.**
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

**SOC 2980. Reading and Research.**
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

**SOC 2981. Reading and Research.**
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

**SOC 2990. Thesis Preparation.**
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

**SOC XLIST. Courses of Interest to Students Concentrating in Sociology.**

**Fall 2012**
The following related courses, offered in other departments, may be of interest to students concentrating in Sociology. Please see the course listing of the sponsoring department for location and time.

**Spring 2013**
The following related courses, offered in other departments, may be of interest to students concentrating in Sociology. Please see the course listing of the sponsoring department for location and time.

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**Theatre Arts and Performance Studies**

**TAPS 0030. Introduction to Acting and Directing.**
Explores basic acting/directing concepts from a variety of perspectives including the use of the actor’s imagination/impulsivity in the creation of truthful, dramatic performance; the body, as a way of knowing and communicating knowledge; and the voice, as a means of discovering and revealing emotion/thought. Areas of emphasis vary with instructor. Please go to the TAPS website for specifics on admission and the mandatory technical requirement. Some evening hours are required. http://brown.edu/academics/theatre-arts-performance-studies/undergraduate-program/required-course-information. Enrollment limited to 18 first year students. Instructor permission required

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For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
TAPS 0250. Introduction to Technical Theatre and Production.
This course is an introduction to the basic principles of stagcraft, lighting and sound technology and the different elements of theatrical design. Instructor permission required. Enrollment limited to 15.
Fall TAPS0250 S01 15396 MW 12:00-1:50(05) (K. Moore)
Spr TAPS0250 S01 24949 MW 10:00-11:50(05) (K. Moore)

TAPS 0260. Stage Lighting.
This course is an introduction to stage lighting. Enrollment limited to 20.
Fall TAPS0260 S01 15461 TTh 1:00-2:20(12) (L. Marshall)

TAPS 0310. Beginning Modern Dance.
Introduction to the art of movement. Focuses on building a common vocabulary based on ballet, vernacular forms, improvisation, Laban movement analysis, American modern dance, and the body therapies. Individual work is explored. One and one-half hours of class, four days a week. Enrollment limited to 40. S/NC
Fall TAPS0310 S01 15330 MWTh 1:00-2:20(06) (J. Strandberg)

TAPS 0320. Dance Composition.
Focuses on building the individual's creative voice. A movement vocabulary is developed from Western techniques (ballet, American modern dance, Laban/Bartenieff movement analysis, vernacular forms, space-harmony/movement physics, and the body therapies) along with group improvisations and collaboration with artists in other disciplines. Enrollment limited to 40. S/NC
Fall TAPS0320 S01 15328 MW 10:00-11:50(03) (J. Strandberg)

TAPS 0510. Introduction to Shakespeare (ENGL 0400A).
Interested students must register for ENGL 0400A S01 (CRN 14341 for fall 2012; CRN 24601 for spring 2013)

TAPS 0930A. The Actor's Instrument: Voice and Speech.
A complete and well-seasoned actor has the ability to perform with specificity and ease, both vocally and physically. Specificity comes from an integration of speech and movement technique. Ease is only possible when a mastery of technical skills reaches the point where the actor can integrate them without loss of spontaneity. This is a life long process that begins by learning the fundamentals of technique and the continual refinement of them on a personal level. The goal of this class is to give the student the fundamental techniques of voice and speech in relation to the body. In the event of over subscription, student will be enrolled on the basis of seniority. Prerequisite: TAPS 0230. Enrollment limited to 16. Instructor permission required. S/NC
Spr TAPS0930A S01 25192 MW 4:00-5:50(13) (T. Jones)

TAPS 0930C. The Actor's Instrument: Stage Movement for Actors and Directors.
Students will be engaged in a process of exploration that centers on the physical relationship of the actor to the physical reality of the stage including sound, props and costumes. Work with a broad spectrum of contemporary and classic movement theories/approaches to constructing performance. Instructor permission required; interested students must come to the first class, fill out an application and participate in a sample class. Accepted students will be notified by the third class meeting. You must show up to every class meeting in order to keep your application active throughout the registration process. Enrollment limited to 18.
Fall TAPS0930C S01 15400 MW 3:00-5:50(13) (K. Moore)

TAPS 1000. Intermediate Dance.
Designed to expand the student's knowledge of and proficiency in dance as an art form. Mainly a studio course, but selected readings, papers, critiques, and field trips are important components of the course. Prerequisite: TAPS 0310 or equivalent. Enrollment limited to 40. S/NC
Spr TAPS1000 S01 24841 MTWTh 1:00-2:20(06) (J. Strandberg)

TAPS 1100. Stage Management.
To introduce students to the principles and techniques of modern stage management from script selection to closing. Through the study of various models of stage management (both professional and academic), students will develop an appreciation of the role of the stage manager as the facilitator, mediator and organizer of the production process. Students will apply theory learned in the classroom by stage-managing or assistant stage-managing a TAPS production and/or observing other TAPS and Trinity Rep stage managers during the production process. Enrollment limited to 12.
Fall TAPS1100 S01 15458 M 4:00-6:20(13) (B. Reo)

TAPS 1160. Style and Performance.
For qualified sophomores, juniors, and seniors who offer TAPS 0230 as a prerequisite. Period scene study and monologues are basis for comment on individual progress in acting/directing. Extensive reading of dramatic texts and historic research materials. Work in voice, movement, dialect, and poetic text. Substantial commitment necessary for preparation of class scenes. Attendance mandatory. Prerequisite: TAPS 0230. Limited to 20. Instructor's permission required. No permissions will be given during pre-registration; interested students should sign up on the TAPS 1160 waitlist (form is at http://www.brown.edu/Departments/Theatre_Speech_Dance/) and attend the first day of class.
Spr TAPS1160 S01 24958 TTh 1:00-2:20(05) (L. Marshall)
Spr TAPS1160 S01 24958 MW 12:00-1:50(05) (L. Marshall)

TAPS 1210. Solo Performance.
An exploration of the challenges and rewards of performing solo. Students research, write, and perform a one-person show. Other projects may include performance art, stand-up comedy, and monologuing. Substantial time commitment. Attendance mandatory. For advanced students with appropriate background and experience. Submit proposal and resume in the fall. For guidelines and information contact Lowry_Marshall@brown.edu. Permission required in advance. Enrollment limited to 20.
Spr TAPS1210 S01 25008 TTh 2:30-3:50(07) (L. Marshall)
Spr TAPS1210 S01 25008 MW 2:00-3:50(07) (L. Marshall)

TAPS 1230. Performance Theory: Ritual, Play and Drama in Context.
What is ritual? What is play? What is mimesis? What is an act? This course offers an introduction to basic texts in Performance Studies applied to the study of ancient and medieval theatre in global perspective. Students will learn fundamentals of performance theory while studying the histories of ancient Greek and Roman theatre, Medieval European ritual, Indian Sanskrit drama and theatrical form, Yoruban traditional performance, and modes of cross-cultural comparison. WRIT
Fall TAPS1230 S01 15468 TTh 10:30-11:50(09) (R. Schneider)

TAPS 1240. Performance Historiography and Theatre History.
This course will provide an introduction to performance history and historiography by concentrating on analysis of dramatic texts, theatrical events, festival performances and "performative" state and religious ceremonies from 1500-1850. We will explore incidents in Asia, the Americas and Europe as related to state consolidation, colonization, incipient nationalism(s), urbanization, cultural negotiation, and the representational practices the enacted. Enrollment limited to 35. WRIT
Spr TAPS1240 S01 25017 TTh 10:30-11:50(09) (P. Ybarra)

TAPS 1250. Twentieth-Century Western Theatre and Performance.
The study of key figures and movements in 20th-century Western theatre and performance, from approximately 1870 to 2000. We explore naturalism and alternative strategies to realism such as symbolism, futurism, surrealism and constructivism, along with myriad figures in the modern and postmodern "avant-garde." WRIT
Spr TAPS1250 S01 25016 TTh 1:00-2:20(10) (S. Golub)

TAPS 1280F. Introduction to Set Design.
A survey of the history and concepts of scenic design with emphasis on the art, artists and the social/political movements influencing the major period. Aims to give the designer a foundation in research approaches. Also to provide an examination of stylistic approaches and innovations in the context of the historical period. Enrollment limited to 20
Spr TAPS1280F S01 25464 M 1:00-4:50(06) (M. McGarty)

TAPS 1280Q. Hybrid Art (VISA 1800L).
Interested students must register for VISA 1800L S01 (CRN 15932)
This course presumes no prior knowledge of dance. Students with a scientific interest in human anatomy and movement are also encouraged to join.

**TAPS 1281R. mujeres ARRR! Feminist Playwrights in Spanish Theater.**

How have contemporary women playwrights contributed to socio-political movements in Spain? This seminar introduces students to some of the most celebrated (and often silenced) Spanish women dramatists of the 20th and 21st centuries. We will look at the historical, cultural and political context surrounding selected plays, to understand the dramaturgical, revolutionary and historical significance of each theater text. Identities, gender, sexuality, patriarchal values, feminist, political thought will be central to discussion. The class will be taught in English. The writings are in Spanish so the students should be bilingual or able to read in Spanish.

**Fall TAPS1281RS01 16579 Th 3:00-5:50(15)**

(A. Prieto Garcia)

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**TAPS 1280R. Puppet Theatre Workshop.**

This class is designed to provide students with an introduction to puppet theatre and performance. It is an interdisciplinary arts class that is open to any interested Brown student. Students with an interest and/or experience in Visual Art, Dance, Music, Acting, Writing, and Performance are strongly encouraged to apply. Enrolled students will be given a brief history of puppet theatre performance. In addition they will also design, construct, and perform with puppets. Guest Artists will share their various approaches to working in a wide range of puppet theatre styles including: shadow puppetry, Bunraku, and marionette. Enrollment limited to 18. S/NC

Fall TAPS1280RS01 15477 Th 2:00-5:50(11)

(K. Moore)

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**TAPS 1280S. Libretto Workshop for Musical Theatre.**

This class is not only for the aspiring librettist but for any student desiring insight into the craft of book writing for musical theater. The course will cover the basics of storytelling (plot, character development conflict, etc.) but specifically in terms of the musical. It will also detail the fundamentals of lyric writing, musical narrative and basic composition. We will examine three libretti (SWEENEY TODD: the classic horror, LITTLE SHOP OF HORRORS, the modern sci-fi and RENT, the contemporary adaptation). There will be lectures, group discussions, talks with guest professionals, and analysis of student assignments. Enrollment limited to 15 sophomores, juniors, and seniors.

2023 Spring TAPS1280S S01 25064 Th 9:00-12:20(08)

(M. Gardley)

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**TAPS 1281K. New Media Theory and Composition: Performing With Media.**

This studio course is for choreographers, directors, film-makers, performance artists, musicians, designers or anyone interested in the collision between New Media (primarily projection and sound environments) and performance of all kinds. Through the creation of new works we will explore practical issues, compositional strategies, and aesthetic aspects of hybrid performance. Beginning with a series of short studies, students will collaborate to create midterm pieces. Final projects may be collaborative or independent multimedia performance works. Though some instruction in media applications will be offered, this is primarily a class for students wishing to explore aesthetic and performative issues rather than in-depth study of specific technologies. Enrollment limited to 12.

Spring TAPS1281K S01 25766 WF 9:00-11:50(02)

To Be Arranged

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**TAPS 1281M. Introduction to Costume Construction.**

An introduction to the study and practice of costume construction skills. Topics include basic machine, hand sewing and patterning techniques.

Fall TAPS1281MS01 15475 W 3:00-7:50(14)

(R. Cesario)

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**TAPS 1281O. Acting Outside the Box: Race, Class, Gender and Sexuality in Performance.**

Examines the relationship between social and cultural identities and their representations in dramatic literature and performance. Students will be expected to read critical essays and plays, conduct research, and prepare to act in scenes that challenge the actor to confront the specifics of character and situation beyond the Eurocentric ideal. The goal is to strengthen the actor’s ability to construct truly meaningful characters by removing any reliance of “type” and/or immediate “identification” with the characters they will portray. Instructor permission required; interested students must come to the first class, fill out an application and participate in a sample class. Accepted students will be notified by the third class meeting. You must show up to every class meeting in order to keep your application active throughout the registration process. Enrollment limited to 18. DVPS

Spring TAPS1281OS01 24950 MW 3:00-5:50(13)

(K. Moore)

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**TAPS 1281Q. Introduction to Dance Studies: Sex, Death and Endurance.**

Dance Studies investigates multiple facets of dance, including choreography, performance, spectatorship, and theory. In this course we will engage with social dances (including hip-hop, tango, and Renaissance dance) and concert dance as we debate dance’s use and/or subversion of gender-specific and ethnic hierarchies. Emphasis will be given to choreographic portrayals of the human struggle with love, sickness, and death. We will also consider neuroscientific approaches to dance spectatorship, particularly as relates to empathizing with physical pain.

Fall TAPS1281QS01 16452 TTh 10:30-11:50(09)

(B. Shaw)

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**TAPS 1281S. The Precarious University (HMAN 1970E).**

Interested students must register for HMAN 1970E S01 (CRN 15740)

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**TAPS 1300. Advanced Set Design.**

The examination of the working relationship between designer and director. An emphasis on the design abilities needed to communicate varied visual approaches. Developing the creative, theatrical vocabulary needed to turn a director’s vision into a fully articulated set design. A substantial amount of plays will be read and researched. Drafting and model rendering techniques will be applied. Prerequisite: TAPS 1280F.

Instructor approval required prior to registration. Enrollment limited to 10.

Fall TAPS1300 S01 16147 W 2:00-5:50(07)

(M. McGary)

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**TAPS 1310. Advanced Modern Dance.**

Designed for dancers who have attained an advanced level in any dance technique. The purpose is to help such dancers come to understand both intellectually and kinesthetically the diversity of one of the few indigenous American art forms: modern dance. Enrollment limited to 40. S/NC

Fall TAPS1310 S01 15430 MW 3:00-4:20(13)

(J. Strandberg)

Fall TAPS1310 S01 15430 TTh 2:30-3:50(13)

(J. Strandberg)

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**TAPS 1320. Choreography.**

Designed for those who have had some experience in composition and would like to work, under supervision, on making dances. Emphasizes making full-length dances for small and large groups and demands a sophisticated use of space, dynamics, and music. Further emphasis on viewing and interpreting classic and contemporary works from a choreographic viewpoint. S/NC

Spring TAPS1320 S01 24840 MWF 10:00-12:00(03)

(J. Strandberg)

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**TAPS 1340. Dance Styles.**

This course focuses on the diverse styles, techniques and movement theories of Modern Dance. The students will practice the techniques and styles and will also study biographical material, view films, and attend live performances when possible. Enrollment limited to 40. S/NC

Spring TAPS1340 S01 24842 MW 3:00-4:30(13)

"To Be Arranged"

Spring TAPS1340 S01 24842 TTh 2:30-3:50(13)

"To Be Arranged"

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**TAPS 1350. Dance Performance and Repertory.**

Half course credit each semester. A study of dance repertory through commissioned new works, reconstruction, coaching, rehearsal, and performance. Guest artists and consultants from the American Dance Legacy Institute. Enrollment is by audition. Limited to skilled dancers. Instructor approval required. S/NC

Fall TAPS1350 S01 15450 Th 8:00PM-10:00PM(18)

(J. Strandberg)

Fall TAPS1350 S01 15450 MW 6:30-9:30PM(18)

(J. Strandberg)

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**TAPS 1360. Dance Performance and Repertory.**

A study of dance repertory offered through commissioned new works, reconstruction, coaching, rehearsal, and performance. The course will explore the phenomenology of dance, audience-performer connection, theatre production and dance criticism, among other topics. Enrollment is by audition. Limited to skilled dancers. S/NC

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TAPS 1360. Contemporary Mande Performance.
This course examines the influences of contemporary society upon traditional Mande Performance. Equal emphasis will be given to the theory and practice of embodied performance as it responds to selected music traditions, oral literatures, and aesthetic traditions. Films, readings, guest lectures and collaborative research projects will help to facilitate a deeper understanding of contemporary Mande society and its artistic production. Students MUST register for a conference and a lecture section. Enrollment limited to 150. Students must attend the first class meeting, as final enrollment is determined by application/tryout.

TAPS 1400. Advanced Performance.
An investigation into abstract and nonlinear modes of performance, working from fragmentary and recombined narrative, dramatic, and found sources. Seeks to evolve a conceptual approach to performance of the individual actor-director-writer through supervised and independent exercises and projects. Prerequisite: TAPS 0230. For juniors and especially seniors. Enrollment limited to 20.

TAPS 1430. Russian Theatre and Drama.
An overview of Russian theatre and drama from the 18th century to the late 20th century. Emphasis on plays as texts and historical documents, and on theatrical conditions, productions, and innovations. All readings are in English. Russian area studies concentrators are encouraged to enroll. Instructor permission required.

TAPS 1500H. Advanced Writing for Performance.
This course is an intense examination of the craft of writing scripts for the stage from germinal idea through production by analyzing students' work in workshops, reading scripts and attending local performances. Students will learn proper script format, story outline and structure, characterization, plot and the nuts and bolts of the script writing business. Moreover, they will write a full-length play or a series of one-acts. They also will be required to read and critique each other's work and bring a significant number of script copies to class for workshop. Prerequisite: TAPS 0100 and 0200. Enrollment limited to 17.

TAPS 1500L. Acting Together on the World Stage: Writing and Performance Studies.
From research to performance, develops new dance theater pieces that are rooted in Mande dance and American dance. Includes study with Mande, American, and European artists in building a body of repertory for the concert stage. May be repeated for credit. By audition. S/N Course.

TAPS 1500K. The Practical Dionysiac: Pseudo-Dionysius and Dion Boucicaut.
This is a playwriting course. Weekly in-session and take-home assignments lead to a final play as a culminating experience. We pace our writing and thinking with readings of the scripts of Boucicaut and the philosophy of Pseudo-Dionysius. Short weekly responses to assigned readings and each others work are posted to a shared website. Prerequisite: TAPS 0100 and 0200. Enrollment limited to 17.

TAPS 1500L. Acting Together on the World Stage: Writing and Political Performance.
Practical research in art for social change, with an emphasis on writing and composition, resulting in a series of solo and group devised performances (or well articulated proposals). Each week, in-session writing and devising exercises, coupled with a discussion of critical readings and case histories, build to projects that may be constructed solo or in small groups. We partner with students at Central Falls High School, who act as advisors and potential collaborators. Final projects may take the form of carefully constructed, achievable plans for long-range implementation (with momentum towards their actualization beyond the reach of the class). Students will be required to attend special workshops, field trips, and performances as scheduled through this semester; this schedule will be available at the first class meeting. Enrollment limited to 12. Spr. TAPS1500L S01 25568 W 2:30-5:50(07) (E. Ehn)

TAPS 1520. Seminar in Theatre Arts.
Seminar designed primarily for senior theatre arts concentrators, required during semester VII. Topics focus on career planning and theatre arts subjects not dealt with in other courses. Enrollment limited to 25 seniors. Fall TAPS1520 S01 15478 F 1:00-3:20(06) (C. Mok)

TAPS 1610. Political Theatre of the Americas.
This course explores political theatre and performance in Latin America, the US and Canada. The primary concern will be the use of performance in indigenous rights, queer rights, and gender equity campaigns as well as general critiques of socioeconomic inequity. The course examines the strategies used by actors in theatrical performances, performance art, and political protests that use the tools of performance. Exploration of the rich relationship between politics and performance. There are no prerequisites, but one course in either Latin American Studies or Theatre and Performance Studies is recommended.

TAPS 1710A. Open Source Culture (MCM 1700N).
Interested students must register for MCM 1700N S01 (CRN 14316).

TAPS 1710B. Radical Media (MCM 1700P).
Interested students must register for MCM 1700P S01 (CRN 14461).

TAPS 1720. Queer Relations: Aesthetics and Sexuality (ENGL 1900R).
Interested students must register for ENGL 1900R S01 (CRN 14572).

TAPS 1730. Stage from Page: Ancient Greek Drama in Performance (CLAS 1750M).
Interested students must register for CLAS 1750M S01 (CRN 25339).

To be taken by all students accepted into the theatre arts honors program. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

To be taken by all students accepted into the theatre arts honors program. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

TAPS 2200B. Neoliberalism and Performance.
This course will explore the relationship between performance (dance, theatre, performance art, public art) and Neoliberal economic and governmental policies and practices. We will place special emphasis on how the arts participate in modes of labor flexibility, globalization, entrepreneurship and American dance and myriad of social and political implications. Critical readings will include political theory, play and performance texts and videos and economic theory.
Fall TAPS2200B S01 15452 M 12:20-2:40(12) (P. Ybarra)

TAPS 2200K. Digital Performance (MUSC 2210).
Interested students must register for MUSC 2210 S01 (CRN 14358)

TAPS 2310. Graduate Playwriting.
With Word as the bodying forth into social reality of original experience, the structures, purposes and ethical risks of writing for performance are examined; experienced through the reading of each other’s works-in-progress, through the reading of essays and in session exercises. Must be taken by playwriting grad students every semester in residence. May be taken multiple times for credit. Undergraduates will be admitted with permission of the instructor. Contact Erik_Ehn@Brown.edu using “Grad PW” in the subject line. Permission will be given once manuscripts have been reviewed. SINC

Fall TAPS2310 S01 15476 Th 11:00-5:50(09) (E. Ehn)
Spr TAPS2310 S01 25022 Th 1:00-5:50(15) (E. Ehn)

TAPS 2420. Habits of Living: Affect and New Media (HMAN 2970I).
Interested students must register for HMAN 2970I S01 (CRN 25903)

This course is open only to students of the Consortium. It will include fundamental exercises, textual analysis, rehearsal techniques, character and scene work designed to provide the student actor with a working method based upon the general principles of the Stanislavsky system. A major part of this course will include rehearsal and performance responsibilities.

Fall TAPS2500 S01 10649 Arranged (S. Berenson)
Spr TAPS2500 S01 20163 Arranged (S. Berenson)

This course is open only to students of the Consortium. It will provide a progression of exercises to free, develop and strengthen the voice as the actor’s instrument. The classes focus on relaxation, physical awareness, breath, freeing the channel for sound developing the resonators, releasing the voice from the body, articulation, self-expression, and the link to text and acting.

Fall TAPS2510 S01 10650 Arranged (S. Berenson)

TAPS 2520. Movement: Form, Center and Balance.
This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. It will develop a physical vocabulary through floor work, choreographed combinations and movement improvisation, helping the actor develop an understanding of space, strength of movement, and physical life onstage.

Fall TAPS2520 S01 10651 Arranged (S. Berenson)

TAPS 2530. Directing: Composition and Staging.
This course is open only to the MFA Consortium program. It will include information and exercises addressing how to stage a play, balance the space, and transition from scene to scene. It will also focus on the director’s responsibility to the actors, and ways in which to help them create their roles.

Fall TAPS2530 S01 10652 Arranged (S. Berenson)

TAPS 2550. Acting: Realism and Modernism.
This is a two-credit course and is open only to students of the MFA Consortium program. This is a scene study class with an emphasis on the structures, purposes and ethical risks of writing for performance are examined; experienced through the reading of each other’s works-in-progress, through the reading of essays and in session exercises. Must be taken by playwriting grad students every semester in residence. May be taken multiple times for credit. Undergraduates will be admitted with permission of the instructor. Contact Erik_Ehn@Brown.edu using “Grad PW” in the subject line. Permission will be given once manuscripts have been reviewed. SINC

Spr TAPS2550 S01 20164 Arranged (S. Berenson)

TAPS 2560. Voice: Phonetics.
This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. The course will teach articulation, self-expression, and link to text and acting. Additional work is devoted to speech and diction, with an introduction to the International Phonetic Alphabet (IPA) and a progressive through Standard American Speech to rudimentary dialect work.

Spr TAPS2560 S01 20165 Arranged (S. Berenson)

TAPS 2570. Movement: Physical Life and Language.
This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. It will help the student incorporate text and physicality in order to create the inner and outer life of a character. Special attention will be given to the student’s repetitive physical patterns, and new ways will be explored in examining the internal and external life of a character.

Spr TAPS2570 S01 20166 Arranged (S. Berenson)

TAPS 2580. Directing: Collaboration with the Playwright.
This course is open only to students of the MFA Consortium program. It will focus on issues of collaboration between the playwright and the director. Each director will be assigned to work on a new script in cooperation with a playwright. A workshop production will be staged and open to the public.

Spr TAPS2580 S01 20167 Arranged (S. Berenson)

TAPS 2600. Acting: Shakespeare and Moliere.
This is a two-credit course and is open only to students of the MFA Consortium program. This is a scene study class with an emphasis on the problems of style and language in the plays of Moliere and Shakespeare.

Fall TAPS2600 S01 10653 Arranged (S. Berenson)

TAPS 2610. Voice: Verse Text.
This course is open only to students of the MFA Consortium program. It will include advanced vocal work and an introduction to singing in performance. Rhythm and rhyme will be explored in relation to lyrics and verse.

Fall TAPS2610 S01 10654 Arranged (S. Berenson)

This course is open only to students of the MFA Consortium program. This class will provide a step-by-step understanding and application of The Alexander Technique, which helps to develop body alignment, range of motion, and inner stillness.

Fall TAPS2620 S01 10655 Arranged (S. Berenson)

TAPS 2630. Directing: The Director’s Vision.
This course is open only to students of the MFA Consortium program. Under close supervision, students will direct projects at the Consortium. Each student will be responsible for the creation of either a new or an established script. Students will meet regularly with the faculty to discuss process and progress.

Fall TAPS2630 S01 10656 Arranged (S. Berenson)

TAPS 2650. Acting: Problems of Style.
This is a two-credit course and is open only to students of the MFA Consortium program. This is a scene study class with an emphasis on the problems of style and language in non-realistic plays. In addition to advanced work on Shakespeare’s texts, the course will explore other playwrights, possibly including Ibsen, Strindberg, Shaw and Beckett.

Spr TAPS2650 S01 20168 Arranged (S. Berenson)

This course is open only to students of the MFA Consortium program. Students will work on music, both as soloists and in small groups. The course will address issues of sight reading, breath support, phrasing, and how to stage a song for performance.

Spr TAPS2660 S01 20169 Arranged (S. Berenson)

TAPS 2670. Movement: Stage Combat, Clowning, and Other Physical Form.
This course is open only to students of the MFA Consortium program. It will offer basic instruction in many physical areas including, but not limited to stage combat, juggling, mime, tumbling and clowning.

Spr TAPS2670 S01 20170 Arranged (S. Berenson)

This course is open only to students of the MFA Consortium program. It will include issues of directing, as well as the concerns of an Artistic Director and Associate Artistic Director. Each student will be expected to assistant direct a professional production at Trinity Rep Company.

Spr TAPS2680 S01 20171 Arranged (S. Berenson)

TAPS 2700. Acting: Monologue Performance.
This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. Acting assignments will include solo work presented in a variety of ways. These might include a selection of monologues and songs presented by the students to show the
full range of his or her abilities. A performance might also include a solo piece written by the student and presented as a single-actor production

Fall TAPS2700 S01 10657 Arranged (S. Berenson)
Spr TAPS2700 S01 20172 Arranged (S. Berenson)

This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. This course will teach actors various American regional dialects and international accents including British, Irish, Italian and Russian. Students will examine the language with the use of the International Phonetic Alphabet, and will be expected to perform using the regionalisms and dialect and then teach it to the rest of the class
Fall TAPS2710 S01 10658 Arranged (S. Berenson)

TAPS 2720. Physical Theatre.
This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. This course will explore various kinds of physical theatre, and ways in which the actor can be free, spontaneous and open in rehearsal and performance. Areas of exploration will include Commedia, mask and yoga
Fall TAPS2720 S01 10659 Arranged (S. Berenson)

This is a two-credit course and is open only to students of the Brown/Trinity Rep MFA Consortium program. Directing students will study theatrical design including stage settings, costumes, lights and sound. Particular focus will be given to ways in which a director works with a designer to establish his or her vision of the play. Areas of study will include blueprints, floor plans, renderings and focus
Fall TAPS2730 S01 10660 Arranged (S. Berenson)

TAPS 2750. Acting and Directing: Practical Application.
This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. The course will prepare acting students for a graduate showcase which will be performed in New York City and Los Angeles for agents, casting directors, and other professionals in the industry. Directing students will stage a New York showcase of their work for agents, artistic directors, and other theatre professionals. The course will also cover audition and interview techniques. Video work will be explored in detail, examining the difference between stage and on-camera direction and performance
Spr TAPS2750 S01 20173 Arranged (S. Berenson)

TAPS 2760. Professional Performance.
This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. It will include performance work in a variety of venues including, but not limited to, Trinity Rep’s mainstage. Work might include major and/or minor roles at Trinity, as well as understudy responsibilities for the professional company. Based on their participation in this course, students will be awarded their union cards so that they are able to enter the professional area upon graduating
Spr TAPS2760 S01 20174 Arranged (S. Berenson)

This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. Each student will direct a professional full-scale production in one of Trinity Rep’s theatres. In addition to directorial duties, students will assist in casting and designing the play, and will be fully involved in areas of budget, publicity, press relations, marketing and development
Spr TAPS2770 S01 20175 Arranged (S. Berenson)

TAPS 2870. Comprehensive Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination

For graduate playwrights, in their second and third years, rehearsing and revising their thesis projects. May be taken multiple times for credit. Must be taken both semesters in the second and third year

TAPS 2980. Graduate Level Independent Reading and Research.
A program of intensive reading and research on selected topics arranged in terms of special needs and interests of the student. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

TAPS 2981. Master’s Thesis Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

TAPS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis

University Courses

UNIV 0400. Beyond Narnia: The Literature of C.S. Lewis.
C.S. Lewis was one of the most widely read authors of the 20th Century, yet much of his philosophical, theological and political theories are unfamiliar. His fiction and philosophical writings will be explored to better understand his perspective on modern humanity, the relationship of man to family, the community and the state. C.S. Lewis had a very clear philosophy on the importance of the individual and how he relates to the larger social structures. Morality and the role of individuals as they interface with others around them and their responsibility for working with society both at community level and at the macro-state level will be explored
Fall UNIV0400 S01 16219 T 3:00-5:20(15) (T. Flanigan)
Fall UNIV0400 S02 16354 F 3:00-5:20(15) (T. Flanigan)

UNIV 0540. Introduction to Contemplative Studies.
Introduction to the new field of Contemplative Studies focusing on identifying methods human beings have found, across cultures and across time, to concentrate, broaden and deepen conscious awareness. We will study what these methods and experiences entail, how to critically appraise them, how to experience them ourselves, and how they influence the development of empathy, health, and well-being. Preference will be given to students who have taken RELS 0040, "Great Contemplative Traditions of Asia"
Spr UNIV0540 S01 23955 W 3:00-5:20(14) (H. Roth)

UNIV 1000. Cognitive Neuroscience of Meditation.
The course will focus on the history of neuroscientific studies of meditation. We will examine the various technological innovations that drove this research, EEG, PET/MRI, and MEG and the central scientific and philosophical challenges presented by it, including: the epistemological status of correlating subjective measures with brain function; the challenges of carrying out and analyzing data from a longitudinal meditation training study; the nature of neuroplasticity; how the brain’s default network is affected by meditation; the neural oscillatory correlates of attentional processes in meditation; how the James-Lang hypothesis is affected by these cognitive neuroscientific studies. Instructor permission required
Fall UNIV1000 S01 16207 M 3:00-5:20(13) (C. Kerr)

UNIV 1520. The Shaping of World Views.
To many students, an exclusive emphasis on specialized studies fragments the "world" in which they live. A widespread feeling of loss pervades the minds of students who often come to universities to learn right from wrong, to distinguish what is true from what is false, but who realize at the end of four years that they have deconstructed their freshman beliefs, values, and ideologies, but have created nothing to replace them. This course examines the diversity of worldviews both synchronically and diachronically and surveys various explanations for such diversity. Enrollment limited to 30. Conducted in English
Spr UNIV1520 S01 24378 MWF 2:00-2:50(07) (O. Ameida)

Urban Studies

URBN 0210. The City: An Introduction to Urban Studies.
What is special about urban life? How and why do cities differ? How has the way we think about the city changed over time? Can we solve urban problems? This course offers an interdisciplinary approach to the history, physical design, spatial form, economy, government, cultures, and social life of cities in the U.S. and beyond

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
URBN 1000. Fieldwork in the Urban Community. A fieldwork course with limited enrollment. Each student undertakes a fieldwork project in close collaboration with a government agency, a nonprofit association, or a planning firm. In weekly seminar meetings, the class examines a series of urban issues and discusses fieldwork methodology. Students also schedule regular appointments with the instructor. Restricted to Urban Studies concentrators. Enrollment limited to 8 during registration. Instructor will select additional 2 students after first day of class. Instructor permission required. WRIT Fall URBN1000 S01 16251 TTh 2:30-3:50(11) (J. Pacewicz)

URBN 1210. Regional Planning. Urban sprawl, uncoordinated land use policy, environmental decline, shrinking cities, regional inequities in housing, education, and tax capacity are all challenges that transcend city boundaries. Does it take regional planning to address these challenges? What can regional planning provide that urban planning cannot? In this course, students will develop a critical understanding of regional planning approaches to economic, social, environmental, and land use issues in the United States and abroad. Students will learn urban and regional planning methods which will be integrated throughout the course. A weekly studio and practical group projects are planned Fall URBN1210 S01 16432 MWF 9:00-9:50(02) (Y. Sungu-Eryilmaz)

URBN 1220. Sustainable Urbanism. Various notions of sustainability are used to explain degraded urban conditions and to guide development in urban areas. What, in fact, does sustainability mean in the context of urban areas? Can sustainability be achieved in cities? This course offers a comprehensive, yet critical understanding of the competing theories and practices of sustainable development as applied in cities. Topics include sprawl, energy-efficient transportation, brownfields, community land trusts, green architecture, renewable energy, air and water pollution, and waste recycling. A weekly studio and practical group projects are planned Fall URBN1220 S01 16433 W 11:00-11:50(04) (Y. Sungu-Eryilmaz) Fall URBN1220 S01 16433 MWF 11:00-11:50(04) (Y. Sungu-Eryilmaz)

URBN 1570. Outs of the City: Interdisciplinary Perspectives on Urban Infrastructure and Environmental Planning. This course confronts the complex challenges of reconciling multiple uses of contemporary urban environments in the 21st century globalization city. It investigates current environmental impacts and risks related to urban infrastructure systems and analyzes current efforts to minimize negative impacts through best management practices. It addresses urban initiatives to increase sustainability and resiliency of infrastructure systems in anticipation of increased risks related to climate change. Students will learn the key problems and solutions related to urban infrastructure and develop competence in technical analysis, policy analysis, and program implementation. Enrollment limited to 40 Spr URBN1570 S01 25987 T 4:00-6:20(15) (K. Teichert)

URBN 1870A. American Culture and the City. This course explores American culture and the way it shapes our cities. Topics include the American dream, race, immigration, urban dilemmas and the seduction of suburbia. We read a book (readings include Alexis de Tocqueville, Richard Wright, Tom Wolfe, and Margaret Atwood); and screen a film (movies include Wall Street, Traffic, Crash, Malcolm X) each week. Prerequisite: POLS 0220. Priority given to Urban Studies concentrators Fall URBN1870AS02 14318 T 12:00-2:20(10) (J. Morone)

URBN 1870D. Downtown Development. Study of the revitalization of central business districts (CBDs) in large United States cities. Topics include the CBD as a land use system, retail change, the rise of white-collar offices, gentrification near the CBD, and the political economy of CBD redevelopment. Providence’s CBD used as a case example; guest speakers discuss its change; field trips are taken. Enrollment limited to 15 during registration. Instructor will select additional 5 students after first day of class. Instructor permission required Spr URBN1870DS01 25437 Th 4:00-6:20(15) (To Be Arranged)

URBN 1870J. The Politics of Community Organizing. Introduces key issues concerning community organizing. Focuses on the life, skills, and tactics of Saul Alinsky and the national organization he founded, the Industrial Areas Foundation (IAF). Analyzes the work of the IAF in a number of urban settings. Seeks to develop theories and models for studying community mobilization in urban America. Priority given to Political Science and Urban Studies concentrators Fall URBN1870J S01 14338 M 3:00-5:20(15) (M. Orn)

URBN 1900. Land Use Planning: The Future of the I-195 Parcels. This studio examines how one represents, analyzes, constructs and projects the future design of an urban site. One approach examines the city as a series of distinct physical spaces and operates by establishing typological standards and constructs significant and iconic public spaces. The second approach is concerned with the city as a technical object that organizes time – the operational aspects of the city - as well as space. In this studio, we ask you to consider how intervening in a specific location in downtown Providence can initiate a larger plan and longer-term vision through urban and an architectural scale propositions. Enrollment limited to 10 seniors concentrating in Urban Studies and History of Art and Architecture Fall URBN1900 S01 16434 Arranged (D. Neumann)

URBN 1970. Independent Reading and Research. A specific program of intensive reading and research arranged in terms of the special needs and interests of the student. Open primarily to concentrators, but others may be admitted by written permission. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course

URBN 1981. Honors Thesis Workshop. This seminar introduces students to independent research and writing skills necessary for successful and timely completion of the honors thesis. Course work includes presentation of one’s own thesis drafts and peer review of classmates’ work. All students who submit an approved honors thesis proposal shall enroll in URBN 1981 for the spring semester of their thesis research and writing. Concentrators may also enroll in the course during semesters 6 or 7 in preparation for the honors thesis, but must present a written proposal in place of chapters. Enrollment limited to 20 juniors and seniors in Urban Studies. S/NC Spr URBN1981 S01 25790 Arranged (H. Silver)

URBN XLIST. Courses of interest to Concentrators in Urban Studies. Fall 2012 The following courses offered by other departments will fulfill specific requirements of the Urban Studies concentration. (Please refer to the Urban Studies website to determine which requirements are fulfilled by these courses.) Please check with the sponsoring department for times and locations.

American Studies
AMST 1611A Making America: Twentieth Century US Immigrant / Ethnic Literature
AMST 1612D Cities of Sound: Place and History in American Pop Music

Anthropology
ANTH 1236 Urban Life: Anthropology in and of the City
Archaeology and the Ancient World
ARCH 1900 The Archaeology of College Hill

Economics
ECON 1620 Introduction to Econometrics

Education
EDUC 1110 Introductory Statistics for Education Research and Policy Analysis

Environmental Studies
ENV2 1400 Sustainable Design in the Built Environment

Geography
GEOL 1320 Introduction to Geographic Information Systems for Environmental Applications

History
HIST 1820 American Urban History to 1870

Public Policy and American Institutions
PPAI 1700R Urban Revitalization: Lessons from the Providence Plan

Sociology
SOC 0130 Democracy, Inequality, and Public Policy
SOC 1100 Introductory Statistics for Social Research
SOC 1270 Race, Class, and Ethnicity in the Modern World
SOC 1540 Human Needs and Social Services
SOC 1871F Introduction to GIS: A Social Science Perspective

Spring 2013
The following courses offered by other departments will fulfill specific requirements of the Urban Studies concentration. (Please refer to the Urban Studies website to determine which requirements are fulfilled by these courses.) Please check with the sponsoring department for times and locations.

**American Studies**
- AMST 1903G Oral History and Community Memory
- AMST 1904M Charles Chapin and the Urban Public Health Movement

**Economics**
- ECON 1410 Urban Economics
- ECON 1590 China Since 1949
- ECON 1620 Introduction to Econometrics

**English**
- ENGL 0800A City Novels

**Environmental Studies**
- ENVS 1410 Environmental Law and Policy
- ENVS 1920 Analysis and Resolution of Environmental Problems / Case Studies

**History of Art and Architecture**
- HIAA 0560 The Visual Culture of Early Modern Rome

**Political Science**
- POLS 0220 City Politics
- POLS 1600 Political Research Methods
- POLS 1760 The Obama Infrastructure Policy

**Public Policy and American Institutions**
- PPAI 1200 Policy Analysis
- PPAI 1700J GIS and Public Policy

**Sociology**
- SOC 1100 Introductory Statistics for Social Research
- SOC 1330 Remaking the City

### Visual Art

**VISA 0100. Studio Foundation.**
An introduction to basic visual art concepts, exploring a range of materials with emphasis on experimentation and analysis of visual relationships. Drawing is a vital part of this course. Admittance to this course will be determined by an online lottery, which can be accessed through the VISA 0100 Lottery link in the Student menu in Banner Web. VISA 0100 or 0110 is a prerequisite to any advanced studio course work at Brown or the Rhode Island School of Design. Under certain circumstances a student may petition for a waiver of this requirement upon submission of a portfolio.

#### Fall 2011
- VISAO100 S01 15741 MW 1:00-2:50(17) (J. Ehrenberg)
- VISAO100 S03 15744 MW 6:00-7:50(17) (D. Hoffman)
- VISAO100 S04 15745 MW 10:00-11:50(17) (K. Spencer)
- VISAO100 S05 15746 TTh 1:00-2:50(17) (J. Edwards)
- VISAO100 S06 15747 TTh 4:00-5:50(17) (J. Edwards)
- VISAO100 S07 15748 TTh 10:00-11:50(17) (L. Bostrom)
- VISAO100 S08 15749 MW 4:00-5:50(17) (K. Spencer)
- VISAO100 S09 15750 TTh 6:00-7:50(17) (M. Trelles)
- VISAO100 S10 23848 MW 10:00-11:50(16) (K. Spencer)
- VISAO100 S11 23850 MW 1:00-2:50(16) (J. Ehrenberg)
- VISAO100 S12 23851 TTh 1:00-2:50(16) (J. Edwards)
- VISAO100 S13 23852 TTh 4:00-5:50(16) (J. Edwards)
- VISAO100 S14 23853 MW 4:00-5:50(16) (K. Spencer)
- VISAO100 S15 23855 TTh 10:00-11:50(16) (S. Quamina)
- VISAO100 S16 25308 MW 10:00-11:50(16) (P. Myoda)
- VISAO100 S17 25538 MW 4:00-5:50(16) (K. Spencer)

**VISA 0110. Advanced Studio Foundation.**
Some students arrive at Brown with a greater understanding of visual art principles than most, yet need an introduction to other aspects before taking more advanced courses. Figure drawing is practiced throughout the semester, utilizing a variety of media. Weekly outside assignments explore diverse themes and become the subject of comprehensive class discussions. Serves as a prerequisite to upper-level courses, as does VISA0100.

Admittance to this course will be determined by a portfolio review. Students must submit their portfolio, one week prior to the start of classes, to the Visual Art department office in List, room 222. digital images submitted on a CD are preferred. Students will be notified of acceptance into the class by the end of the first week of classes.

#### Fall 2011
- VISAO110 S01 15760 MW 10:00-11:50(03) (P. Myoda)

**VISA 0120. Foundation Media: Sound and Image.**
This foundation studio course focuses on the production and theory of screen-based digital media art and introduces the computer as a medium and a tool for art. The principles and techniques web design, and sound and image production are addressed in readings, screenings, and a number of specific projects. During pre-registration, the course is open to Visual Arts concentrators; all others may enroll with instructor permission. After pre-registration ends, registration for all students is by instructor permission only. Enrollment limited to 12.

### Fall 2011
- VISAO120 S01 15761 MW 4:00-5:50(13) (J. Ehrenberg)
- VISAO120 S02 25105 TTh 10:00-11:50(02) (E. Osborn)
- VISAO120 S02 25106 MW 4:00-5:50(13) (J. Ehrenberg)

**VISA 1110. Drawing I.**
Drawing from nature, still life, the model, and the imagination in a variety of media. A continuing series of outside assignments emphasized. Visits to galleries, museums and pertinent exhibitions may be undertaken. The portfolio of the individual student will be the basis of evaluation. Great emphasis is placed on classroom participation. Pre-requisite: VISA 0100 or 0110.

This course restricted to 20 students. 18 seats will be available before pre-registration. Students who are not admitted during pre-registration should attend the first meeting.

#### Fall 2011
- VISAI110 S02 15759 TTh 1:00-4:50(10) (L. Bostrom)

**VISA 1120. Drawing II.**
Drawing from the imagination, the model, and landscapes in a variety of media. Great emphasis is placed on creative work and on classroom participation. Pre-requisite: VISA 0100 or 0110. This course restricted to 20 students. 18 seats will be available before preregistration. This class will satisfy VA concentration requirement for drawing. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.

#### Fall 2011
- VISAI120 S01 15763 MW 1:00-4:50(06) (D. Hoffman)
- VISAI120 S01 25108 MW 1:00-4:50(06) (D. Hoffman)

**VISA 1210J. Making Monotypes: Ideas Through Printed Variation.**
The aim of the course is to understand the variability, sequencing potential and the inherent luminosity of the monotype medium and to use these attributes to discover and advance one's own visual ideas. Monotype refers to the making of a single unique print through press and non-press means. Several rapid projects with themes will precede a longer series culminating in a final epic portfolio of independent content. Individual, peer, and small and large group critiques will occur weekly for feedback. Readings and visits to the Bell Gallery and the RISD Museum of Art collections will give both a historical context and a singular appreciation to the studio.

#### Fall 2011
- VISAI210J S01 15832 TTh 9:00-11:50(08) (L. Tarentino)

**VISA 1210K. Pixel/Paint/Print.**
This studio art course investigates possibilities for using the computer along with traditional painting and printmaking processes to produce image-based intermedial work. Students will explore how computers and computer networks have changed the creation, content, form, distribution, and exhibition of artwork through a series of assignments and readings, discussions, and slide lectures, and how computers and digital media can intersect with a traditional studio practice. Students will produce a portfolio of mixed-media work. Photoshop, Illustrator, the internet, and digital printers, along with traditional painting, drawing, and printing mediums will be used as tools for art-making. Prerequisite: VISA 0100. Enrollment limited to 12. Instructor permission required.

#### Spring 2012
- VISAI210K S01 25109 MW 9:00-11:50(02) (L. Tarentino)

**VISA 1240. Art of the Book.**
Will examine the book, structurally and conceptually, as traditional craft, and artist's medium. Students will learn the materials, tools and techniques of bookbinding, as they explore the expressive possibilities of the book form. Topics and projects will include non-adhesive bookbinding, hardcover cloth and leather bound books, clamshell boxes, book repair and papermaking. Studio work will be augmented with field trips, artist visits and guided explorations of the special collections at the John Hay Library. While students may take VISA 1240 only, they may not enroll in 1250 without 1240 as a prerequisite. Pre-requisite: VISA 0100 or 0110. This course restricted to 15 VISA Concentrators, and others by permission.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
VISA 1250. Art of the Book.
Will examine the artist’s book from the printer/publisher perspective. Students will learn the basics of book design, traditional typography and the letterpress printing, as they consider the book and its related printed matter in the service of content. The course will be run as a fine press publishing house in which students will produce individual and group projects, including bookplates, broadsides, and books. Studio work will be augmented with field trips, artist visits, and guided exploration of the special collections at the John Hay Library. Prerequisite: VISA 0100 or 0110, and VISA 1240. This course restricted to 15 students. 5 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.

Fall VISA1240 S01 15765 MW 1:00-4:50(06) (A. Heaton)

VISA 1310. Painting I.
Designed to accommodate a variety of interests and aptitudes. Provides basic instruction in media and painting procedure, but emphasizes the development of the image as a visual statement. Covers the building of stretchers, basic color principles, and painting media and procedures. Slides and related books and articles are discussed. Individual criticism is given; participation in regularly scheduled group discussions is required. Pre-requisite: VISA 0100 or 0110. This course restricted to 18 VISA Concentrators, and others by permission of the instructor. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first class.

VISA 1320. Painting II.
The advanced class covers information beyond the introductory level. Individual criticism is emphasized. Students are required to complete all structured assignments and to participate in regularly scheduled discussions. Prerequisite: VISA 0110, and VISA 1310. This course will be restricted to 18 VISA Concentrators and others by permission of the instructor. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register are advised to attend the first meeting of the class.

Fall VISA1310 S01 15766 TTh 1:00-3:50(10) (L. Tarentino)
Spr VISA1320 S01 25107 MW 1:00-3:50(10) (L. Tarentino)

VISA 1410. Sculpture: Material Investigations
This studio course addresses basic sculptural methods, i.e., additive and subtractive modeling, casting, and assemblage, and common sculptural materials, i.e., wood, metal, plaster, and found objects. Demonstrations and workshops on a number of sculptural tools and materials form the foundation for this studio. Students develop sculptural solutions to a given set of problems. Contemporary issues raised in critiques and readings. Extensive outside work is expected. Students are invited to take this course more than once, as the problems can be customized for those with more experience. Pre-requisite: VISA 0100 or 0110 or VISA 0130. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting of the class.

Fall VISA1410 S01 15768 MW 1:00-4:50(06) (P. Myoda)

VISA 1420. Sculpture: Conceptual Propositions
This studio course explores a number of contemporary sculptural theories and practices. Students develop sculptural solutions to a given set of problems, using materials and methods of their choosing. Contemporary issues raised in critiques and readings. Completion of VISA 1410 or comparable experience in some type of three-dimensional practice is suggested, but not required. Demonstrations and workshops on a number of sculptural tools and materials will be given as needed. Students are invited to take this course more than once, as the problems can be customized for those with more experience. Extensive outside work expected. Prerequisite: VISA 0100 or VISA 0110 or VISA 0130. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting of the class.

Spr VISA1420 S01 25117 MW 1:00-4:50(06) (P. Myoda)

VISA 1510. Photography I.
Introductory course in black and white photography, emphasizing core photographic concepts, possibilities, history, genres, technical information, and techniques. A variety of lens-less and lens based exercises will be introduced blurring the boundaries between the “traditional” sense of photography (as means of mechanical reproduction) and other studio based media such as drawing or painting. Large and medium format cameras will be introduced, but students should have their own 35 mm film camera. Pre-requisite: VISA 0100 or 0110. This course restricted to 15 VISA Concentrators, and others by permission of the instructor. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.

Fall VISA1510 S01 15769 MW 1:00-3:50(06) (T. Ganz)
Spr VISA1510 S01 25442 MW 1:00-3:50(06) (T. Ganz)

Will explore digital image processing in color and B&W. Using digital cameras, computer editing software, digital printing, as well as critical analysis of computer digitized images will be covered. The execution of visual problems and in-class presentations as well as theoretical readings allow students to examine the content and function of digital imaging technology and production in modern photography. A digital SLR type camera is required. Prerequisite: VISA 0100, VISA 0110, or VISA 0120. Prerequisite: VISA 0100, VISA 0110, or VISA 0120. This course restricted to 15 VISA Concentrators, and others by permission of the instructor. 10 seats will be available during pre-registration.

Students who are not admitted during pre-registration should attend the first meeting. May be repeated once for credit.

Fall VISA1520 S01 15771 MW 9:00-11:50(08) (T. Ganz)
Spr VISA1520 S01 25112 MW 9:00-11:50(02) (T. Ganz)

VISA 1800C. Honors Seminar.
Required for students who have been accepted as candidates for honors. The seminar meets weekly to discuss readings and for group critiques. Includes group trips to New York and Boston, to visit galleries, museums, and artists’ studios. Instructor permission required. WRIT

Fall VISA1800C S01 15772 TTh 9:00-11:50(08) (E. Osborn)

VISA 1800J. Exploration in Video Art.
This studio course provides an overview of contemporary video art and video installation practices, facilitates the development of video work in expanded space, and encourages a critical approach to interactive moving image practice. Students will develop a set of video installation pieces by working individually and in groups. The pieces will be developed for particular spaces and situations beyond the standard single-screen video format. Students will learn basic video production and post-production skills using Final Cut Pro, DVD Studio Pro, Jitter, and other tools as needed. The production work will be complimented by technical lectures and demos, readings and discussions, short assignments, and screenings. Prerequisite: VISA 0120. Instructor permission required. Enrollment limited to 20.

Fall VISA1800J S01 15939 TTh 1:00-3:50(10) (E. Osborn)

VISA 1800L. Hybrid Art: Performance, Object, and Everyday Life.
How do performance, object, and everyday life overlap and mutually define each other? We will design and build situations/objects asking questions about the relational aspects of our practices. What is the significance of “endurance” or “duration” in relationship to artwork in various media? How does art impact the social spaces (public and private) that we inhabit or that define us. These are only some of the questions that will provoke object-based and time-based experiments in hybrid art across the semester. Enrollment limited to 14. Instructor permission required.

Fall VISA1800L S01 15932 MW 1:00-4:50(06) (R. Fishman)

Unlike other creative professionals, visual artists don’t have agents or managers—you have to do it all yourself. This class will cover business basics including tracking inventory and preparing invoices; taking legal
precautions like registering a copyright and drafting consignment forms; using promotional tools; and making career decisions such as choosing the right venue to show your work. Grants, residencies, do-it-yourself strategies and relationships with galleries and nonprofit institutions will be discussed in depth. Discussion and assignments will emphasize community and the practical, hands-on skills necessary to thrive as a visual artist. Prerequisite: VISA 0100 or 0110, in addition to two semesters of VISA studio courses. Enrollment limited to 20 juniors and seniors in Visual Art. WRIT

VISA 1800P. Communicating Science through Visual Media.
Taught by RISD and Brown Professors w/the Science Ctr and the Creative Mind Initiative, this courses explores the pedagogy of using visual media to convey scientific concepts. The goal is to assess the quality of existing material and design new material that fills an educational need and makes science engaging and accessible. It is comprised of lectures, labs, screenings, discussions, critiques and guest speakers. Student teams collaborate on a series of short exercises leading to the creation of final videos/animations that explain scientific concepts. Projects will be evaluated on accuracy, clarity of explanation, educational value, engagement w/the viewer and creativity. Enrollment limited to 12

Fall VISA1800P S01 16650 W 1:00-5:50(06) (R. Fishman)

This course will explore the digital and design connections across the disciplines of fine arts, sciences and liberal arts. Students will create work that is based on their individual skills and interests. Assignments will be in art, design and color using basic inexpensive materials to establish students’ ability to negotiate formal critical language regarding art and design. A combination of viewing still images, film and analysis of conceptual art forms and engaging in a continuing critical dialogue w/the instructor, peers and visiting artists/lecturers. Some field trips. Enrollment limited to 12

Fall VISA1800U S01 16542 Th 1:00-6:00(10) (M. Milloff)

Work on an approved project leading to the presentation of a portfolio, under supervision of an individual member of the staff. Project proposals must be filed with the department no later than the first week of the semester. Section numbers vary by instructor

Section numbers vary by instructor

VISA 2450. Exchange Scholar Program.

VISA XLIST. Courses of Interest to Visual Arts Concentrators.
Africana Studies

The concentration in Africana Studies critically examines the artistic, historical, literary, and theoretical expressions of the peoples and cultures of Africa and the African Diaspora. Central to the work of students and faculty in the concentration is the close collaboration of artists, scholars, and writers in examining relationships between academic and artistic knowledge about the world and human experience. Concentrators work closely with faculty members in developing new knowledge about the world and human existence through the critical and comprehensive study of the peoples and cultures of Africa and the African Diaspora. Concentrators are encouraged to study abroad in Africa, the Caribbean, and/or Latin America and to acquire language competency in a language other than English spoken in Africa and the diaspora.

In order to develop requisite competency, Africana Studies concentrators must complete eight (8) semester-long courses offered by or cross-listed with the Department. Concentrators may also petition the Department to accept other appropriate courses.

Of these courses, the following two Africana Studies courses are required:

- AFRI 0090 An Introduction to Africana Studies (Fall ONLY)
- AFRI 1360 Africana Studies: Knowledge, Texts and Methodology—Senior Capstone Seminar (Spring ONLY)

The Department strongly encourages foreign study in Africa, the Caribbean, and Latin America, during the student’s junior year. While the department actively supports programs in South Africa, Tanzania, Ethiopia, Brazil, and the English-Speaking Caribbean, concentrators must complete at least six (6) courses in residence at Brown.

The Department also encourages the acquisition of language competencies, in addition to English, which are spoken in Africa and the Diaspora. Since no continental African language is currently offered at Brown, concentrators who study abroad and acquire certified competency in any African language are welcome to petition the department for competency credit.

Honors

Africana Studies’ concentrators with outstanding records may be admitted to the department’s Honors Program. Prior to the end of the concentrator’s junior year and while working in consultation with a faculty advisor, the student must prepare a work plan. This plan, not to exceed three (3) typewritten pages, must be approved and signed by the faculty advisor who is to direct the Honor’s thesis. At the onset of the senior year, the Honor’s candidate is expected to have become familiar with the secondary works in the field. Secondary readings should be extensive and be incorporated into the work plan. The Honor’s candidate is also expected to complete a research paper of distinguished quality while enrolled in a 1000-level seminar. Participation in the Africana Studies senior-level capstone seminar, AFRI 1360 is required.

For students completing graduation requirements by the end of Semester I (Fall), projects must be submitted by December 1st. For students completing graduation requirements by Semester II (Spring), the project should be submitted by April 20th. By the end of the fourth (4th) week of the concentrator’s seventh (7th) semester, a written proposal approved by the advisor and a secondary reader must be submitted to the concentration advisor. A progress report, prepared and signed by the student and countersigned by the faculty advisor must be presented to the concentration advisor.

American Studies

The concentration in American Studies seeks to understand American society and cultures as emerging from historical and contemporary processes at work in local, national, and global contexts. Concentrators study four broad themes: social structure and the practices of identity, space and place, production and consumption of culture, and science, technology, and everyday life. The concentration is predicated on the ideal of scholarly engagement with the public, so students take junior seminars that engage some aspect of the public humanities such as public policy, memorialization, community studies or civic engagement. Study abroad is supported and encouraged.

A concentrator in American Studies will be able to:

- Analyze texts, contexts, and data from multiple disciplinary and historical perspectives
- Synthesize research as verbal, visual and/or digital presentations
- Explore the theory and/or practice of the engagement of scholarship with a broader public
- Understand how American society and cultures have been and are being shaped by global flows of people, goods and ideas
- Experiment with new media as critical tools for scholarship

Concentrators have gone on to a vast variety of careers, including law, public humanities, politics, public service, academics, business, creative arts, and medicine.

Each concentrator will take 10 courses including a Junior Seminar as one of four seminars. Courses are organized by the four themes and four approaches that define America Studies at Brown. Each concentrator will use this framework to create an individual focus in consultation with the Concentration Advisor.

Facilities

The focus is the flexible core of the concentration. Here each student builds a coherent and dynamic interdisciplinary structure of related courses that develops his or her compelling interest in some aspect of American experience. The four themes and four approaches provide the foundation on which each student builds a unique concentration in American Studies.

All seniors in the class of 2013 forward will be required to do a capstone electronic portfolio.

Some concentrators may elect to do an Honors Thesis. Study abroad is supported and encouraged.

Four Themes and Four Approaches

American Studies at Brown is concerned with four broad themes:

- Social Structures and the Practices of Identity: How do communities and individuals come to define themselves, and how do others define them, in terms of, among other categories, nation, region, class, race, ethnicity, gender, sex, religion, age and sexuality? How do organizations and institutions function socially and culturally? What are the roles of social movements, economic structures, politics and government?
- Space and Place: How is space organized, and how do people make place? This includes the study of natural and built environments; local, regional, national and transnational communities; and international and inter-regional flows of people, goods, and ideas.
- Production and Consumption of Culture: How do people represent their experiences and ideas as culture? How is culture transmitted, appropriated and consumed? What is the role of artists and the expressive arts, including literature, visual arts and performance?
- Science, Technology, and Everyday Life: How does work and the deployment of science and technology shape American culture? How do everyday social practices of work, leisure and consumption provide agency for people?

How we study

American Studies at Brown emphasizes four intersecting approaches that are critical tools for understanding these themes:

- Cultural and Social Analysis: Reading and analyzing different kinds of texts, including literary, visual, aural, oral, material objects and landscapes. Examining ethnic and racial groups, institutions, organizations and social movements.
- Global/International Contextualization: Comprehending the United States as a society and culture that has been shaped by the historical and contemporary flows of people, goods and ideas from around the world and in turn, learning about the various ways in which America has shaped the world.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
- **New Media Understandings:** Understanding the creation of new forms of discourse, new ways of knowing and new modes of social organization made possible by succeeding media revolutions. Using new media as a critical tool for scholarship.
- **Publicly Engaged Scholarship:** Connecting the theory and the practice of publicly-engaged research, understanding and presentation, from community-based scholarship to ethnography, oral history, and museum exhibits. Civic engagement might include structured and reflective participation in a local community or communities or the application of general theoretical knowledge to understanding social issues.

## Anthropology

Anthropology is the study of human beings from all times and all places, offering holistic, comparative, international, and humanistic perspective. In studying and interpreting the vast range of similarities and differences in human societies and cultures, anthropologists also seek to understand how people themselves make sense of the world in which they live. The Department of Anthropology at Brown is a vibrant, award-winning group of scholars working primarily in the subfields of cultural anthropology, archaeology, and anthropological linguistics. The concentration provides students with a broad introduction to the discipline and includes the major subdisciplines of the field: sociocultural anthropology, archaeology, anthropological linguistics, and biological anthropology.

Concentrators should select their courses in anthropology in consultation with the concentration advisor. At least nine courses in anthropology are required, including:

Select one of the following sociocultural/linguistic anthropology classes:  1
- ANTH 0100 Introduction to Cultural Anthropology
- ANTH 0200 Culture and Human Behavior
- ANTH 0300 Culture and Health
- ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology

Select one of the following biological anthropology/archaeology classes:  1
- ANTH 0310 Human Evolution
- ANTH 0500 Discovering the Past: Introduction to Archaeology and Prehistory
- ANTH 1900 History of Anthropology: Anthropological Theories
- ANTH 1940 Ethnographic Research Methods
- ANTH 1950 Archaeological Field Work
- ANTH 1621 Material Culture Practicum

A course from the ANTH 1910 Series (Normally taken in senior year)  1
Five additional Anthropology courses.  5

Total Credits  9

1 Of the required courses, at least five courses counted toward the concentration must be offered at the 1000-level or above and one course must be on a particular world area.

### Honors

Candidates for honors should apply to the concentration advisor by the end of his or her 6th semester, but no later than the 4th week of the 7th semester. An application consists of a brief statement addressing the focus of a proposed thesis and the names and signatures of two faculty members from the Department of Anthropology who have agreed to serve as the student’s honors committee—one as honors thesis advisor, the other as a reader. Candidates for honors are required to:

1. Fulfill the standard concentration requirements.
2. Take two additional courses, usually, which may be used for thesis preparation.
3. Have a majority of A’s in the concentration.
4. Submit an approved honors thesis.

### Field Work

Concentrators interested in archaeology are urged to obtain training in field archaeology by participating in Brown-sponsored field research, or by participating in an archaeological field school elsewhere.

## Applied Mathematics

The concentration in Applied Mathematics allows students to investigate the mathematics of problems arising in the physical, life and social sciences as well as in engineering. The basic mathematical skills of Applied Mathematics come from a variety of sources, which depend on the problems of interest: the theory of ordinary and partial differential equations, matrix theory, statistical sciences, probability and decision theory, risk and insurance analysis, among others. Applied Mathematics appeals to people with a variety of different interests, ranging from those with a desire to obtain a good quantitative background for use in some future career, to those who are interested in the basic techniques and approaches in themselves. The standard Applied Mathematics concentration leads to either the A.B. or Sc.B. degree. Students may also choose to pursue a joint program with biology, computer science or economics.

Both the A.B. and Sc.B. concentrations in Applied Mathematics require certain basic courses to be taken, but beyond this there is a great deal of flexibility as to which areas of application are pursued. Students are encouraged to take courses in applied mathematics, mathematics and one or more of the application areas in the natural sciences, social sciences or engineering. Whichever areas are chosen should be studied in some depth.

### Standard program for the A.B. degree.

#### Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0900 &amp; MATH 1000</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Program

Ten additional semester courses approved by the Division of Applied Mathematics. These classes must include:  1

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180 Intermediate Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0520 Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0350 Methods of Applied Mathematics I, II</td>
<td>2</td>
</tr>
<tr>
<td>APMA 0360 and Methods of Applied Mathematics I, II</td>
<td>3</td>
</tr>
</tbody>
</table>

Select one course on programming from the following:  4

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0090 Introduction to Mathematical Modeling</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0160 Introduction to Scientific Computing</td>
<td></td>
</tr>
<tr>
<td>CSCI 0040 Introduction to Scientific Computing and Problem Solving</td>
<td></td>
</tr>
<tr>
<td>CSCI 0150 Introduction to Object-Oriented Programming and Computer Science</td>
<td></td>
</tr>
<tr>
<td>CSCI 0170 Computer Science: An Integrated Introduction</td>
<td></td>
</tr>
</tbody>
</table>

Five additional courses, of which four should be chosen from the 1000-level courses taught by the Division of Applied Mathematics.  5

Total Credits  10

1 Substitution of alternate courses for the specific requirements is subject to approval by the division.
2 Concentrators are urged to consider MATH 0540 as an alternative to MATH 0520.
3 APMA 0330, APMA 0340 will sometimes be accepted as substitutes for APMA 0350, APMA 0360.
4 Concentrators are urged to complete their introductory programming course before the end of their sophomore year.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Applied Mathematics-Biology

Applied Mathematics-Biology is an interdepartmental concentration in which students learn to use quantitative methods, including probability, statistical inference, and system dynamics in the study of problems in the biological sciences. With the growth of large-scale genomics data and the use of high throughput technologies, mathematics is becoming an essential analytical tool for biological research. As such, coursework in Applied Math-Biology requires students to gain a strong foundation in mathematical and statistical sciences through courses in the departments of Mathematics and Applied Mathematics. In addition, students must take basic science courses in physics and chemistry. Along with these foundational courses, students work with a faculty advisor to develop an area emphasis in biology (e.g. biochemistry, neurosciences, genetics, etc.). Students earn the Sc.B. degree upon completion of the Applied Mathematics-Biology concentration.

Standard program for the Sc.B. degree

Required coursework in this program aims at ensuring expertise in mathematical and statistical sciences, and their application in biology. The students will focus in particular areas of biology. The program culminates in a senior capstone experience that pairs student and faculty in creative research collaborations. Applied Math – Biology concentrators are prepared for careers in medicine, public health, industry and academic research.

Requirements:

Select one of the following sequences:

<table>
<thead>
<tr>
<th>Sequence</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0350 &amp; APMA 0360 Methods of Applied Mathematics I, II</td>
<td>2</td>
</tr>
<tr>
<td>APMA 0330 &amp; APMA 0340 Methods of Applied Mathematics I, II</td>
<td>2</td>
</tr>
<tr>
<td>APMA 1650 Statistical Inference</td>
<td>1</td>
</tr>
<tr>
<td>Another approved 1000-level APMA course</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 18

Four biology courses agreed upon by the student and advisor, for example:

- **Biochemistry**
  - BIOL 280 Introductory Biochemistry
  - BIOL 1270 Advanced Biochemistry
  - CHEM 0350/0360 Organic Chemistry
  - CHEM 1230 Chemical Biology
  - CHEM 1240 Biochemistry

- **Cells, Tissues, and Organs**
  - BIOL 0800 Principles of Physiology
  - BIOL 1100 Cell Physiology and Biophysics
  - BIOL 1190 Synaptic Transmission and Plasticity
  - BIOL 1090 Polymer Science for Biomaterials
  - BIOL 1120 Biomaterials
  - BIOL 1140 Tissue Engineering
  - BIOL 1150 Stem Cell Engineering

- **Neurosciences**
  - APMA 0410 Mathematical Methods in the Brain Sciences

- **Population Biology and Ecology**
  - BIOL 0380 The Ecology and Evolution of Infectious Disease
  - BIOL 0420 Principles of Ecology
  - BIOL 0430 The Evolution of Plant Diversity
  - BIOL 0480 Evolutionary Biology
  - BIOL 1410 Evolutionary Genetics
  - BIOL 1420 Experimental Design in Ecology
  - BIOL 1430 The Computational Theory of Molecular Evolution
  - BIOL 1460 Microbial Diversity and the Environment

- **Genetics**
  - BIOL 0470 Genetics
  - BIOL 1410 Evolutionary Genetics

Two additional courses in applied math, biology, chemistry, math, or physics. At least one of these must be a directed research course that reflects the theme of this program, for example:

- APMA 1970 Independent Study
- BIOL 1950/1960 Directed Research/Independent Study

Total Credits: 18
Applied Mathematics-Computer Science

The Sc.B. concentration in Applied Math-Computer Science provides a foundation of basic concepts and methodology of mathematical analysis and computation and prepares students for advanced work in computer science, applied mathematics, and scientific computation. Concentrators must complete courses in mathematics, applied math, computer science, and an approved English writing course. While the concentration in Applied Math-Computer Science allows students to develop the use of quantitative methods in thinking about and solving problems, knowledge that is valuable in all walks of life, students who have completed the concentration have pursued graduate study, computer consulting and information industries, and scientific and statistical analysis careers in industry or government.

Requirements for the Standard Track of the Sc.B. degree.

Prerequisites - two semesters of Calculus, for example
- MATH 0090 Introductory Calculus, Part I
- MATH 0100 Introductory Calculus, Part II
- MATH 0170 Advanced Placement Calculus

Concentration Requirements (17 courses)

Core-Math:
- MATH 0180 Intermediate Calculus
  or MATH 0350 Honors Calculus
- MATH 0520 Linear Algebra
  or MATH 0540 Honors Linear Algebra
- or CSCI 0530 Directions: The Matrix in Computer Science

Core-Applied Mathematics:
- APMA 0350 Methods of Applied Mathematics I, II
  or APMA 0360 Methods of Applied Mathematics I, II
- APMA 1170 Introduction to Computational Linear Algebra
  or APMA 1180 Introduction to Numerical Solution of Differential Equations

Core-Computer Science:
Select one of the following Series:

Series A
- CSCI 0150 Introduction to Object-Oriented Programming
  & CSCI 0160 Introduction to Algorithms and Data Structures

Series B
- CSCI 0170 Computer Science: An Integrated Introduction
  & CSCI 0180 Computer Science: An Integrated Introduction

Series C
- CSCI 0190 Accelerated Introduction to Computer Science
  and an additional CS course not otherwise used to satisfy a concentration requirement; (this course may be CSCI 0180, an intermediate-level CS course, or a 1000-level course)

Select three of the following intermediate-level courses, one of which must be math-oriented and one systems-oriented:
- CSCI 0220 Introduction to Discrete Structures and Probability (math)
- CSCI 0320 Introduction to Software Engineering (systems)
- CSCI 0330 Introduction to Computer Systems (systems)
- CSCI 0450 Introduction to Probability and Computing (math)
- CSCI 0510 Models of Computation (math)

Three 1000-level Computer Science courses. These three courses must include a pair of courses with a coherent theme. A list of approved pairs may be found at the approved-pairs web page. You are not restricted to the pairs on this list, but any pair not on the list must be approved by the director of undergraduate studies.

Three 1000-level Applied Mathematics courses approved by the concentration advisor, of which two should constitute a standard sequence or address a common theme. Typical sequences include: APMA 1200/1210 and APMA 1650/1660.

A capstone course: a one-semester course, normally taken in the student’s last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic in depth, to produce a culminating artifact such as a paper or software project.

Total Credits: 17

Requirements for the Professional Track of the Sc.B. degree.

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:
- Which courses were put to use in your summer’s work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Applied Mathematics-Economics

The Applied Mathematics-Economics concentration is designed to reflect the mathematical and statistical nature of modern economic theory and empirical research. This concentration has two tracks. The first is the advanced economics track, which is intended to prepare students for graduate study in economics. The second is the mathematical finance track, which is intended to prepare students for graduate study in finance, or for careers in finance or financial engineering. Both tracks of the applied mathematics-economics concentration have A.B. degree versions and Sc.B. degree versions.

Standard program for the A.B. degree (Advanced Economics track):

Prerequisites:
- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra

Course Requirements:

Applied Math Requirements

(a) 1
<table>
<thead>
<tr>
<th>APMA 0350 &amp; APMA 0360</th>
<th>Methods of Applied Mathematics I, II and Methods of Applied Mathematics I, II</th>
<th>2</th>
</tr>
</thead>
</table>

Select one of the following:  
APMA 0160 Introduction to Scientific Computing  
CSCI 0040 Introduction to Scientific Computing and Problem Solving  
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science  
CSCI 0170 Computer Science: An Integrated Introduction

Select one of the following:  
APMA 1200 Operations Research: Probabilistic Models  
APMA 1210 Operations Research: Deterministic Models  
APMA 1650 Statistical Inference I

Select two of the following:  
APMA 1200 Operations Research: Probabilistic Models  
APMA 1210 Operations Research: Deterministic Models  
APMA 1660 Statistical Inference II  
APMA 1670 Statistical Analysis of Time Series  
APMA 1680 Nonparametric Statistics  
APMA 1690 Computational Probability and Statistics  
APMA 1700 The Mathematics of Insurance  
MATH 1010 Analysis: Functions of One Variable

<table>
<thead>
<tr>
<th>ECON 1130</th>
<th>Intermediate Microeconomics (Mathematical)</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Econometrics I</td>
<td>1</td>
</tr>
</tbody>
</table>

Two 1000-level economics courses from the "mathematical-economics" group, below:  
ECON 1170 Welfare Economics  
ECON 1465 Market Design: Theory and Applications  
ECON 1470 Bargaining Theory and Applications  
ECON 1640 Econometrics II  
ECON 1650 Financial Econometrics  
ECON 1750 Investments II  
ECON 1759 Data, Statistics, Finance  
ECON 1810 Economics and Psychology  
ECON 1820 Behavioral Economics  
ECON 1850 Theory of Economic Growth  
ECON 1860 The Theory of General Equilibrium  
ECON 1870 Game Theory and Applications to Economics

One additional 1000-level economics course.  
Total Credits 12

1 No course may be used to simultaneously satisfy (a) and (b).
2 APMA 0330 and APMA 0340 may be substituted with advisor approval.
3 Or ECON 1110 with permission.

### Standard program for the Sc.B. degree (Advanced Economics track):

#### Prerequisites:
- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra

#### Course requirements:

**Applied Mathematics requirements:**

(a)  
APMA 0350 & APMA 0360 Methods of Applied Mathematics I, II and Methods of Applied Mathematics I, II  

Select one of the following:  
APMA 0160 Introduction to Scientific Computing  
CSCI 0040 Introduction to Scientific Computing and Problem Solving  
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science  
CSCI 0170 Computer Science: An Integrated Introduction

Select one of the following:  
APMA 1200 Operations Research: Probabilistic Models  
APMA 1210 Operations Research: Deterministic Models  
APMA 1650 Statistical Inference I

(b)  
Select two of the following:  
APMA 1200 Operations Research: Probabilistic Models  
APMA 1210 Operations Research: Deterministic Models  
APMA 1660 Statistical Inference II  
APMA 1670 Statistical Analysis of Time Series  
APMA 1680 Nonparametric Statistics  
APMA 1690 Computational Probability and Statistics  
APMA 1700 The Mathematics of Insurance  
MATH 1010 Analysis: Functions of One Variable

### Economics requirements:

- ECON 1130 Intermediate Microeconomics (Mathematical)  
- ECON 1210 Intermediate Macroeconomics  
- ECON 1630 Econometrics I  
- Three 1000-level economics courses from the "mathematical-economics" group, below:
  - ECON 1170 Welfare Economics  
  - ECON 1465 Market Design: Theory and Applications  
  - ECON 1470 Bargaining Theory and Applications  
  - ECON 1640 Econometrics II  
  - ECON 1650 Financial Econometrics  
  - ECON 1750 Investments II  
  - ECON 1759 Data, Statistics, Finance  
  - ECON 1810 Economics and Psychology  
  - ECON 1820 Behavioral Economics  
  - ECON 1850 Theory of Economic Growth  
  - ECON 1860 The Theory of General Equilibrium  
  - ECON 1870 Game Theory and Applications to Economics

Two additional 1000-level economics courses.  
Total Credits 15

1 No course may be used to simultaneously satisfy (a) and (b).
2 APMA 0330 and APMA 0340 may be substituted with advisor approval.
3 Or ECON 1110 with permission.

### Standard program for the A.B. degree (Mathematical Finance track):

#### Prerequisites:
- MATH 0100 Introductory Calculus, Part II  
- MATH 0520 Linear Algebra

#### Requirements:

**Applied Mathematics requirements:**

(a)  
APMA 0350 & APMA 0360 Methods of Applied Mathematics I, II and Methods of Applied Mathematics I, II  

Select one of the following:  
APMA 0160 Introduction to Scientific Computing  
CSCI 0040 Introduction to Scientific Computing and Problem Solving  
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science  
CSCI 0170 Computer Science: An Integrated Introduction

Select one of the following:  
APMA 1200 Operations Research: Probabilistic Models  
APMA 1210 Operations Research: Deterministic Models  
APMA 1650 Statistical Inference I

(b)  
Select two of the following:  
APMA 1200 Operations Research: Probabilistic Models  
APMA 1210 Operations Research: Deterministic Models  
APMA 1660 Statistical Inference II  
APMA 1670 Statistical Analysis of Time Series  
APMA 1680 Nonparametric Statistics  
APMA 1690 Computational Probability and Statistics  
APMA 1700 The Mathematics of Insurance  
MATH 1010 Analysis: Functions of One Variable

### Economics requirements:

- ECON 1130 Intermediate Microeconomics (Mathematical)  
- ECON 1210 Intermediate Macroeconomics  
- ECON 1630 Econometrics I  
- Three 1000-level economics courses from the "mathematical-economics" group, below:
  - ECON 1170 Welfare Economics  
  - ECON 1465 Market Design: Theory and Applications  
  - ECON 1470 Bargaining Theory and Applications  
  - ECON 1640 Econometrics II  
  - ECON 1650 Financial Econometrics  
  - ECON 1750 Investments II  
  - ECON 1759 Data, Statistics, Finance  
  - ECON 1810 Economics and Psychology  
  - ECON 1820 Behavioral Economics  
  - ECON 1850 Theory of Economic Growth  
  - ECON 1860 The Theory of General Equilibrium  
  - ECON 1870 Game Theory and Applications to Economics

Two additional 1000-level economics courses.  
Total Credits 15

1 No course may be used to simultaneously satisfy (a) and (b).
2 APMA 0330 and APMA 0340 may be substituted with advisor approval.
3 Or ECON 1110 with permission.
Undergraduate Concentrations

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).

CSCI 0040 Introduction to Scientific Computing and Problem Solving
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
CSCI 0170 Computer Science: An Integrated Introduction
APMA 1200 Operations Research: Probabilistic Models
APMA 1650 Statistical Inference I

Select one of the following:
APMA 1180 Introduction to Numerical Solution of Differential Equations
APMA 1330 Methods of Applied Mathematics III, IV
APMA 1660 Statistical Inference II
APMA 1670 Statistical Analysis of Time Series
APMA 1680 Nonparametric Statistics
APMA 1690 Computational Probability and Statistics
APMA 1700 The Mathematics of Insurance
APMA 1720 Monte Carlo Simulation with Applications to Finance (most preferred in this list)
MATH 1010 Analysis: Functions of One Variable

Economics Requirements:
ECON 1130 Intermediate Microeconomics (Mathematical) 1
ECON 1210 Intermediate Macroeconomics 1
ECON 1630 Econometrics I 1
Select two 1000-level economics courses from the "financial economics" group: 2
ECON 1650 Financial Econometrics
ECON 1710 Investments I
ECON 1720 Corporate Finance
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1760 Financial Institutions
ECON 1770 Fixed Income Securities
ECON 1790 Corporate Governance and Management
Select one 1000-level economics course from the "mathematical economics" group: 3
ECON 1170 Welfare Economics
ECON 1465 Market Design: Theory and Applications
ECON 1470 Bargaining Theory and Applications
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1820 Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics

Total Credits 12

1 APMA 0330 and APMA 0340 may be substituted with advisor approval
2 Or ECON 1110 with permission.
3 No course may be used to simultaneously satisfy the "financial economics" and the "mathematical economics" requirements.

Standard program for the Sc.B. degree (Mathematical Finance track):

Prerequisites:
MATH 0100 Introductory Calculus, Part II
MATH 0520 Linear Algebra

Course requirements:
Applied Mathematics requirements:
(a) APMA 0350 & APMA 0360 Methods of Applied Mathematics I, II and Methods of Applied Mathematics I, II 1
Select one of the following: 1
APMA 0160 Introduction to Scientific Computing
CSCI 0040 Introduction to Scientific Computing and Problem Solving
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
CSCI 0170 Computer Science: An Integrated Introduction
APMA 1200 Operations Research: Probabilistic Models 1
APMA 1650 Statistical Inference I 1
(b) Select two of the following: 2
APMA 1180 Introduction to Numerical Solution of Differential Equations
APMA 1330 Methods of Applied Mathematics III, IV
APMA 1660 Statistical Inference II
APMA 1670 Statistical Analysis of Time Series
APMA 1680 Nonparametric Statistics
APMA 1690 Computational Probability and Statistics
APMA 1700 The Mathematics of Insurance
APMA 1720 Monte Carlo Simulation with Applications to Finance (most preferred in this list)
MATH 1010 Analysis: Functions of One Variable

Economics requirements:
ECON 1130 Intermediate Microeconomics (Mathematical) 2 1
ECON 1210 Intermediate Macroeconomics 1
ECON 1630 Econometrics I 1
Select three 1000-level economics courses from the "financial economics" group, below: 3
ECON 1650 Financial Econometrics
ECON 1710 Investments I
ECON 1720 Corporate Finance
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1760 Financial Institutions
ECON 1770 Fixed Income Securities
ECON 1790 Corporate Governance and Management
Select two 1000-level economics courses from the "mathematical economics" group: 3
ECON 1170 Welfare Economics
ECON 1465 Market Design: Theory and Applications
ECON 1470 Bargaining Theory and Applications
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1770 Fixed Income Securities
ECON 1790 Corporate Governance and Management

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The concentration in Archaeology and the Ancient World provides an opportunity to explore the multi-faceted discipline of archaeology while examining the critical early civilizations of the so-called Old World that is, the complex societies of the Mediterranean, Egypt, and Ancient Western Asia. Depending on the course of study, concentrators become proficient in an ancient language and are encouraged to demonstrate proficiency in a modern language. Concentrators may pursue capstone research opportunities through summer fieldwork, museum experience, or independent study projects.

The concentration, with its three distinct but overlapping tracks, is intended to allow students flexibility in structuring their own path through this diverse field of study. The concentration is also designed to allow students to build progressively upon what they have learned, moving from introductory courses to upper level seminars.

The three tracks are: Archaeology and the Ancient World; Classical Archaeology; and Egyptian and Ancient Western Asian Archaeology. Archaeology and the Ancient World is the most exploratory of the concentration tracks, and this option emphasizes material culture studies across the full spectrum of the ancient world. Classical Archaeology is intended for those interested chiefly in the ‘classic’ civilizations of the Mediterranean (Greece and Rome), as well as for those interested in both earlier (prehistoric) and later (medieval) periods in that geographic region. Egyptian and Ancient Western Asian Archaeology is intended for those interested chiefly in the cultures of Egypt and Ancient Western Asia (the ancient ‘Near East’—Anatolia, the Levant, Mesopotamia), from prehistoric through Islamic times.

Core Requirements:
The student must take a total of 10 courses, including:

1. One introductory course in archaeological methodology, history and/or theoretical approaches, for example:
   - ARCH 0050 Archaeological Field Work
   - ARCH 0100 Field Archaeology in the Ancient World
   - ANTH 1600 Hunter-Gatherer Adaptations

2. One introductory course in the methodology, history and/or theoretical approaches of ancient art history, for example:
   - ARCH 0030 Art in Antiquity: An Introduction
   - ARCH 0420 Archaeologies of the Greek Past
   - ARCH 0520 Roman Archaeology and Art
   - HIAA 0010 Introduction to the History of Art and Architecture

Two cognate courses, not listed primarily by the Joukowsky Institute, which EITHER relate to the study of the ancient world OR to the discipline of archaeology. Outside courses are chosen with the approval of the concentration advisor from appropriate 1000-level (or above) offerings in other departments such as, but not limited to: Anthropology, Classics, Early Cultures, Egyptology and Ancient Western Asian Studies, Environmental Studies, Geological Sciences, History, History of Art and Architecture, Religious Studies. One term of language study, in any ancient language, may also be counted toward this requirement.

Track Requirements: 6

1. At least two of the courses selected to satisfy these requirements must be at or above the 1000-level.

Capstone Experience and Study Abroad
For each of the tracks, a capstone experience may be substituted for one of these required courses. With the permission of the concentration advisor, up to three successfully completed courses, from relevant and accredited study abroad programs, may be counted towards the concentration requirements.

Honors Concentrations
An Honors concentration in any of these tracks requires the successful completion of all the standard requirements with the addition of an Honors thesis. For the preparation of this thesis, students will ordinarily enroll in ARCH 1970 during the first semester of the senior year and ARCH 1990 during the second semester of the senior year (these courses may not be taken S/NC, nor may they be used to satisfy the standard requirements of the concentration). In order to qualify for honors, students must have received more A’s than B’s in concentration courses completed.

Honors concentrations are recommended for students considering graduate work in the discipline of archaeology. Any student interested in a course of graduate study should speak to the undergraduate concentration advisor as soon as possible, not least for advice about additional forms of preparation. Graduate work in the archaeology of the ancient world, for example, requires knowledge of appropriate ancient, as well as modern, languages. Students should start work on acquiring these skills as early as possible.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The Honors Thesis

The Honors thesis is an extended essay, usually of between 40 and 60 pages in length, written under the supervision of a faculty advisor and second reader. (Where appropriate, the advisor or the reader, but not both of them, may be in a unit other than the Joukowsky Institute for Archaeology and the Ancient World.) The specific topic and approach of the thesis are worked out between the student and the thesis advisor, with assistance from the student’s second reader. This process should begin in the latter part of the student’s junior year. Details on deadlines for a thesis prospectus, for thesis drafts and for a final public presentation of the work are available on request to the Director of Undergraduate Studies. The completed thesis will be evaluated by the advisor and second reader, who will discuss its strengths and weaknesses with the student; they will also agree a grade for ARCH 1970 and ARCH 1990.

Evaluation

The Director of Undergraduate Studies will review the student’s overall record, in addition to the thesis evaluations. If all requirements have been successfully met, the recommendation will be made that the student graduates with Honors.

Astronomy

Along with Greek, Latin, and Mathematics, Astronomy counts as one of the oldest continuously taught subjects in the Brown curriculum. It is the study of the properties of stars, galaxies, and the Universe, and as such combines elements from the disciplines of both Physics and Planetary Geology. Students pursuing this concentration complete introductory coursework in classical mechanics, relativity, and astrophysics, along with mathematics and electromagnetism. They go on to complete courses in stellar and extragalactic astrophysics as well as cosmology. Facilities available to concentrators include the historic Ladd Observatory.

Standard concentration for the A.B. degree

Eleven or twelve courses are required (depending on the satisfaction of prerequisites).

Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity and Quantum Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0270</td>
<td>Introduction to Astronomy</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following Series:

<table>
<thead>
<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td>1-2</td>
</tr>
<tr>
<td>&amp; MATH 0180</td>
<td>and Intermediate Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/</td>
<td>1-2</td>
</tr>
<tr>
<td>&amp; MATH 0200</td>
<td>Engineering)</td>
<td></td>
</tr>
<tr>
<td>MATH 0350</td>
<td>Honors Calculus (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
</tbody>
</table>

Program

Select one of the following mathematics courses:

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
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</tr>
<tr>
<td>MATH 0540</td>
<td>Honors Linear Algebra</td>
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</tr>
<tr>
<td>PHYS 0720</td>
<td>Methods of Mathematical Physics</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
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</table>

Select two of the following astrophysics courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS 1100</td>
<td>Introduction to General Relativity</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 1250</td>
<td>Stellar Structure and the Interstellar Medium</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1270</td>
<td>Extragalactic Astronomy and High-Energy Astrophysics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 1280</td>
<td>Introduction to Cosmology</td>
<td>3</td>
</tr>
</tbody>
</table>

Three additional 1000- or 2000-level courses in physics or a related field, suggestions:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 1670</td>
<td>Statistical Analysis of Time Series</td>
<td>3</td>
</tr>
</tbody>
</table>

Biochemistry & Molecular Biology

Biochemistry is the study of the chemistry of living organisms. Biochemistry and Molecular Biology is an interdisciplinary program drawing on the methods of biology and chemistry to examine how life works at the molecular level, and is applicable across areas within the biomedical sciences including neuroscience, developmental biology, immunology, pharmacology, and synthetic biology. Concentrators in Biochemistry and Molecular Biology begin their learning with foundational courses in biology, mathematics, chemistry, and physics as well as three courses in biochemistry. Elective courses in biology expose students to a variety of additional topics. Students are also expected to become familiar with research methodologies in the field. This is accomplished through two semesters of independent research in collaboration with a member of the faculty from the Chemistry Department or the Division of Biology and Medicine. Students earn the Bachelor of Science degree upon completing the concentration.

Standard program for the Sc.B. degree

Twenty semester courses in biology, chemistry, mathematics, and physics, including the following core requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three courses in physical and organic chemistry, beginning with:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td></td>
</tr>
<tr>
<td>Three courses in mathematics, statistics and/or computer science, typically including MATH 0090, MATH 0100, or equivalent</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Two courses in physics, typically:</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS 0040</td>
<td>Basic Physics</td>
<td></td>
</tr>
<tr>
<td>One course in biophysical chemistry:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CHEM 0400</td>
<td>Biophysical and Bioinorganic Chemistry</td>
<td></td>
</tr>
<tr>
<td>Three courses in biochemistry:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Introductory Biochemistry</td>
<td></td>
</tr>
<tr>
<td>BIOL 1270</td>
<td>Advanced Biochemistry</td>
<td></td>
</tr>
<tr>
<td>CHEM 1230</td>
<td>Chemical Biology</td>
<td></td>
</tr>
<tr>
<td>or CHEM 1240</td>
<td>Biochemistry</td>
<td></td>
</tr>
</tbody>
</table>

Select four of the following electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>Biology of the Eukaryotic Cell</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1090</td>
<td>Polymer Science for Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1260</td>
<td>Physiological Pharmacology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1290</td>
<td>Cancer Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Analysis of Development</td>
<td>1</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The Biology concentration enables students to study, in depth and in breadth, the science of life and living matter. Whether pursuing the A.B. or Sc.B. in biology, students can expect to learn broadly in the discipline through a selection of courses in three areas: cell and molecular biology, structure and function, and organismal biology. In addition, students pursuing the Sc.B complete a thematic cluster through which they gain an in-depth understanding of a particular biological subfield (examples include immunobiology, ecology and evolutionary biology, and biotechnology). The concentration also emphasizes practical skills and experimental design. Concentrators are therefore required to take at least three courses with a laboratory or fieldwork component. Within all of these requirements, students have a high degree of flexibility and choice. Broad research opportunities are also available across several departments within the basic sciences as well.

**Standard program for the A.B. Biology**

The concentration program for the A.B. in Biology consists of four prerequisite courses in math and chemistry and ten courses in biological sciences, including courses in each of the following three areas: Area 1: Cell/Molecular Biology, Area 2: Structure/Function, and Area 3: Organismal Biology. Beyond the area requirement, students may choose up to two, upper-level science courses from an approved selection for science concentrators.

**Prerequisites:**

1. **CHEM 0330** Equilibrium, Rate, and Structure
2. **CHEM 0350** Organic Chemistry
3. **MATH 0090** Introductory Calculus, Part I (or equivalent placement)

One of the following:

1. **MATH 0100** Introductory Calculus, Part II
2. **MATH 0170** Advanced Placement Calculus (or equivalent placement)

Or a statistics course, to be approved by the concentration advisor.

**Core courses:**

1. **BIOL 1540** Molecular Genetics
2. **BIOL 1560** Virology
3. A course from the BIOL 2200 series
4. A course from the BIOL 2210 series
5. **NEUR 1020** Principles of Neurobiology
6. **NEUR 1670** Neuropharmacology and Synaptic Transmission
7. **CHEM 0500** Inorganic Chemistry
8. **CHEM 1140** Physical Chemistry: Quantum Chemistry
9. **CHEM 1220** Computational Tools in Biochemistry and Chemical Biology
10. **CHEM 1230** Chemical Biology
11. **CHEM 1240** Biochemistry
12. **CHEM 1450** Advanced Organic Chemistry

Select two electives from any quantitative science or mathematics course relevant to biochemistry (including courses on the preceding list) and approved by a concentration advisor.

Select two semester courses of independent research approved by a concentration advisor:

- **BIOL 1950/1960** Directed Research/Independent Study
- **CHEM 0970/0980** Undergraduate Research

**Total Credits**: 20

1. Note that the mathematics and physics requirements may be satisfied by Advanced Placement credit.

**Area 1 (Cell/Molecular Biology)**

1. **BIOL 0200** The Foundation of Living Systems (AP credit accepted, placement test available)

2. The Area requirement must be fulfilled by taking at least one course in each of these groups:

**Area 2 (Structure/Function)**

1. **BIOL 0280** Introductory Biochemistry
2. **BIOL 0470** Genetics
3. **BIOL 0500** Cell and Molecular Biology
4. **BIOL 0510** Introductory Microbiology
5. **BIOL 0530** Principles of Immunology
6. **BIOL 1050** Biology of the Eukaryotic Cell
7. **BIOL 1100** Cell Physiology and Biophysics
8. **BIOL 1310** Analysis of Development

**Area 3 (Organismal Biology)**

1. **BIOL 0380** The Ecology and Evolution of Infectious Disease
2. **BIOL 0390** Vertebrate Evolution and Diversity
3. **BIOL 0400** Biological Design: Structural Architecture of Organisms
4. **BIOL 0410** Invertebrate Zoology
5. **BIOL 0420** Principles of Ecology
6. **BIOL 0430** The Evolution of Plant Diversity
7. **BIOL 0460** Insect Biology
8. **BIOL 0475** Conservation Medicine
9. **BIOL 0480** Evolutionary Biology
10. **BIOL 1410** Evolutionary Genetics
11. **BIOL 1430** The Computational Theory of Molecular Evolution
12. **BIOL 1800** Animal Locomotion
13. **BIOL 1880** Comparative Biology of the Vertebrates
14. **ENVS 0455** Coastal Ecology and Conservation
15. **ENVS 0490** Environmental Science in a Changing World

Six additional courses chosen from BIOL and/or NEUR offerings for concentrators

Options within the Core may include up to two related sciences which are approved courses for science concentrators, as follows:

1. **GEOL 0220** Physical Processes in Geology (or above)
2. **CHEM 0360** Organic Chemistry (or above)
3. **CLPS 0110** Mechanisms of Animal Behavior (formerly PSYC 0500)
4. **CLPS 0400** Brain Damage and the Mind (formerly PSYC 0470)
5. **CLPS 0410** Principles of Behavioral Neuroscience (formerly PSYC 0750)
6. **CLPS 1140** Psychophysiology of Sleep and Dreams (formerly PSYC 1020)
7. **CLPS 1193** Laboratory in Genes and Behavior (formerly PSYC 1040)
8. **CSCI 0040** Introduction to Scientific Computing and Problem Solving (and above)
9. **APMA 0330** Methods of Applied Mathematics I, II (and above except APMA 0420))
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus (and above)</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism (and above)</td>
</tr>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>EDUC 1150</td>
<td>Introductory Statistics for Education Research and Policy Analysis</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
</tbody>
</table>

**Total Credits: 14**

1. AP scores of 4 or above may substitute Math courses.
2. At least two BIOL and/or NEUR courses must be above 1000-level. At least three of the BIOL and/or NEUR courses must include lab or fieldwork. BIOL 1950/1960, (Directed Research) may be included, but is not required. If a lab project, this can count for ONE of the three lab course requirements, and one advanced course.
3. No substitutions per above Area list. If a course is listed in more than one area, it may be used to fulfill one of those, the other must be fulfilled by a different course.
4. See listing on website for options. **Related sciences must be above prerequisite level, and suitable for science concentrators.**

**Honors:** Honors in biology requires a thesis and presentation based on a research project (conducted via BIOL 1950/BIOL 1960), and quality grades in the concentration. Guidelines, a manual, and information on faculty research are available in the Biology Undergraduate Affairs Office (Arnold, Room 124) or at the Research Projects Collection, found at [http://biology.brown.edu/bug/honors](http://biology.brown.edu/bug/honors).

**Standard Program for the Sc.B. Biology**

The concentration program for the Sc.B. in Biology consists of five prerequisite courses in math and chemistry and ten courses in biological sciences, including courses in each of the following three areas: Area 1: Cell/Molecular Biology, Area 2: Structure/Function, and Area 3: Organismal Biology, and an additional three course advanced cluster. The biological sciences requirement also requires research (BIOL 1950/BIOL 1960), which should reflect the advanced cluster.

**Prerequisites:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
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</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or equivalent placement)</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td></td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry (and above)</td>
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Select one of the following series:

<table>
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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
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<tr>
<td>&amp; PHYS 0040</td>
<td>Basic Physics</td>
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</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
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</tr>
<tr>
<td>&amp; PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
<td>2</td>
</tr>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td></td>
</tr>
<tr>
<td>&amp; ENGN 0040</td>
<td>and Dynamics and Vibrations</td>
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**Core Courses:**

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1950/1960</td>
<td>Directed Research/Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

The Area requirement must be fulfilled by taking at least one course in each of these groups:

**Area 1 (Cell/Molecular Biology)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0280</td>
<td>Introductory Biochemistry</td>
<td></td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
<td></td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0510</td>
<td>Introductory Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
<td></td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>Biology of the Eukaryotic Cell</td>
<td></td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
<td></td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Analysis of Development</td>
<td></td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
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</tr>
</tbody>
</table>

**Area 2 (Structure/Function)**

<table>
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<tr>
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<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0310</td>
<td>Introduction to Developmental Biology</td>
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<tr>
<td>BIOL 0320</td>
<td>Vertebrate Embryology</td>
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</tr>
<tr>
<td>BIOL 0400</td>
<td>Biological Design: Structural Architecture of Organisms</td>
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<tr>
<td>BIOL 0440</td>
<td>Plant Organism</td>
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<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
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<tr>
<td>BIOL 1110</td>
<td>Topics in Signal Transduction</td>
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<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
<td></td>
</tr>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
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**Area 3 (Organismal Biology)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0380</td>
<td>The Ecology and Evolution of Infectious Disease</td>
<td></td>
</tr>
<tr>
<td>BIOL 0390</td>
<td>Vertebrate Evolution and Diversity</td>
<td></td>
</tr>
<tr>
<td>BIOL 0400</td>
<td>Biological Design: Structural Architecture of Organisms</td>
<td></td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Invertebrate Zoology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0430</td>
<td>The Evolution of Plant Diversity</td>
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<tr>
<td>BIOL 0460</td>
<td>Insect Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0475</td>
<td>Conservation Medicine</td>
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<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 1410</td>
<td>Evolutionary Genetics</td>
<td></td>
</tr>
<tr>
<td>BIOL 1430</td>
<td>The Computational Theory of Molecular Evolution</td>
<td></td>
</tr>
<tr>
<td>BIOL 1800</td>
<td>Animal Locomotion</td>
<td></td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
<td></td>
</tr>
<tr>
<td>ENV 0455</td>
<td>Coastal Ecology and Conservation</td>
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</tr>
<tr>
<td>ENV 0490</td>
<td>Environmental Science in a Changing World</td>
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</table>

Five additional courses chosen from BIOL and/or NEUR offerings for concentrators:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology (or above)</td>
<td></td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
<td></td>
</tr>
<tr>
<td>CLPS 0110</td>
<td>Mechanisms of Animal Behavior (formerly PSYC 0500)</td>
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</tr>
<tr>
<td>CLPS 0400</td>
<td>Brain Damage and the Mind (formerly PSYC 0470)</td>
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</tr>
<tr>
<td>CLPS 0410</td>
<td>Principles of Behavioral Neuroscience (formerly PSYC 0750)</td>
<td></td>
</tr>
<tr>
<td>CLPS 1140</td>
<td>Psychophysiology of Sleep and Dreams (formerly PSYC 1020)</td>
<td></td>
</tr>
<tr>
<td>CLPS 1193</td>
<td>Laboratory in Genes and Behavior (formerly PSYC 1040)</td>
<td></td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving (and above)</td>
<td></td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II (and above except APMA 0420))</td>
<td></td>
</tr>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus (and above)</td>
<td></td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism (and above)</td>
<td></td>
</tr>
</tbody>
</table>

Courses in the history or philosophy of science (e.g., HIST 1190); also a course from the BIOL 1920 series and others by permission of instructor.

**Statistics:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
<td></td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Quantitative Methods in Psychology (formerly COGS/PSYC 0090)</td>
<td></td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search ([http://selfservice.brown.edu/menu](http://selfservice.brown.edu/menu)).
Biomedical Engineering

Biomedical Engineering is an interdisciplinary concentration through which students learn to apply the methods and tools of engineering to the subject matter of biology and the life sciences. Jointly administered by the Division of Engineering and the Division of Biology and Medicine, biomedical engineering offers students the unique opportunity to master much of the essential material and methodologies of two different disciplines. The program emphasizes strong biomedical engineering fundamentals, while allowing students to personalize their curriculum based upon their intellectual and career interests. Students must learn broadly in their field of thematic clusters and across several fields. Because of its highly interdisciplinary nature, at least one semester of research collaboration with a faculty member is also required, though two semesters of research is strongly recommended. The biomedical engineering concentration culminates in the Bachelor of Science degree.

Standard program for the Sc.B. degree

<table>
<thead>
<tr>
<th>Foundational Courses (all required)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030  Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0040  Dynamics and Vibrations</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0190  Advanced Placement Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
</tbody>
</table>

or MATH 0170  Advanced Placement Calculus

<table>
<thead>
<tr>
<th>Required Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0200  Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0180  Intermediate Calculus</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0200  The Foundation of Living Systems</td>
<td>1</td>
</tr>
<tr>
<td>or NEUR 0010  The Brain: An Introduction to Neuroscience</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0330  Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330  Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0350  Organic Chemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0650  Essential Statistics</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 1650  Statistical Inference I</td>
<td>1</td>
</tr>
<tr>
<td>or SOC 1100 Introductory Statistics for Social Research</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0510  Electricity and Magnetism</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0720  Thermodynamics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0810  Fluid Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1230  Instrumentation Design</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0800  Principles of Physiology</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Upper Level Bioengineering Courses (all required)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1110  Transport and Biotransport Processes</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1210  Biomechanics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1490  Biomaterials</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Three Additional Upper Level Bioengineering Courses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select at least one of the following:</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1140  Tissue Engineering</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1150  Stem Cell Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1220  Neuroengineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1400  Analytical Methods in Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1930B  Photonics and Biophotonics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1930R  Molecular and Cell Biology for Engineers</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capstone Design course (required):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1930L  Biomedical Engineering Design, Research and Modeling</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent Research (one recommended):</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Select one of the following:</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1970/1971  Independent Studies in Engineering</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1950/1960  Directed Research/Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

| Total Credits | 21 |

1 Advanced students can replace one math course with CHEM 0360.
2 Advanced students (premeds) can replace with BIOL 0470, BIOL 0530, or other biology courses.

Biophysics

Biophysics is an interdisciplinary field that seeks to understand biological systems using knowledge from physics and chemistry along with mathematical analysis and computer modeling. The broad scope of biophysics requires that students begin their learning with several courses in physics, biology, chemistry, and mathematics. In consultation with a faculty advisor, students then develop a set of courses constituting an advanced area of focus (e.g. structure-function relations of macromolecules, biomechanics of cell cytoskeleton, biotechnology for drug and gene delivery, nanotechnology, etc.). Through a one or two semester research experience, students integrate their learning around a

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
particular problem or question. Because members of the biophysics faculty come from biology, chemistry, and physics, students can choose from a wide variety of research opportunities. The Biophysics concentration culminates in the Bachelor of Science degree.

Additional detailed information about the field of Biophysics may be found at: http://www.biophysics.org/AboutUs/Biophysics/tabid/517/Default.aspx.

Standard program for the Sc.B. degree

Requirements

Select one of the following Series: 2

<table>
<thead>
<tr>
<th>Series</th>
<th>Course Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
</tr>
<tr>
<td>PHYS 0060</td>
<td>and Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>PHYS 0160</td>
<td>and Introduction to Relativity and Quantum Physics</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
</tr>
</tbody>
</table>

Select one of the following: 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0400</td>
<td>Biophysical and Bioinorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
</tr>
<tr>
<td>PHYS 1610</td>
<td>Biological Physics</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or equivalent)</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus (or equivalent)</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
</tr>
</tbody>
</table>

Select two additional biology courses chosen with approval of the advisor. Examples include courses in: 2

<table>
<thead>
<tr>
<th>Track</th>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell Biology</td>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>Biology of the Eukaryotic Cell</td>
<td></td>
</tr>
<tr>
<td>BIOL 1200</td>
<td>Protein Biophysics and Structure</td>
<td></td>
</tr>
<tr>
<td>Physiology</td>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
<td></td>
</tr>
<tr>
<td>BIOL 1190</td>
<td>Synaptic Transmission and Plasticity</td>
<td></td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
<td></td>
</tr>
<tr>
<td>Pharmacology</td>
<td>BIOL 1260</td>
<td>Physiological Pharmacology</td>
</tr>
<tr>
<td>Biotechnology</td>
<td>BIOL 1090</td>
<td>Polymer Science for Biomaterials</td>
</tr>
<tr>
<td>BIOL 1120</td>
<td>Biomaterials</td>
<td></td>
</tr>
<tr>
<td>BIOL 1140</td>
<td>Tissue Engineering</td>
<td></td>
</tr>
</tbody>
</table>

Select six additional intermediate or advanced level courses, chosen from biology (e.g., biochemistry, genetics, physiology, physics, chemistry, and/or computer sciences and mathematics). Examples include: 6

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>BIOL 0280</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1190</td>
<td>Synaptic Transmission and Plasticity</td>
</tr>
<tr>
<td>Physics</td>
<td>PHYS 0500</td>
</tr>
<tr>
<td>PHYS 0560</td>
<td>Experiments in Modern Physics</td>
</tr>
<tr>
<td>PHYS 1410</td>
<td>Quantum Mechanics A</td>
</tr>
<tr>
<td>PHYS 1420</td>
<td>Quantum Mechanics B</td>
</tr>
<tr>
<td>PHYS 1610</td>
<td>Biological Physics</td>
</tr>
<tr>
<td>Mathematics</td>
<td>MATH 0520</td>
</tr>
</tbody>
</table>

Total Credits: 19

Business, Entrepreneurship and Organizations

Business, Entrepreneurship and Organizations (BEO), formerly Commerce, Organizations and Entrepreneurship (COE) is a multidisciplinary concentration that provides a rigorous and synergistic program in the study of commercial activity grounded in economics, sociology and engineering. BEO focuses on the formation, growth, and organization of new ventures, innovation in commercial applications, financial markets and the marketplace, and management and organizational theory. Concentrators seek to understand the basic principles, approaches and vocabulary relevant to the study of entrepreneurship from the disciplines of economics, organizational sociology and engineering. Building on this multidisciplinary base, students develop specialized expertise in one of the three disciplinary approaches, with special emphasis on critical reasoning and quantitative research methods. In senior year capstone projects, students apply and integrate multi-disciplinary learning by working in groups on real world projects, including the creation of new ventures.

The three tracks of the concentration are as follows:

1. Business Economics,
2. Organizational Studies, or
3. Entrepreneurship and Technology Management.

Upon completion of all concentration requirements, students receive the Bachelor of Arts (A.B.) degree in Business, Entrepreneurship and Organizations.

The Curriculum

Business Economics Track

Foundation Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1311</td>
<td>Micro-Organizational Theory: Social Behavior in Organizations</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1315</td>
<td>Macro-Organizational Theory: Organizations in Social Context</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0020</td>
<td>Transforming Society-Technology and Choices for the Future</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1010</td>
<td>The Entrepreneurial Process: Innovation in Practice</td>
<td>1</td>
</tr>
</tbody>
</table>

Math and Statistics Options

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Choose from the following:  

MATH 0070  Calculus with Applications to Social Science  
MATH 0090  Introductory Calculus, Part I  
MATH 0050/0060  Analytic Geometry and Calculus  
ECON 1620  Introduction to Econometrics  

**Track Requirements**  

ECON 0710  Financial Accounting  
ECON 1210  Intermediate Macroeconomics  
ECON 1710  Investments I  
ECON 1720  Corporate Finance  

One Data Methods-intensive course from the following list:  

ECON 1310  Labor Economics  
ECON 1360  Health Economics  
ECON 1390  Research Methods for Economists  
ECON 1510  Economic Development  
ECON 1520  The Economic Analysis of Institutions  
ECON 1630  Econometrics I  
ECON 1640  Econometrics II  
ECON 1650  Financial Econometrics  
ECON 1750  Investments II  
ECON 1759  Data, Statistics, Finance  
ECON 1765  Finance, Regulation, and the Economy: Research  

One 1000-level economics course, including a second data methods intensive course from the list above  

A one-semester required capstone from the BEO 1930 series  

1 Or an optional two-semester capstone from the BEO 1930 and 1940 series  

| Total Credits | 15 |

Select one of the following Advanced Organization Studies Courses:  

SOC 1060  Leadership in Organizations  
SOC 1080  Groups in Organizations  
SOC 1540  Human Needs and Social Services  
SOC 1870A  Investing in Social Change  
SOC 1871M  Theories of the Third Sector and Civil Society  
SOC 1871O  Law, Innovation and Entrepreneurship  
SOC 2060  Complex Organizations and Health Policy  
SOC 2960M  Sociology of Organizations Graduate Seminar  
CLPS 1730  Psychology in Business and Economics  
PPAI 1700V  Nonprofit Organizations  
PPAI 1700Y  Crisis Management  
PPAI 2170  Leadership and Organization  
PPAI 2550  Managing and Leading in Public Affairs  

Select two of the following Organization-Relevant Electives:  

Any from the Advanced Research Methods or Advanced Organization-Studies lists.  

SOC 1114  Law and Society  
SOC 1410  Aging and the Quality of Life  
SOC 1550  Sociology of Medicine  
SOC 1870L  The Myth of Markets: Exploring the Social Side of Economics  
SOC 1871C  Sociology of the Legal Profession  
AMST 1610A  American Advertising: History and Consequences  
EDUC 1020  The History of American Education  
EDUC 1040  Sociology of Education  
EDUC 1150  Education, the Economy and School Reform  
EDUC 1200  History of American School Reform  
EDUC 1650  Policy Implementation in Education  
EDUC 1730  American Higher Education in Historical Context  
ETHN 1890C  Business, Culture, and Globalization: An Ethnographic Perspective  
PHP 2400  The U.S. Health Care System: Case Studies in Financing, Delivery, Regulation and Public Health  
POLS 1150  Prosperity: The Ethics and Economics of Wealth Creation  
POLS 1240  Politics, Markets and States in Developing Countries  
POLS 1820W  Market Liberalism: Origins, Principles and Contemporary Applications  
PPAI 1520  Law and Economic Development: Theory, Policy, and Institutions  
PPAI 1700B  Social Welfare Policy in the United States  
PPAI 1700K  Health Policy Challenges  
PPAI 1700N  Legal Policy Challenges: Federalism and Separation of Powers Issues Under the U.S. Constitution  
PPAI 1700R  Urban Revitalization: Lessons from the Providence Plan  

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
**Chemical Physics**

Chemical Physics is an interdisciplinary field at the crossroads of chemistry and physics and is administered jointly by the two departments. The concentration provides students with a broad-based understanding in fundamental molecular sciences, as well as a background for graduate studies in physical chemistry, chemical physics, or molecular engineering. Concentrators are required to take twenty courses in chemistry, physics, and mathematics, although approved courses in applied mathematics, biology, computer science, geological sciences, or engineering may be substitutes. Chemical Physics concentrators are also advised to take at least six courses in the humanities and social sciences. Chemical Physics concentrators at all levels (first-year through seniors) are actively involved in research with faculty members on cutting edge research projects. The Sc.B. degree provides a thorough foundation for further graduate study or for entry-level technical positions in each area. Students seeking the Sc.B. may also pursue the standard Chemistry concentration or one of the two optional tracks: Chemical Biology or Materials Chemistry. Students may also pursue the A.B. degree in Chemistry, which provides a core education in the discipline.

### Standard program for the Sc.B. degree

Twenty-one semester courses in chemistry, physics, and mathematics, with a minimum of four semester courses in mathematics. Core courses are:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0030</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0050</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and Statistical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity and Quantum Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following laboratory courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1160</td>
<td>Physical Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 0560</td>
<td>Experiments in Modern Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS 1560</td>
<td>Modern Physics Laboratory</td>
<td></td>
</tr>
<tr>
<td>Select one course in statistical mechanics:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and Statistical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>Seven courses, primarily at the 1000 or 2000 level, in chemistry or physics.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Select two semesters of independent study:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM 0970/0980</td>
<td>Undergraduate Research</td>
<td></td>
</tr>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 21

1. Other approved courses in applied mathematics, biology, computer science, geological sciences, or engineering may be substituted for some of the twenty-one.

2. Students are advised to take at least six courses in the humanities and social sciences.

### Chemistry

The Chemistry concentration offers courses and research opportunities that range from fundamental studies involving the characterization and preparation of synthetic and naturally occurring molecules, to interdisciplinary studies at the interfaces of chemistry with biology, medicine, physics, engineering, and nanoscience. As early as their first year, undergraduates are able to work one-on-one or in small groups with faculty members on cutting edge research projects. The Sc.B. degree provides a thorough foundation for further graduate study or for entry-level technical positions in each area. Students seeking the Sc.B. may also pursue the standard Chemistry concentration or one of the two optional tracks: Chemical Biology or Materials Chemistry. Students may also pursue the A.B. degree in Chemistry, which provides a core education in the discipline.

### Standard program for the A.B. degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0030</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0050</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0060</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0080</td>
<td>Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and Statistical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1160</td>
<td>Physical Chemistry Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

Two advanced science/math electives.

Total Credits: 9

1. Note that the physical chemistry courses (CHEM 1140, CHEM 1150, CHEM 1160) have mathematics and physics prerequisites.

2. At least one must be a chemistry course. BIOL 0280 is credited as an elective for the chemistry concentration.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Standard program for the Sc.B. degree

The Chemistry Department offers three tracks for the Sc.B. Chemistry Concentration – a Chemistry track, a Chemical Biology track and a Materials Chemistry track. These tracks are not separate concentrations – your degree will still be an Sc.B. in Chemistry. The Chemistry Biology track is designed for students who have a strong interest in the interface of chemistry with biology. The Materials Chemistry track is designed for students who have a strong interest in the interface of chemistry with nanoscience and materials science.

Concentrating in Chemistry – Three tracks

The required/recommended courses for the three tracks are given below.

Chemistry Track:
- CHEM 0330 Equilibrium, Rate, and Structure 1
- CHEM 0350 Organic Chemistry 1
- CHEM 0360 Organic Chemistry 1
- CHEM 0500 Inorganic Chemistry 1
- CHEM 0970 Undergraduate Research 1
- CHEM 0980 Undergraduate Research 1
- CHEM 1140 Physical Chemistry: Quantum Chemistry 1
- CHEM 1150 Physical Chemistry: Thermodynamics and Statistical Mechanics 1
- CHEM 1160 Physical Chemistry Laboratory 1
- Two Math courses 2
- Two Physics courses 2
- Seven electives (at least three must be in Chemistry) 1
- Total Credits 20

Chemical Biology Track:
- CHEM 0330 Equilibrium, Rate, and Structure 1
- CHEM 0350 Organic Chemistry 1
- CHEM 0360 Organic Chemistry 1
- CHEM 0400 Biophysical and Bioinorganic Chemistry 1
- CHEM 0970 Undergraduate Research 1
- CHEM 0980 Undergraduate Research 1
- CHEM 1140 Physical Chemistry: Quantum Chemistry 1
- CHEM 1230 Chemical Biology 1
- CHEM 1240 Biochemistry 1
- BIOL 0280 Introductory Biochemistry 1
- Two Math courses 2
- Two Physics courses 2
- Select three of the following:
  - BIOL 0470 Genetics 1
  - BIOL 0500 Cell and Molecular Biology 1
  - BIOL 0510 Introductory Microbiology 1
  - BIOL 0530 Principles of Immunology 1
  - BIOL 0800 Principles of Physiology 1
  - NEUR 1020 Principles of Neurobiology 1
- Three other electives 1
- Total Credits 20

Materials Chemistry Track:
- CHEM 0330 Equilibrium, Rate, and Structure 1
- CHEM 0350 Organic Chemistry 1
- CHEM 0360 Organic Chemistry 1
- CHEM 0500 Inorganic Chemistry 1
- CHEM 0970 Undergraduate Research 1
- CHEM 0980 Undergraduate Research 1
- CHEM 1060 Advanced Inorganic Chemistry 2
- CHEM 1140 Physical Chemistry: Quantum Chemistry 1
- CHEM 1150 Physical Chemistry: Thermodynamics and Statistical Mechanics 1
- CHEM 1700 Nanoscience: Synthesis and Applications 1
- Two Math courses 2
- Two Physics courses 2
- BIOL 1090 Polymer Science for Biomaterials 1
- Five electives, at least two must be chemistry courses. 1
- Total Credits 20

1 BIOL 0280 is credited as an elective for the chemistry concentration.
2 For students with a more Engineering bent, the following substitutions can be made - ENGN 0030/ENGN 0040 can be substituted for PHYS; ENGN 0410 can be substituted for CHEM 1060; ENGN 0720 for CHEM 1150.

In each of these cases, CHEM 0970/CHM 0980 should be carried out with a faculty member with an appointment in the Chemistry Department. Research with faculty advisors outside Chemistry may be allowed in some special cases. In this event, the student should a) prepare a proposal for the research to be carried out and b) identify a faculty member in the Chemistry Department who will serve as a second advisor and the second reader for the thesis. A thesis is required to be eligible for graduation with Honors.

Classics

Classics focuses on ancient languages, literature, history, and culture. It provides specialized training for students intending to enter graduate school, and a broad liberal education for those with more general interests. Students may choose to study Ancient Greek, Latin, Sanskrit, or Modern Greek and gain knowledge in literature, mythology, ancient history, philosophy, and religion. Students may either pursue the standard Classics concentration - the most popular choice - or they may pursue one of the four optional tracks: Greek, Latin, Greek and Latin, or Sanskrit. Their studies culminate in a seminar for juniors and seniors and in the composition of a senior thesis or other capstone project.

All tracks except "Greek and Latin" and "Sanskrit" require the satisfactory completion of eight courses as described below. Programs are flexible and students are encouraged to discuss their plans with the concentration advisor. The introductory courses in Greek and Latin may not usually be counted toward a concentration.

Concentrators are strongly encouraged to integrate their studies in various fields of Classics by writing a senior thesis (which can, but need not, be an honors thesis; is more demanding than an ordinary term paper; and preferably transcends the subject matter of one particular subdiscipline of classics); by participating in a seminar for juniors and seniors (which is designed to provide insight into the relationships among various parts of ancient studies); or by undertaking another kind of senior project that achieves the same goals and is acceptable to the department.

Classics

One course in Greek or Latin on the 1000-level or above.
- Select one of the following series:
  - CLAS 1210 & CLAS 1220 The History of Greece from the Archaic Times to the Death of Alexander
  - CLAS 1310 & CLAS 1320 Roman History I: The Rise and Fall of an Imperial Republic and Roman History II: The Roman Empire and Its Impact

Three other courses in classics, including classical archaeology, Greek, Latin, Sanskrit, or related areas to be approved by the concentration advisor.
- Total Credits 189

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Greek

Four Greek courses on the 1000-level or above, at least one of which is to be:

- GREK 1810 Early Greek Literature
- GREK 1820 Fifth Century Survey
- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander
- CLAS 1220 The History of Greece from Archaic Times to The Death of Alexander

Two additional courses in classics, including classical archaeology, Greek, Latin, or related areas to be approved by the concentration advisor.

Total Credits: 8

Latin

Four Latin courses on the 1000-level or above, at least one of which is to be:

- LATN 1810 Survey of Republican Literature
- LATN 1820 Survey of Roman Literature II: Empire
- CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic
- CLAS 1320 Roman History II: The Roman Empire and Its Impact

Two additional courses in classics, including classical archaeology, Greek, Latin, or related areas to be approved by the concentration advisor.

Total Credits: 8

Greek and Latin

Four Latin courses on the 1000-level or above, at least one of which is to be:

- LATN 1810 Survey of Republican Literature
- LATN 1820 Survey of Roman Literature II: Empire
- GREK 1810 Early Greek Literature
- GREK 1820 Fifth Century Survey

Four Greek courses on the 1000-level or above, at least one of which is to be:

- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander
- CLAS 1220 The History of Greece from Archaic Times to The Death of Alexander
- CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic
- CLAS 1320 Roman History II: The Roman Empire and Its Impact

Total Credits: 12

Sanskrit

Four 1000-level courses in Sanskrit.

The requirements for Classics, Greek, or Latin with the provision that courses in Sanskrit beyond the first four may count towards the "five other courses" required of concentrators in Classics, or the "two additional courses" required of concentrators in Greek and of concentrators in Latin.

Total Credits: 12

1 Students interested in Sanskrit may compare the concentration in South Asian Studies - Ancient India.

Honors

Students may earn honors in each concentration by presenting a satisfactory thesis, for the preparation of which they will ordinarily enroll in the relevant 1970 and 1990 courses; these courses may not be used to satisfy the standard requirements for a concentration. In order to qualify for honors, students must maintain a B average overall.

Cognitive Neuroscience

Cognitive neuroscience is the study of higher cognitive functions in humans and their underlying neural bases. It is an integrative area of study drawing primarily from cognitive science, psychology, neuroscience, and linguistics. There are two broad directions that can be taken in this concentration - one is behavioral/experimental and the other is computational/modeling. In both, the goal is to understand the nature of cognition from a neural perspective. The standard concentration for the Sc.B. degree requires courses on the foundations, systems level, and integrative aspects of cognitive neuroscience as well as laboratory and elective courses that fit within a particular theme or category such as general cognition, vision, language or computational/modeling. Concentrators must also complete a senior seminar course or an independent research course. Students may also participate in the work of the Brown Institute for Brain Science, an interdisciplinary program that unites ninety faculty from eleven departments.

Standard program for the ScB degree

Concentration Courses

A total of 16 courses are required for the concentration. Each student is required to pass 9 courses designed to introduce students to the foundations (5), systems level and integrative aspects (4) which uniquely define cognitive neuroscience; two laboratory courses; four elective courses; and either a senior seminar course CLPS 1900 or an independent research course. The laboratory and elective courses should fit within a particular theme or category such as general cognition, vision, language, or computational/modeling. The design of the concentration and selection of courses should be made in consultation with the faculty advisor.

Foundation Courses:

- BIOL 0200 The Foundation of Living Systems
- CLPS 0200 Human Cognition (formerly COGS 0420)

Select one of the following:

- CLPS 0900 Quantitative Methods in Psychology (formerly COGS/PSYC 0090)
- CLPS 2906 Experimental Design (formerly PSYC 2060)
- MATH 0090 Introductory Calculus, Part I (or equivalent)
- NEUR 0010 The Brain: An Introduction to Neuroscience

Systems Level and Integrative Courses:

- CLPS 0400 Mind and Brain: Introduction to Cognitive Neuroscience (formerly COGS 0720)
- CLPS 0400 Brain Damage and the Mind (formerly PSYC 0470)
- CLPS 1291 Computational Cognitive Science (formerly COGS 1280)
- CLPS 1492 Computational Cognitive Neuroscience (formerly COGS 1460)
- APMA 0410 Mathematical Methods in the Brain Sciences
- NEUR 1030 Neural Systems

Laboratory Courses (select two):

- CLPS 1192 Experimental Analysis of Animal Behavior and Cognition (formerly PSYC 1200)
- CLPS 1193 Laboratory in Genes and Behavior (formerly PSYC 1040)
- CLPS 1290 Laboratory in Cognitive Processes (formerly COGS 1530)
- CLPS 1490 Functional Magnetic Resonance Imaging: Theory and Practice (formerly PSYC 1840)
- CLPS 1491 Neural Modeling Laboratory (formerly COGS 1020)
- CLPS 1510 Human Sensory Processing (formerly PSYC 1190)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>CLPS 1690</td>
<td>Laboratory in Developmental Psychology (formerly COGS 1610)</td>
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<td>CLPS 1791</td>
<td>Laboratory in Social Cognition (formerly PSYC 1540)</td>
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<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics (formerly COGS 1450)</td>
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<td>CLPS 1891</td>
<td>Research Methods in Physiologic and Acoustic Phonetics (formerly COGS 1240)</td>
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<tr>
<td>CLPS 1970</td>
<td>Directed Reading in Cognitive, Linguistic and Psychological Sciences (formerly COGS 1980)</td>
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<td>NEUR 1970</td>
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<td>NEUR 1600</td>
<td>Experimental Neurobiology</td>
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<td>Structure of the Nervous System</td>
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<td>Neuroparmacology and Synaptic Transmission</td>
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<td>CLPS 0040</td>
<td>Mind and Brain: Introduction to Cognitive Neuroscience (formerly COGS 0720)</td>
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<td>CLPS 0210</td>
<td>Human Thinking and Problem-Solving (formerly COGS 0480)</td>
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<td>Making Decisions (formerly COGS 0500)</td>
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<td>Principles of Behavioral Neuroscience (formerly PSYC 0750)</td>
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<td>CLPS 0610</td>
<td>Children’s Thinking: The Nature of Cognitive Development (formerly COGS 0630)</td>
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<td>CLPS 1100</td>
<td>Animal Cognition (formerly PSYC 1800)</td>
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<td>CLPS 1140</td>
<td>Psychophysiology of Sleep and Dreams (formerly PSYC 0210)</td>
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<td>Concepts and Categories (formerly COGS 1870)</td>
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<td>3D Shape Perception (formerly COGS 1860B)</td>
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<td>CLPS 1611</td>
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<td>CLPS 1821</td>
<td>Neuroimaging and Language (formerly COGS 1840B)</td>
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<td>NEUR 0650</td>
<td>Biology of Hearing</td>
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<td>NEUR 1680</td>
<td>Computational Neuroscience</td>
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<td>NEUR 1740</td>
<td>The Diseased Brain: Mechanisms of Neurological and Psychiatric Disorders</td>
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<td>NEUR 1930A</td>
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<td>NEUR 1930B</td>
<td>From Neuropsychology to Perception</td>
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<td>NEUR 1930F</td>
<td>Brain Interfaces for Humans</td>
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<td>CLPS 1550</td>
<td>The Psychology of Aversion (formerly PSYC 1520)</td>
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<tr>
<td>CSCI 1410</td>
<td>Introduction to Artificial Intelligence</td>
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<td>CSCI 1460</td>
<td>Introduction to Computational Linguistics</td>
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<tr>
<td>CSCI 1480</td>
<td>Building Intelligent Robots</td>
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<td>CSCI 1950A</td>
<td>Computational Modeling and Algorithmic Thinking</td>
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<td>ENGN 1220</td>
<td>Neuroengineering</td>
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<td>ENGN 1610</td>
<td>Image Understanding</td>
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<tr>
<td>NEUR 1680</td>
<td>Computational Neuroscience</td>
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</tbody>
</table>

One senior seminar course CLPS 1900 or an independent research course.

Total Credits: 16

1. Note: Students wishing to pursue a computational/modeling track are encouraged to take APMA 1650.
2. Please note that due to enrollment limits in some lab courses, priority may be given to concentrators in that department. Students should therefore be prepared to choose from the other laboratory options.
3. May be used for only one laboratory credit.
4. Normally only one elective course that is below the 1000-level may count towards the elective courses required. An appropriate (but additional) laboratory course may be used in lieu of one of the four elective courses. Appropriate Topics course offerings (not listed above) may also count as electives with the approval of the concentration advisor.
5. Students are advised to take APMA 0330 (Methods of Applied Analysis I) and APMA 0340 (Methods of Applied Analysis II) as their two supporting science courses. Note that MATH 0100 is a prerequisite for these courses. See CLPS listings (above) for other computational/modeling courses. See CLPS topics listing for other computational/modeling courses.

### Honors

Students who would like to pursue a degree with honors are normally expected to have half of their grades as A (or equivalent) within the concentration and are required to satisfactorily complete a written thesis and an oral presentation.

### Cognitive Science

The field of Cognitive Science uses scientific methods of experimentation, computational modeling, and brain imaging to study mental abilities such as perception, action, memory, cognition, speech, and language, as well as the development and evolution of these processes. Students must become knowledgeable in four areas of emphasis: perception,
cognition, language, and cognitive neuroscience, as well as a set of methods relevant to Cognitive Science research. Students then create their own focus area of study, potentially integrating coursework from a diverse subset of fields including Anthropology, Applied Math, Education, Neuroscience, and Philosophy as well as the core disciplines present in the Cognitive, Linguistic, and Psychological Sciences Department. The A.B. program is primarily for students interested in studying human mental processes. The Sc.B. program is designed for students who wish to develop a stronger background in Cognitive Science and a research orientation to the study of the mind.

The A.B. program requires 13 credits and is primarily for students interested in studying human mental processes. The Sc.B. program requires 18 courses and is intended for students who want to pursue an avenue(s) of study at a deeper level. We recommend that prospective concentrators register for CLPS 0020 or one of the other core courses preferably in their first or second year.

I. Standard program for the A.B. degree: 13 courses

<table>
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<tr>
<th>Gateway</th>
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<tbody>
<tr>
<td>CLPS 0020</td>
<td>Approaches to the Mind: Introduction to Cognitive Science (formerly COGS 0010)</td>
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</tbody>
</table>

Required core courses

| CLPS 0200 | Human Cognition (formerly COGS 0420) | 1 |
| CLPS 0300 | Introduction to Linguistic Theory (formerly COGS 0410) | 1 |
| CLPS 0500 | Perception and Mind (formerly COGS/PSYC 0440) | 1 |

Select one of the following:

| NEUR 0010 | The Brain: An Introduction to Neuroscience | 1 |
| CLPS 0040 | Mind and Brain: Introduction to Cognitive Neuroscience (formerly COGS 0720) | 1 |

Required courses in skills and methodology

One Experimental Laboratory such as:

| CLPS 1090 | Research Methods in Psychology (formerly PSYC 1090) | 1 |
| CLPS 1190 | Techniques in Physiological Psychology (formerly PSYC 1030) | 1 |
| CLPS 1192 | Experimental Analysis of Animal Behavior and Cognition (formerly PSYC 1200) | 1 |
| CLPS 1290 | Laboratory in Cognitive Processes (formerly COGS 1530) | 1 |
| CLPS 1490 | Functional Magnetic Resonance Imaging: Theory and Practice (formerly PSYC 1840) | 1 |
| CLPS 1590 | Visualizing Vision (formerly COGS 1440) | 1 |
| CLPS 1690 | Laboratory in Developmental Psychology (formerly COGS 1610) | 1 |
| CLPS 1890 | Laboratory in Psycholinguistics (formerly COGS 1450) | 1 |

One Basic Computation Course such as:

| CLPS 1291 | Computational Cognitive Science (formerly COGS 1280) | 1 |
| CLPS 1491 | Neural Modeling Laboratory (formerly COGS 1020) | 1 |
| CLPS 1492 | Computational Cognitive Neuroscience (formerly COGS 1460) | 1 |
| CSCI 0040 | Introduction to Scientific Computing and Problem Solving | 1 |
| CSCI 0150 | Introduction to Object-Oriented Programming and Computer Science | 1 |
| CSCI 0170 | Computer Science: An Integrated Introduction | 1 |
| CSCI 0180 | Computer Science: An Integrated Introduction | 1 |

One course in Statistical Analysis such as:

| CLPS 0900 | Quantitative Methods in Psychology (formerly COGS/PSYC 0900) | 1 |
| APMA 1650 | Statistical Inference I | 1 |

Required Capstone

| CLPS 1900 | Senior Seminar in Cognitive Science (formerly COGS 1950) | 1 |

Electives 

Choose four from the following:

| ANTH 0800 | Sound and Symbols: Introduction to Linguistic Anthropology |  |
| ANTH 1800 | Sociolinguistics, Discourse and Dialogue |  |
| APMA 1360 | Topics in Chaotic Dynamics |  |
| APMA 1650 | Statistical Inference I |  |
| APMA 1660 | Statistical Inference II |  |
| APMA 1670 | Statistical Analysis of Time Series |  |
| APMA 1680 | Nonparametric Statistics |  |
| APMA 1690 | Computational Probability and Statistics |  |
| BIOL 0480 | Evolutionary Biology |  |
| NEUR 0650 | Biology of Hearing |  |
| NEUR 1030 | Neural Systems |  |
| NEUR 1040 | Developmental Neurobiology |  |
| NEUR 1660 | Neural Basis of Cognition |  |
| NEUR 1680 | Computational Neuroscience |  |
| CLPS 0100 | Learning and Conditioning (formerly PSYC 0900) |  |
| CLPS 0210 | Human Thinking and Problem-Solving (formerly COGS 0480) |  |
| CLPS 0220 | Making Decisions (formerly COGS 0500) |  |
| CLPS 0400 | Brain Damage and the Mind (formerly PSYC 0470) |  |
| CLPS 0510 | Perception, Illusion, and the Visual Arts (formerly COGS 0110) |  |
| CLPS 0530 | Making Visual Illusions |  |
| CLPS 0600 | Child Development (formerly PSYC 0810) |  |
| CLPS 0610 | Children’s Thinking: The Nature of Cognitive Development (formerly COGS 0630) |  |
| CLPS 0800 | Language and the Mind (formerly COGS 0450) |  |
| CLPS 0810 | The Biology and Evolution of Language (formerly COGS 0320) |  |
| CLPS 1100 | Animal Cognition (formerly PSYC 1800) |  |
| CLPS 1130 | Psychology of Timing (formerly PSYC 1790) |  |
| CLPS 1200 | Thinking (formerly COGS 1520) |  |
| CLPS 1210 | Human Memory and Learning (formerly COGS 1560) |  |
| CLPS 1211 | Human and Machine Learning (formerly COGS 1680) |  |
| CLPS 1220 | Concepts and Categories (formerly COGS 1870) |  |
| CLPS 1240 | Reasoning and Problem Solving (formerly COGS 1880) |  |
| CLPS 1241 | Causal Reasoning (formerly COGS 1860C) |  |
| CLPS 1400 | The Neural Bases of Cognition (formerly PSYC 1880) |  |
| CLPS 1470 | Mechanisms of Motivated Decision Making |  |
| CLPS 1500 | Ecological Approach to Perception and Action (formerly COGS 1380) |  |
| CLPS 1510 | Human Sensory Processing (formerly PSYC 1190) |  |
| CLPS 1520 | Computational Vision (formerly COGS 1200) |  |
| CLPS 1530 | 3D Shape Perception (formerly COGS 1860B) |  |
| CLPS 1540 | Human Factors (formerly COGS 1160) |  |
| CLPS 1600 | History and Theories of Child Development (EDUC 1710) |  |
| CLPS 1610 | Cognitive Development (formerly COGS 1180) |  |
| CLPS 1730 | Psychology in Business and Economics |  |
| CLPS 1800 | Language Processing (formerly COGS 1410) |  |
| CLPS 1810 | Syntactic Theory and Syntactic Processing (formerly COGS 1420) |  |

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
One Basic Computation Course such as:

- CLPS 1291 Computational Cognitive Science (formerly COGS 1280)
- CLPS 1491 Neural Modeling Laboratory (formerly COGS 1020)
- CLPS 1492 Computational Cognitive Neuroscience (formerly COGS 1460)
- CSCI 0040 Introduction to Object-Oriented Programming and Computer Science
- CSCI 0170 Computer Science: An Integrated Introduction
- CSCI 0180 Computer Science: An Integrated Introduction
- CLPS 0800 Language and the Mind (formerly COGS 1480)
- APMA 1360 Topics in Chaotic Dynamics
- APMA 1590 Visualizing Vision (formerly COGS 1440)
- CLPS 1690 Laboratory in Developmental Psychology (formerly COGS 1610)
- CLPS 1890 Laboratory in Psycholinguistics (formerly COGS 1450)
- APMA 1650 Statistical Inference I
- APMA 1660 Statistical Inference II
- APMA 1670 Statistical Analysis of Time Series
- APMA 1680 Nonparametric Statistics
- CLPS 1900 Senior Seminar in Cognitive Science (formerly COGS 1950)

Electives^2 4

Choose four from the following:

- ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology
- ANTH 1800 Sociolinguistics, Discourse and Dialogue
- APMA 1360 Topics in Chaotic Dynamics
- APMA 1650 Statistical Inference I
- APMA 1660 Statistical Inference II
- APMA 1670 Statistical Analysis of Time Series
- APMA 1680 Nonparametric Statistics
- APMA 1690 Computational Probability and Statistics
- BIOL 0480 Evolutionary Biology
- NEUR 0650 Biology of Hearing
- NEUR 1030 Neural Systems
- NEUR 1040 Developmental Neurobiology
- NEUR 1660 Neural Basis of Cognition
- NEUR 1680 Computational Neuroscience
- CLPS 0100 Learning and Conditioning (formerly PSYC 0900)
- CLPS 0210 Human Thinking and Problem-Solving (formerly COGS 0480)
- CLPS 0220 Making Decisions (formerly COGS 0500)
- CLPS 0400 Brain Damage and the Mind (formerly PSYC 0470)
- CLPS 0510 Perception, Illusion, and the Visual Arts (formerly COGS 0110)
- CLPS 0530 Making Visual Illusions
- CLPS 0600 Child Development (formerly PSYC 0810)
- CLPS 0610 Children’s Thinking: The Nature of Cognitive Development (formerly COGS 0630)
- CLPS 0800 Language and the Mind (formerly COGS 0450)
CLPS 0810 The Biology and Evolution of Language (formerly COGS 0320)
CLPS 1100 Animal Cognition (formerly PSYC 1800)
CLPS 1130 Psychology of Timing (formerly PSYC 1790)
CLPS 1200 Thinking (formerly COGS 1520)
CLPS 1210 Human Memory and Learning (formerly COGS 1560)
CLPS 1211 Human and Machine Learning (formerly COGS 1880)
CLPS 1220 Concepts and Categories (formerly COGS 1870)
CLPS 1240 Reasoning and Problem Solving (formerly COGS 1880)
CLPS 1240 Reasoning and Problem Solving (formerly COGS 1880)
CLPS 1241 Causal Reasoning (formerly COGS 1860C)
CLPS 1400 The Neural Bases of Cognition (formerly PSYC 1880)
CLPS 1470 Mechanisms of Motivated Decision Making
CLPS 1500 Ecological Approach to Perception and Action (formerly COGS 1380)
CLPS 1510 Human Sensory Processing (formerly PSYC 1190)
CLPS 1520 Computational Vision (formerly COGS 1200)
CLPS 1530 3D Shape Perception (formerly COGS 1860B)
CLPS 1540 Human Factors (formerly COGS 1160)
CLPS 1600 History and Theories of Child Development (EDUC 1710)
CLPS 1610 Cognitive Development (formerly COGS 1180)
CLPS 1611 Cognitive Development in Infancy (formerly COGS 1620)
CLPS 1620 Developmental Cognitive Neuroscience (formerly COGS 1190)
CLPS 1621 The Developing Brain (formerly PSYC 1750C)
CLPS 1630 Perceptual Development
CLPS 1650 Child Language Acquisition (formerly COGS 1430)
CLPS 1730 Psychology in Business and Economics
CLPS 1800 Language Processing (formerly COGS 1410)
CLPS 1810 Syntactic Theory and Syntactic Processing (formerly COGS 1420)
CLPS 1820 Language and the Brain (formerly COGS 1480)
CLPS 1821 Neuroimaging and Language (formerly COGS 1840B)
A course from the CLPS 1280 series
A course from the CLPS 1480 series
A course from the CLPS 1580 series
A course from the CLPS 1680 series
A course from the CLPS 1880 series
CSCI 0220 Introduction to Discrete Structures and Probability
CSCI 0510 Models of Computation
CSCI 1230 Introduction to Computer Graphics
CSCI 1410 Introduction to Artificial Intelligence
CSCI 1480 Building Intelligent Robots
EDUC 1260 Emotion, Cognition, Education
EDUC 1270 Adolescent Psychology
ENGN 1220 Neuroengineering
ENGN 1570 Linear System Analysis
ENGN 1580 Communication Systems
ENGN 1610 Image Understanding
PHIL 1520 Consciousness
PHIL 1550 Decision Theory: Foundations and Applications
PHIL 1590 Philosophy of Science
PHIL 1630 Deductive Logic
PHIL 1690 The Problem of Free Will
PHIL 1700 British Empiricists
PHIL 1750 Epistemology
PHIL 1760 Philosophy of Language
PHIL 1770 Philosophy of Mind
PHIL 1780 Philosophy of Biology
PHIL 1880 Advanced Deductive Logic

At least one semester of Independent Study CLPS 1970, OR participation in a directed reading related to Cognitive Sciences (CLPS 1980) OR participation in an ISP or GISP related to Cognitive Science (subject to approval from the concentration advisor). See Section IV for more details.

A coherent program of at least four (4) additional courses in the life sciences (e.g., cognitive science, psychology, or biology), physical sciences, mathematics, and/or applied mathematics that supports the student’s area(s) of study.

Total Credits 18

III. Degrees with Honors

Students interested in honors under either the A.B. or Sc.B. programs should identify a faculty honors sponsor and sign up with the concentration advisor during Semester 6. Although there is no minimum grade point average to enter the program, admission to the program is limited to students who have accumulated a strong academic record and is at the discretion of the department. It is expected that honors candidates will conduct a year-long research project under the direction of a faculty advisor in the CLPS department culminating in a written thesis and oral examination at the end of Semester 8. Students doing honors work may enroll for CLPS 1790 or CLPS 1980 for two terms.

IV. Independent Study

Independent Study is encouraged for the A.B. degree and required for the Sc.B. degree. Students should sign up for CLPS 1970 or CLPS 1980 with a faculty advisor who is a member of the CLPS Department. Arrangements should be made in Semester 6 for students expecting to do independent study during Semesters 7 and/or 8.

Cognitive Science concentrators may use at most two credits of CLPS 1970 or CLPS 1980 towards their degree. Students in the A.B. program can use these two credits to satisfy electives. Students in the Sc.B. program must use one of these credits to satisfy the Independent Study requirement (Requirement B in Section II above), and may use the second to satisfy an elective or one of the four additional courses (Requirement C in Section II).

V. Comments

Both the A.B. and the Sc.B. programs in Cognitive Science reflect recent national trends in the field and the breadth of the course offerings and faculty research interests at Brown. A broadly trained cognitive scientist must possess certain methodological skills, including knowledge of computational methods and research methods (statistics and laboratory techniques), which are incorporated in our skills and methodology requirement. In addition, a cognitive scientist must be conversant in the four major focus areas studied in the field: perception, cognition, languages and cognitive neuroscience. Electives ensure that concentrators have the opportunity to investigate at least one particular area in depth. Finally, the concentration provides an integrative experience to all of its concentrators through the capstone senior seminar. The program is designed to provide the flexibility for each student to design a program that will meet her/his needs and interests.

The Sc.B. program is designed for students who wish to bring a stronger background in general science and a research orientation to their study of cognitive science. Sc.B. candidates must also acquire first-hand experience in doing cognitive science research through an independent study project.

Community Health

Community Health is an interdisciplinary concentration through which students examine a variety of issues, including population health and
The concentration in Comparative Literature enables students to study literature in cross-cultural perspectives. The aim of the program is to encourage students to study a varied and illustrative range of literary topics rather than the total development of a single literary tradition. True to the spirit of Brown's New Curriculum, a concentration in Comparative Literature affords great academic freedom. For example: advanced courses in any literature department at Brown count for concentration credit; although English is commonly one of the languages that students apply to their Comparative Literature studies, basically any language--ancient or modern--supported at Brown may form part of a Comparative Literature concentration program. In essence, concentrators study a generous range of literary works--from Western cultures, both ancient and modern, to Chinese, Japanese, and Arabic--and develop a focused critical understanding of how cultures differ from one another. Comparative Literature differs from other literature concentrations largely through its understanding of patterns of population distributions of health and disease. The concentration also provides students with courses in basic research methods and statistics necessary for problem solving and critical thinking in the emerging emphasis on evidence-based health care and public health.

**Required Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHP 0310</td>
<td>Health Care in the United States</td>
<td>1</td>
</tr>
<tr>
<td>PHP 0320</td>
<td>Introduction to Public Health</td>
<td>1</td>
</tr>
<tr>
<td>PHP 1320</td>
<td>Survey Research in Health Care</td>
<td>1</td>
</tr>
<tr>
<td>PHP 1910</td>
<td>Community Health Senior Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>

**Electives:**

One elective from each of the following areas: 6

- Environmental Health
- U.S. Health Care Organization and Policy
- Global Health
- Social and Behavioral Science for Prevention
- Human Biology/Physiology
- Statistics

Two approved courses in the university that are health-related. 2

**Total Credits** 12

**Honors.** An Honors track is available. Honors track students are also required to enroll in in both semesters of their senior year to write the honors thesis. Note: A 5-year AB/MPH option is available, with the MPH accredited by the Council for Education on Public Health.

Inquiries: Sarah Hemond (Sarah_Hemond@brown.edu).

**Comparative Literature**

A. At least TWO courses in the literature of each of your languages, and the remainder drawn chiefly from among the offerings of Comparative Literature and English, and other national literature departments.
B. ONE COURSE chiefly devoted to EACH of the three major literary genres: poetry, drama and narrative.
C. ONE literature course chiefly devoted to EACH OF THREE of the following five historical periods:
   - Antiquity
   - Middle Ages
   - Renaissance/Early Modern
   - Enlightenment
   - Modern. Please note that the 19th, 20th, and 21st centuries count as one period, the Modern Period.

**Track 2: Concentration in Comparative Literature with three languages**

- Complete prerequisites(s) for taking 1000-level courses in your two languages by Semester V (students working in non-European languages may be allowed more latitude; be sure to consult a concentration advisor about constructing an individualized plan).
- Complete the same requirement for your third language before Semester VII (the above proviso for students working in non-European languages also holds here).
- Comparative Literature 1210, Introduction to the Theory of Literature.
- TEN advanced literature courses (generally 1000-level courses), including Comparative Literature 1210 and:
  A. At least TWO courses in the literature of each of your languages, and the remainder drawn chiefly from among the offerings of Comparative Literature and English, and other national literature departments.
  B. ONE COURSE chiefly devoted to EACH of the three major literary genres: poetry, drama and narrative.
  C. ONE literature course chiefly devoted to EACH OF THREE of the following five historical periods:
     - Antiquity
     - Middle Ages
     - Renaissance/Early Modern
     - Enlightenment
     - Modern. Please note that the 19th, 20th, and 21st centuries count as one period, the Modern Period.

**Track 3: Concentration in Literary Translation**

- Complete prerequisites(s) for taking 1000-level courses in your two languages by Semester V (students working in non-European languages may be allowed more latitude; be sure to consult a concentration advisor about constructing an individualized plan).
- Comparative Literature 1210, Introduction to the Theory of Literature.
- Comparative Literature 1710 (Comparative Literature 2720 strongly urged).
- ONE course or MORE in Linguistics, drawn from among these courses: Cognitive, Linguistic and Psychological Sciences 0410, Anthropology 0800, English 1210, Hispanic Studies 1210 or an acceptable substitute.
- FIVE or SIX advanced literature courses (generally 1000-level courses), including Comparative Literature 1210 and:
  A. At least TWO courses in the literature of each of your languages, and the remainder drawn chiefly from among the offerings of Comparative Literature and English, and other national literature departments.
  B. ONE COURSE chiefly devoted to EACH of the three major literary genres: poetry, drama and narrative.
  C. ONE literature course chiefly devoted to EACH OF THREE of the following five historical periods:
     - Antiquity
     - Middle Ages
     - Renaissance/Early Modern

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Computational Biology

Computational biology involves the analysis and discovery of biological phenomena using computational tools, and the algorithmic design and analysis of such tools. The field is widely defined and therefore requires that students begin their learning with prerequisite and core courses in computer science, applied mathematics, statistics, chemistry, and biology (e.g., biochemistry, molecular biology, genetics, ecology, evolution, anatomy, and neuroscience and visualization). From this broad foundation in the sciences, students are well prepared to pursue one of four possible tracks: computational genomics, biological sciences, molecular modeling, and applied mathematics and statistical genomics.

**Standard program for the Sc.B. degree**

**Prerequisites**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100 Introductory Calculus, Part II (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170 Advanced Placement Calculus</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0200 The Foundation of Living Systems (or equivalent)</td>
<td>1</td>
</tr>
</tbody>
</table>

**General Core Course Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330 Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0470 Genetics (prerequisite BIOL 0200 or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0280 Introductory Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 0500 Cell and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0150 Introduction to Object-Oriented Programming and Computer Science (no prerequisite)</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0160 Introduction to Algorithms and Data Structures (prerequisite CSCI 0150)</td>
<td>1</td>
</tr>
<tr>
<td>or CSCI 0170 Computer Science: An Integrated Introduction (prerequisite CSCI 0150)</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0180 Computer Science: An Integrated Introduction (prerequisite CSCI 0170)</td>
<td>1</td>
</tr>
<tr>
<td>or CSCI 0190 Accelerated Introduction to Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0220 Introduction to Discrete Structures and Probability</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1650 Statistical Inference I</td>
<td>1</td>
</tr>
</tbody>
</table>

**Computational Biology Core Course Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1810 Computational Molecular Biology (prerequisites: (CSCI 0160, or CSCI 0180, or CSCI 0190) and CSCI 0220)</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1080 Inference in Genomics and Molecular Biology</td>
<td>1</td>
</tr>
</tbody>
</table>

**Computational Genomics Track:**

Three of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1230 Introduction to Computer Graphics</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1270 Database Management Systems</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1410 Introduction to Artificial Intelligence</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1550 Probability and Computing: Randomized Algorithms and Probabilistic Analysis</td>
<td>1</td>
</tr>
</tbody>
</table>

**Biological Sciences track**

At least four courses comprising a coherent theme in one of the following areas: Biochemistry, Ecology, Evolution, or Neurobiology.

Select two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1950L Algorithmic Foundations of Computational Biology</td>
<td>1</td>
</tr>
<tr>
<td>PHP 2620 Statistical Methods in Bioinformatics, I</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1660 Statistical Inference II</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1430 The Computational Theory of Molecular Evolution</td>
<td>1</td>
</tr>
</tbody>
</table>

**Molecular Modeling Track:**

At least three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1560 Molecular Modeling</td>
<td>1</td>
</tr>
<tr>
<td>or CSCI 1950L Algorithmic Foundations of Computational Biology</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 1660 Statistical Inference II</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1430 The Computational Theory of Molecular Evolution</td>
<td>1</td>
</tr>
</tbody>
</table>

**Applied Mathematics and Statistical Genomics Track:**

At least three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 1660 Statistical Inference II</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1690 Computational Probability and Statistics</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1410 Introduction to Artificial Intelligence</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0340 Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0360 Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
</tbody>
</table>

Select two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1950L Algorithmic Foundations of Computational Biology</td>
<td>1</td>
</tr>
<tr>
<td>PHP 2620 Statistical Methods in Bioinformatics, I</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1070 Quantitative Models of Biological Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

**Capstone Experience**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1950/1960 Directed Research/Independent Study</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1970 Individual Independent Study</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits** 19

1 This track is designed for students whose interests lie in the development of algorithms and high-quality software (tools and systems) for biological applications.

2 This track is designed for students whose interests lean more towards biological questions.

3 This track is designed for students who wish to gain competence in the field of molecular modeling and drug design.
This track is designed for students whose interest focuses on extracting information from genomic and molecular biology data, and modeling the dynamics of these systems. Substitution of more advanced courses with consent of advisor is permitted.

Students enrolled in the computational biology concentration will complete a research project in their senior year under faculty supervision. The themes of such projects evolve with the field and the technology, but should represent a synthesis of the various specialties of the program. A minimum of one semester of independent study is required, although many students may conduct a full year of independent study.

**Honors:**

To be a candidate for honors, a student must have a course record judged to be excellent by the concentration advisor and must complete a thesis judged to be outstanding by the faculty member supervising the work.

**Computer Science**

Computer science is now a critical tool for pursuing an ever-broadening range of topics, from outer space to the workings of the human mind. In most areas of science and in many liberal arts fields, cutting-edge work depends increasingly on computational approaches. The undergraduate program at Brown is designed to combine breadth in practical and theoretical computer science with depth in specialized areas. These areas range from traditional topics, such as analysis of algorithms, artificial intelligence, databases, distributed systems, graphics, mobile computing, networks, operating systems, programming languages, robotics and security, to novel areas including games and scientific visualization.

**Requirements for the Standard Track of the Sc.B. degree**

**Prerequisites (1 or 2 courses)**

Two semesters of Calculus, for example:

- MATH 0090 Introductory Calculus, Part I
- MATH 0100 Introductory Calculus, Part II
- or MATH 0170 Advanced Placement Calculus

**Concentration Requirements (15 courses)**

**Core-Computer Science:**

Select one of the following introductory course Series: 2

**Series A**

- CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
- & CSCI 0160 Introduction to Algorithms and Data Structures

**Series B**

- CSCI 0170 Computer Science: An Integrated Introduction
- & CSCI 0180 Computer Science: An Integrated Introduction

**Series C**

- CSCI 0190 Accelerated Introduction to Computer Science

and an additional CS course not otherwise used to satisfy a concentration requirement; this course may be CSCI 0180, an intermediate-level course, or an advanced course

Select three of the following intermediate-level courses, one of which must be math-oriented: 3

- CSCI 0220 Introduction to Discrete Structures and Probability (math)
- CSCI 0320 Introduction to Software Engineering (systems)
- CSCI 0330 Introduction to Computer Systems (systems)
- CSCI 0450 Introduction to Probability and Computing (math)
- CSCI 0510 Models of Computation (math)

**Additional Computer Science Courses:** 1

Select one theoretical computer science course: 2

- CSCI 1490 Introduction to Combinatorial Optimization

**Computer Science: An Integrated Introduction**

CSCI 1050 Introduction to Cryptography and Computer Security
CSCI 1550 Probability and Computing: Randomized Algorithms and Probabilistic Analysis
CSCI 1570 Design and Analysis of Algorithms
CSCI 1590 Introduction to Computational Complexity
CSCI 1760 Introduction to Multiprocessor Synchronization
CSCI 1950H Computational Topology
CSCI 1950J Introduction to Computational Geometry
CSCI 1950L Algorithmic Foundations of Computational Biology

Select one artificial intelligence course: 2

- CSCI 1410 Introduction to Artificial Intelligence
- CSCI 1430 Introduction to Computer Vision
- CSCI 1460 Introduction to Computational Linguistics
- CSCI 1480 Building Intelligent Robots
- CSCI 1490 Introduction to Combinatorial Optimization
- CSCI 1580 Information Retrieval and Web Search
- CSCI 1950F Introduction to Machine Learning

Select one computer science systems course: 2

- CSCI 1230 Introduction to Computer Graphics
- CSCI 1260 Introductory Compiler Construction
- CSCI 1270 Database Management Systems
- CSCI 1290 Computational Photography
- CSCI 1320 Creating Modern Web Applications
- CSCI 1380 Distributed Computer Systems
- CSCI 1610 Building High-Performance Servers
- CSCI 1660 Introduction to Computer Systems Security
- CSCI 1670 Operating Systems
- CSCI 1680 Computer Networks
- CSCI 1730 Introduction to Programming Languages
- CSCI 1900 Software System Design

Four additional advanced computer science courses 4

A capstone course 3

Math: Two semesters of Mathematics or Applied Mathematics beyond MATH 0100/0170. One of these courses must be a linear algebra course

- MATH 0520 Linear Algebra

MATH 0540 Honors Linear Algebra

CSCI 0530 Directions: The Matrix in Computer Science

**Total Credits** 15

- 1 Normally these advanced courses must be at the 1000-level or higher, though an intermediate-level course not used to satisfy a core requirement may be used.
- 2 These courses must include two pairs of courses with each pair forming a coherent theme. A list of pre-approved pairs may be found at the approved-pairs web page (http://cs.brown.edu/ugrad/concentrations/approvedpairs.html). You are not restricted to pairs on this list, but any pair not on the list must be approved by the director of undergraduate studies.
- 3 Five of the eight courses must be computer science courses.
- 4 Among the eight courses may be approved 1000-level courses in Mathematics, Applied Mathematics, Biology, Engineering, Economics, Music, Cognitive, Linguistic, and Psychological Sciences, Neuroscience, and other departments that cover material relevant to the student's concentration.
- 5 No course may be used to satisfy more than one area requirement.
- 6 Capstone: a one-semester course, normally taken in the student's last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic in depth, to produce a culminating artifact such as a paper or software project.

**Requirements for the Professional Track of the Sc.B. degree.**

The requirements for the professional track include all those of the standard track, as well as the following:

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student's concentration advisor:

- Which courses were put to use in your summer's work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Requirements for the Standard Track of the A.B. degree

Prerequisites

Two semesters of Calculus, for example:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Advanced Placement Calculus</td>
</tr>
</tbody>
</table>

Concentration Requirements (9 courses)

Select one of the following series:

**Series A**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and</td>
</tr>
<tr>
<td></td>
<td>Computer Science</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td>and Introduction to Algorithms and Data Structures</td>
</tr>
</tbody>
</table>

**Series B**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>&amp; CSCI 0180</td>
<td>and Computer Science: An Integrated Introduction</td>
</tr>
</tbody>
</table>

**Series C**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
</tr>
<tr>
<td></td>
<td>and an additional CSCI course not otherwise used to satisfy a concentration requirement; (this course may be CSCI 0180, an intermediate-level CSCI course, or a 1000 level course)</td>
</tr>
</tbody>
</table>

Three intermediate courses from the following, of which one must be math-oriented and one must be systems-oriented:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability (math)</td>
</tr>
<tr>
<td>CSCI 0320</td>
<td>Introduction to Software Engineering (systems)</td>
</tr>
<tr>
<td>CSCI 0330</td>
<td>Introduction to Computer Systems (systems)</td>
</tr>
<tr>
<td>CSCI 0450</td>
<td>Introduction to Probability and Computing (math)</td>
</tr>
<tr>
<td>CSCI 0510</td>
<td>Models of Computation (math)</td>
</tr>
<tr>
<td>CSCI 0530</td>
<td>Directions: The Matrix in Computer Science (math)</td>
</tr>
</tbody>
</table>

Four additional courses in computer science or related areas are required. 

Total Credits

9

1 Three must be advanced courses (at the 1000-level or higher), the fourth may be either an intermediate-level course not used to satisfy a core requirement or an advanced course. These three courses must include a pair of courses forming a coherent theme. A list of pre-approved pairs may be found at the approved-pairs web page (http://cs.brown.edu/ugrad/concentrations/approvedpairs.html). You are not restricted to pairs on this list, but any pair not on the list must be approved by the director of undergraduate studies.

Requirements for the Professional Track of the A.B. degree

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student's concentration advisor:

- Which courses were put to use in your summer's work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Computer Science-Economics

The joint Computer Science-Economics concentration exposes students to the theoretical and practical connections between computer science and economics. It prepares students for professional careers that incorporate aspects of economics and computer technology and for academic careers conducting research in areas that emphasize the overlap between the two fields. Concentrators may choose to pursue either the A.B. or the Sc.B. degree. While the A.B. degree allows students to explore the two disciplines by taking advanced courses in both departments, its smaller number of required courses is compatible with a liberal education. The Sc.B. degree achieves greater depth in both computer science and economics by requiring more courses, and it offers students the opportunity to creatively integrate both disciplines through a design requirement. In addition to courses in economics, computer science, and applied mathematics, all concentrators must fulfill the Computer Science department's writing requirement by passing a course that involves significant expository writing.

Requirements for the Standard Track of the Sc.B. degree.

Interested students may contact concentration advisors in either the Department of Computer Science or in the Department of Economics.

**Prerequisites (3 courses):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>or CSCI 0530</td>
<td>Directions: The Matrix in Computer Science</td>
</tr>
</tbody>
</table>
Required Courses (17 courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0450</td>
<td>Introduction to Probability and Computing</td>
</tr>
<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
</tbody>
</table>

Select one of the following Series:

**Series A**
- CSCI 0150 & CSCI 0160: Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures

**Series B**
- CSCI 0170 & CSCI 0180: Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction

**Series C**
- CSCI 0190: Accelerated Introduction to Computer Science

and an additional CS course not otherwise used to satisfy a concentration requirement; (this course may be CSCI 0180, an intermediate-level course, or a 1000-level course)

Two of the following intermediate courses, one of which must be math-oriented and one systems-oriented: one must be math-oriented and one systems-oriented:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability (math)</td>
</tr>
<tr>
<td>CSCI 0310 or CSCI 0330</td>
<td>Introduction to Computer Systems</td>
</tr>
<tr>
<td>CSCI 0320</td>
<td>Introduction to Software Engineering (systems)</td>
</tr>
<tr>
<td>CSCI 0510</td>
<td>Models of Computation (math)</td>
</tr>
</tbody>
</table>

A pair of CS courses with a coherent theme. 1

An additional CS course that is either at the 1000-level or is an intermediate course not already used to satisfy concentration requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Econometrics I</td>
</tr>
</tbody>
</table>

Three courses from the "mathematical economics" group, as follows:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1170</td>
<td>Welfare Economics</td>
</tr>
<tr>
<td>ECON 1465</td>
<td>Market Design: Theory and Applications</td>
</tr>
<tr>
<td>ECON 1470</td>
<td>Bargaining Theory and Applications</td>
</tr>
<tr>
<td>ECON 1640</td>
<td>Econometrics II</td>
</tr>
<tr>
<td>ECON 1650</td>
<td>Financial Econometrics</td>
</tr>
<tr>
<td>ECON 1750</td>
<td>Investments II</td>
</tr>
<tr>
<td>ECON 1759</td>
<td>Data, Statistics, Finance</td>
</tr>
<tr>
<td>ECON 1810</td>
<td>Economics and Psychology</td>
</tr>
<tr>
<td>ECON 1820</td>
<td>Behavioral Economics</td>
</tr>
<tr>
<td>ECON 1850</td>
<td>Theory of Economic Growth</td>
</tr>
<tr>
<td>ECON 1860</td>
<td>The Theory of General Equilibrium</td>
</tr>
<tr>
<td>ECON 1870</td>
<td>Game Theory and Applications to Economics</td>
</tr>
</tbody>
</table>

and any graduate Economics course

Two additional 1000-level Economics courses 2

Capstone Course in either Computer Science or Economics 3

Total Credits: 17

1 A list of pre-approved pairs may be found at the approved-pairs web page ([http://www.cs.brown.edu/ugrad/concentrations/approvedpairs.html](http://www.cs.brown.edu/ugrad/concentrations/approvedpairs.html)). You are not restricted to pairs on this list, but any pair not on the list must be approved by the CS director of undergraduate studies.

2 Or ECON 1110, with permission.

3 A one-semester course, normally taken in the student’s last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic (preferably at the intersection of computer science and economics) in depth, to produce a culminating artifact such as a paper or software project.

Requirements for the Professional Track of the Sc.B. degree:

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student's concentration advisor:

- Which courses were put to use in your summer’s work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Requirements for the Standard Track of the A.B. degree:

Interested students may contact concentration advisors in either the Department of Computer Science or in the Department of Economics.

Prerequisites (3 courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>or CSCI 0530</td>
<td>Directions: The Matrix in Computer Science</td>
</tr>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
</tr>
</tbody>
</table>

Required Courses (13 courses):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0450</td>
<td>Introduction to Probability and Computing</td>
</tr>
<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
</tbody>
</table>

Select one of the following series:

**Series A**
- CSCI 0150 & CSCI 0160: Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures

**Series B**
- CSCI 0170 & CSCI 0180: Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction

**Series C**
- CSCI 0190: Accelerated Introduction to Computer Science

and an additional CS course not otherwise used to satisfy a concentration requirement; this course may be CSCI 0180, an intermediate-level course, or a 1000-level course

Two of the following intermediate courses, one of which must be math-oriented and one systems-oriented:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability (math)</td>
</tr>
</tbody>
</table>
CSCI 0310  Introduction to Computer Systems (systems)  
CSCI 0330  Introduction to Computer Systems  
CSCI 0320  Introduction to Software Engineering (systems)  
CSCI 0510  Models of Computation (math)

**Two additional CS courses; at least one must be at the 1000-level. The other must either be at the 1000-level or be an intermediate course not already used to satisfy concentration requirements.**

**ECON 1130** Intermediate Microeconomics (Mathematical)  
**ECON 1210** Intermediate Macroeconomics

**ECON 1630** Econometrics I  
**ECON 1640** Econometrics II  
**ECON 1650** Financial Econometrics  
**ECON 1750** Investments II  
**ECON 1759** Data, Statistics, Finance  
**ECON 1810** Economics and Psychology  
**ECON 1820** Behavioral Economics  
**ECON 1850** Theory of Economic Growth  
**ECON 1860** The Theory of General Equilibrium  
**ECON 1870** Game Theory and Applications to Economics  
**or any graduate Economics course**

Total Credits: 13

1 Or ECON 1110, with permission.

**Requirements for the Professional Track of the A.B. degree.**

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

- Which courses were put to use in your summer’s work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

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**Development Studies**

Development Studies examines the interaction of social, economic and political development in contemporary societies and is therefore, necessarily an interdisciplinary enterprise. Development Studies concentrators develop the skills and knowledge best suited to their chosen geographical area of interest, emphasizing what is historically and culturally distinctive about the region and how its development reflects general processes of socio-economic change. While the concentration produces graduates with expertise in the study of development, most concentrators combine their course work with first-hand experience in the developing world. Course selection should balance analytic training with local and historical knowledge. Therefore, courses must be taken in at least three social science disciplines to achieve an interdisciplinary approach to these processes of change.

Since study abroad is a potentially important part of the concentration, the possibility of spending part or all of the junior year in a developing world country should be discussed with concentration advisors and the Office of International Programs at the earliest possible time. Acquisition of relevant foreign language skills is also considered an important part of training in the study of development, although language courses cannot count for concentration.

All Development Studies concentrators are required to demonstrate competency in a foreign language to the 0600 level and to incorporate their language into the senior project.

Disciplinary courses deal with the theory and study of development within a given discipline. Students will take at least two of these by the end of the junior year, focusing on different developing regions. Substitutions must be approved by the Deputy Director.

The advanced seminar course related to development will focus on the developing world; if that is not possible, DS concentrators are encouraged to write course papers that make the link with development.

At least **TWO** of the elective courses on developing regions must focus specifically on regions in the developing world. A list of pre-approved electives will be provided.

All concentrators must produce a senior project. Students should enroll in (with their primary advisor as their instructor) while working on their thesis. Group projects undertaken by up to three students can constitute a senior project but are not eligible for honors. The non-thesis senior research project can consist of a video or audio documentary, provided that documentary is based on an analytical framework and a background chapter. If the senior thesis contains a documentary, by the end of the junior year students are required to take two of the following courses in Modern Culture and Media:

- MCM 0100  Introduction to Modern Culture and Media  
- MCM 0710  Introduction to Filmmaking: Time and Form  
- MCM 1700D  Reframing Documentary Production: Concepts and Questions  
- MCM 0780  Soundtracks: Sound Production and Visual Media

Other forms of non-thesis projects are subject to the approval of the Director. Approval should be obtained by the end of the first semester of the junior year. If a senior thesis requires the use of quantitative methods, students should take at least one course in statistics for social sciences in any of the following departments: economics, political science, or sociology, by the end of the junior year.

**Early Cultures**

The Program in Early Cultures is an interdisciplinary concentration that integrates the cultures, religions, and histories of ancient civilizations. Geographically, the ancient world includes early China and India, West Asia (Mesopotamia, Iran, Anatolia, and Israel), Egypt, the Mediterranean (especially Greece and Italy), the early Islamic and Byzantine worlds, and the Pre-Columbian Mesoamerican civilizations. Students in Early Cultures gain in-depth knowledge of the history, religions, languages, and literatures of two or more ancient civilizations. In consultation with a concentration advisor, students design their own areas of study. Examples of possible topics include: cultural contacts between Greece and Egypt-West Asia; animal sacrifice in Greece and Israel; selected legal studies: Israel, Hatti, and Mesopotamia; gender roles in Rome and Egypt; Wisdom literature in Egypt, Israel, and Mesopotamia; and the historiography of the exact sciences in India and Greece.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Faculty from a variety of academic units (Anthropology, Classics, Comparative Literature, Egyptology, History, History of Art and Architecture, the Joukowsky Institute for Archaeology and the Ancient World, Judaic Studies, Philosophy, Religious Studies) offer courses relevant to Early Cultures.

### Concentration patterns:
1. Ancient History (standard and honors)
2. Ancient Religions (standard and honors)
3. Languages and Literatures of Greece, Rome, North Africa, pre-Islamic West and South Asia (honors only)

### General Requirements

Each nonhonors concentrator will choose to focus on either ancient history or ancient religions and will complete the Concentrators Seminar (ERLY 1000) in both the junior and the senior years, and eight other courses, four in each of two civilizations, or eight in a variety of civilizations.

### Honors Requirements:

1. Ancient History or Ancient Religions (total of up to 12 courses)
   A. The Concentrators Seminar (ERLY 1000) in both the junior and senior years
   B. Two courses on the history or religions of two civilizations (four courses)
   C. Two courses in one ancient language
   D. Two related courses
   E. The honors thesis (one or two courses)
2. A. Languages and Literatures of Greece, Rome, North Africa, pre-Islamic West and South Asia (total of up to 12 courses)
   i. The Concentrators’ Seminar (two courses)
   ii. Two 1000-level courses requiring knowledge of Greek or Latin; and two courses requiring knowledge of Egyptian, Hebrew, Aramaic, Akkadian, Sanskrit, or Phoenician (Four courses: two of each of two languages)
   iii. Two courses in the literature or culture associated with each of the two languages (For one of these languages, the two courses must be at the advanced level)
   iv. The honors thesis (one or two courses)
   B. Languages and Literatures of North Africa and pre-Islamic West, South, or East Asia (total of up to 12 courses)
   i. The Concentrator’s Seminar (two courses)
   ii. Two courses requiring knowledge of two different North African, West or South Asian languages: Egyptian, Hebrew, Aramaic, Akkadian, Phoenician, Sanskrit or Chinese. For one of these languages, the two courses must be at the advanced level. (Four courses: two of each of two languages.)
   iii. Two courses in the literature or culture associated with each of the two languages (four courses: two each for two languages).
   iv. The honors thesis (one or two courses)

### East Asian Studies

East Asian Studies is a multidisciplinary concentration designed for students wishing to attain reasonable fluency in Chinese, Japanese, or Korean with specialized exposure to selected East Asian subjects. It serves students with two types of interests: those who aim to pursue active professional careers related to the East Asian region; and those who want to pursue graduate study in the humanities or social sciences with particular emphasis on China, Japan or Korea. Students in East Asian Studies will gain language proficiency and familiarity with East Asia through advanced courses in a variety of disciplines. Concentrators are strongly encouraged, but not required, to study in East Asia for one or two semesters. The concentration requires students to demonstrate a basic proficiency in Chinese, Japanese, or Korean.

Concentrators' academic experiences should culminate in their senior project. Concentration advisors will guide and supervise in the planning of individual concentrations to ensure the development of coherent programs of study.

### The Language Requirement

The concentration requires students to demonstrate a basic proficiency in Chinese, Japanese, or Korean. For the purposes of the concentration, proficiency is determined to be consistent with successful completion of the Department’s third-year course sequence in either Chinese or Japanese (0500-0600), or its equivalent. Native speakers of these languages may, for example, demonstrate competency such that language courses may be unnecessary. Department language instructors may also determine that course work completed at one of the language-intensive study abroad programs attended by our undergraduates is comparable to courses offered at Brown. Because the Department normally only offers the first two years of Korean, students wishing advanced instruction in that language would normally do so as part of a study abroad program. Note that we do not equate completion of third-year Chinese, Japanese, or Korean with fluency in these languages. Rather, we believe that students who have demonstrated the skills associated with third-year Chinese, Japanese, or Korean have acquired a foundational understanding of the languages’ grammar, vocabularies, and conversational patterns, such that they are able to make themselves understood in everyday situations, and to understand both spoken and written communication.

For the purposes of the concentration, language courses through the third-year are treated as an accompanying requirement.

### Required Introductory Surveys

All concentrators are required to complete successfully both HIST 0410 "Introduction to East Asian Civilization: China" and HIST 0420 "Introduction to East Asian Civilization: Japan". Both courses are offered annually by the History Department; HIST 0410 in the fall, and HIST 0420 in the spring. These courses offer chronologically broad surveys of Chinese and Japanese history. They are required for concentrators in order to provide them with common frameworks for thinking about historical change in East Asia, and to raise an awareness of issues and developments outside of their particular geographical or temporal areas of focus. Department faculty are also aware that many undergraduates come to Brown with backgrounds in “Western Civilization” and North American history, but little if any exposure to the histories and cultures of East Asia, and believe that these courses play an important role in addressing those deficits. We encourage students to take these introductory courses early in their careers at Brown.

### Content/Topics Courses

The revised concentration requires seven courses in addition to HIST 0410 and HIST 0420. At least one elective must fall outside the primary focus of the concentrator’s course of study, which may be defined in linguistic, chronological, thematic or cultural terms. One of the seven electives may, with the consent of the concentration advisor, be a course topically unrelated to East Asia, but beneficial to the student’s disciplinary and/or theoretical interests.

As is common for interdisciplinary concentrations, a wide range of courses, including many taught by faculty in other departments, may be counted toward the concentration. These include courses offered by East Asian Studies faculty, faculty with courtesy appointments in the Department, and courses with a significant focus on East Asia offered in such disciplines as Archeology, Anthropology, Economics, International Relations, and others.

### Advanced seminars

At least one of the seven elective courses must be an advanced research seminar, typically taken in the junior or senior year. The research seminar will normally provide students with the opportunity to develop a project or paper focusing on one or more of their areas of inquiry within the concentration. Students are strongly encouraged to find ways to incorporate the use of Chinese, Japanese or Korean language materials in their research and learning in these courses. Courses falling into this category include but are not limited to the East Asian Studies 1950
For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
families, peer groups, and neighborhoods, particularly in urban settings. Additionally, the department offers teacher certification programs in elementary and secondary education.

Education Studies concentrators design a program that includes ten courses, of which at least eight are taken in the Education Department at Brown University. Within Education Studies, concentrators choose one of the two tracks, each designed to enable students to develop critical and creative skills for addressing issues surrounding children, schools, and education.

**Course Requirements:**

<table>
<thead>
<tr>
<th>Course Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1100 Introduction to Qualitative Research Methods</td>
<td>1</td>
</tr>
<tr>
<td>or EDUC 1110 Introductory Statistics for Education Research and Policy Analysis</td>
<td></td>
</tr>
<tr>
<td>At least five Education courses in the chosen area of emphasis.</td>
<td>5</td>
</tr>
<tr>
<td>At least two Education courses outside the chosen area of emphasis.</td>
<td>2</td>
</tr>
<tr>
<td>Two additional, related courses.</td>
<td>2</td>
</tr>
<tr>
<td>Total Credits</td>
<td>10</td>
</tr>
</tbody>
</table>

**Honors**

Concentrators seeking to graduate with honors must meet all requirements for the concentration, including a grade-point average established by the Department, and state their plans in writing by the end of their sixth semester. Finally, they must successfully complete EDUC 1990 - EDUC 1991 (Research and Writing in Education) in which they write a 60–70 page thesis under the guidance of a thesis advisor.

**Undergraduate Teacher Education Program**

Note: The Undergraduate Teacher Education Program is not a concentration. It consists of a series of courses which will prepare students for secondary teacher certification.

The Department of Education, in cooperation with other departments, offers a program of study in teacher education leading to certification in secondary school teaching: the Undergraduate Teacher Education Program (UTE). This program is offered in English, History/Social Studies, Science (Biology, Chemistry, or Engineering/Physics), and leads to state certification for public school teaching in these fields.

The Undergraduate Teacher Education Program consists of three components: courses in educational theory, courses in the teaching field, and student teaching. These are designed to complement and enhance the liberal education derived from concentration courses and electives.

Students who are interested in completing the Undergraduate Teacher Education Program must confer with the Education Department as early as possible in order to plan a coherent program. The program includes a methods course, offered during the summer in conjunction with teaching at Brown Summer High School, between Semesters VI and VII.

**Courses in the teaching field**

Because the program emphasizes the importance of knowledge in the teaching field, students are required to complete an academic concentration in the subject which they are preparing to teach or a closely related field. This does not mean that a student must elect a standard concentration in the field. However, such a student must, as part of or in addition to his/her chosen concentration, elect a substantive number of courses in his/her teaching field. Students considering the program should consult with advisors both in the academic department and in the Education Department to design an appropriate program of study that meets Rhode Island state certification requirements and those of many other states.

All of the required courses in education must be taken at Brown. None can be transferred for credit from other institutions. Requirements of the program include:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 0900</td>
<td>Fieldwork and Seminar in Secondary Education</td>
</tr>
<tr>
<td>EDUC 1450</td>
<td>The Psychology of Teaching and Learning</td>
</tr>
<tr>
<td>EDUC 1070A or EDUC 1070B</td>
<td>Student Teaching: English</td>
</tr>
<tr>
<td>or EDUC 1070B</td>
<td>Student Teaching: History and Social Studies</td>
</tr>
<tr>
<td>or EDUC 1070C</td>
<td>Student Teaching: Science</td>
</tr>
</tbody>
</table>

**Egyptology and Ancient Western Asian Studies**

The concentration in Egyptology and Ancient Western Asian Studies offers students a choice of two tracks: Ancient Western Asian Studies or Egyptology. The department promotes collaborations with other academic units at Brown devoted to the study of antiquity including Archaeology, Classics, Judaic Studies, and Religious Studies. Egyptology and Ancient Western Asian Studies also collaborates with Brown’s Joukowsky Institute for Archaeology and the Ancient World.

**Ancient Western Asian Studies Track**

Also known as the Near East or Middle East, Western Asia includes present-day Iraq, Syria, Turkey, and other neighboring states, a broad geographic area that was connected in antiquity with the wider world—the Mediterranean, North Africa, the Arabian Peninsula, Central Asia, and the Asian subcontinent. Students will be exposed to the critical study of the ancient cultures of this region (ca. 3400 B.C.E.–100 C.E.) using the tools of archaeology, epigraphy, and historical inquiry. A variety of interdisciplinary, comparative, and theoretical approaches will be introduced to give students the tools and methods to explore this region’s ancient languages and literatures, political and socio-economic modes of organization, art and architecture, religious traditions and other systems of knowledge, such as early science.

The Ancient Western Asian Studies (AWAS) track requires a total of at least ten (10) courses that are determined in the following way:

**Introductory courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWAS 0800</td>
<td>Introduction to the Ancient Near East</td>
</tr>
<tr>
<td>or ARCH 0370</td>
<td>Archaeology of Mesopotamia</td>
</tr>
<tr>
<td>or ARCH 1600</td>
<td>Archaeologies of the Near East</td>
</tr>
<tr>
<td>AWAS 0200</td>
<td>Introduction to Akkadian</td>
</tr>
<tr>
<td>AWAS 0210</td>
<td>Intermediate Akkadian</td>
</tr>
</tbody>
</table>

**Foundational Courses (at least one course from each of the following three areas):**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWAS 1100</td>
<td>Imagining the Gods: Myths and Myth-making in Ancient Mesopotamia (WRIT)</td>
</tr>
<tr>
<td>AWAS 2310B</td>
<td>Assyriology I (WRIT)</td>
</tr>
<tr>
<td>AWAS 2310C</td>
<td>Assyriology II (WRIT)</td>
</tr>
<tr>
<td>AWAS 1500</td>
<td>Ancient Babylonian Magic and Medicine</td>
</tr>
<tr>
<td>AWAS 2600</td>
<td>Topics in Cuneiform Studies</td>
</tr>
</tbody>
</table>

**Ancient Scholarship in Western Asia:**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWAS 1600</td>
<td>Astronomy Before the Telescope</td>
</tr>
<tr>
<td>AWAS 1650</td>
<td>Time in the Ancient World (WRIT)</td>
</tr>
<tr>
<td>AWAS 1700</td>
<td>Astronomy, Divination and Politics in the Ancient World (WRIT)</td>
</tr>
<tr>
<td>AWAS 1750</td>
<td>Divination in Ancient Mesopotamia (WRIT)</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Undergraduate Concentrations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWAS 2310A</td>
<td>Ancient Scientific Texts: Akkadian</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 1200F</td>
<td>City and the Festival: Cult Practices and Architectural Production in the Ancient Near East (WRIT)</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 1200I</td>
<td>Material Worlds: Art and Agency in the Near East and Africa</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 1810</td>
<td>Under the Tower of Babel: Archaeology, Politics, and Identity in the Modern Middle East (WRIT)</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 2010C</td>
<td>Architecture, Body and Performance in the Ancient Near Eastern World (WRIT)</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 2300</td>
<td>The Rise of the State in the Near East</td>
<td>2</td>
</tr>
</tbody>
</table>

**Depth Requirement:** At least two additional courses offered in AWAS or ARCH dealing with ancient Western Asia. These courses must be approved by the undergraduate concentration advisor.

**Breadth Requirement:** At least one course offered in EGYT or ARCH on the archaeology, art, history, culture, or language of ancient Egypt. Elective: At least one elective course on the ancient world broadly defined. Usually this course will be offered in Ancient Western Asian Studies, Anthropology, Archaeology, Classics, Comparative Literature, East Asian Studies, Egyptology, History, History of Art and Architecture, Judaic Studies, Philosophy, or Religious Studies. The elective course must be approved by the undergraduate concentration advisor.

### Total Credits 10

1. This list contains possible offerings but should not be considered exhaustive.

### Egyptology Track

The Egyptology track requires a total of at least ten courses. Six of these must be taken by all concentrators, but the remaining four can be chosen from a fairly broad range of courses, to suit individual interests.

**Introductory Courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGYT 1310 &amp; EGYT 1320</td>
<td>Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian I) and Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian II)</td>
<td>1</td>
</tr>
<tr>
<td>EGYT 1430 &amp; EGYT 1440</td>
<td>History of Egypt I and History of Egypt II</td>
<td>1</td>
</tr>
<tr>
<td>ARCH 0150</td>
<td>Introduction to Egyptian Archaeology and Art</td>
<td>1</td>
</tr>
<tr>
<td>EGYT 1420</td>
<td>Ancient Egyptian Religion and Magic or ARCH 1625</td>
<td>1</td>
</tr>
<tr>
<td>EGYT 1330</td>
<td>Selections from Middle Egyptian Hieroglyphic Texts</td>
<td>1</td>
</tr>
<tr>
<td>EGYT 1410</td>
<td>Ancient Egyptian Literature</td>
<td>2</td>
</tr>
</tbody>
</table>

**Depth Course:** Any course covering the ancient Near East or Mediterranean world outside Egypt, such as:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWAS 0860</td>
<td>Introduction to the Ancient Near East</td>
<td>1</td>
</tr>
<tr>
<td>or ARCH 1600</td>
<td>Archaeologies of the Near East</td>
<td>1</td>
</tr>
</tbody>
</table>

**Elective Course:** Any course germane to ancient Egypt or the ancient Near East or Mediterranean world. Alternative and elective courses must be approved by the undergraduate concentration advisor. Such courses will normally be offered by Egyptology and Ancient Western Asian Studies, the Joukowsky Institute for Archaeology and the World, Religious Studies, Classics, Judaic Studies, Anthropology, History of Art and Architecture, History, or Philosophy. Concentrators are welcome to take most courses offered by Egyptology and Ancient Western Asian Studies (EGYT and AWAS), Archaeology (ARCH), or related departments, though some may require the instructor's approval. Concentrators should consult with the concentration advisor to discuss the courses most suitable to their interests.

### Capstone

All students pursuing either the Ancient Western Asian Studies or Egyptology tracks are required to complete a capstone project. The project can take many forms, but the common feature shared among all possible projects will be a public presentation. Typically in the final semester before graduating, the concentrator will give this capstone presentation before faculty, fellow students, and other interested audiences. If the concentrator is writing an undergraduate honors thesis, the procedure for which is detailed below, this work should provide the content for the capstone presentation. Students not writing an honors thesis will base their presentation on a research project more in depth than a class project, though the topic may stem from a course project or paper. The format of the presentation may vary: suggestions range from an illustrated lecture to a video or an installation presented with discussion. Both the content and the format of the capstone project should be discussed with and agreed upon by the concentration advisor no later than the end of the first semester of the senior year.

### Honors

It is possible for students to receive the A.B. in Ancient Western Asian Studies or Egyptology with departmental honors. To do so students will need to write a senior honors thesis according to the criteria and procedure outlined below.

**Eligibility and Approval**

At the beginning of the second semester of the junior year, the student should begin thinking about potential topics and consult with the department’s concentration advisor. Students seeking to graduate with honors will have received strong grades in concentration courses. In practice this means a preponderance of grades of ‘A’ in concentration courses. Students who are considering graduating with honors are strongly encouraged to take concentration courses for a letter grade. If the concentration advisor agrees that a senior honors thesis may be undertaken, the student must obtain (1) the agreement of two faculty members (at least one from the department) to serve as readers as well as (2) the approval of the department chair. If all parties agree that an honors thesis may be undertaken, the student must submit a working bibliography to the potential readers by the end of the semester (due 5/15).

**Procedure**

1. In the first semester of the senior year, the student will register for Individual Study Project. Note that this course is in addition to the ten courses required for the concentration. The student will submit a working title and outline, as well as a one-page abstract of the intended project by the end of the first month of the semester (due 9/30). The student will then work with the readers to prepare a detailed outline of the thesis with accompanying bibliography. Both readers must approve the thesis plan, and the student must then submit a partial draft (at least one major section) before the end of the Fall semester (due 12/15).

2. In the second semester of the senior year, the student will register for Individual Study Project. Note that this course is in addition to the ten courses required for the concentration. This stage will normally

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The concentration in Engineering is designed to equip students with a solid foundation for productive careers in engineering, to advance the knowledge base for future technologies, and to merge teaching, scholarship, and practice in the pursuit of solutions to human needs. The concentration offers one standard A.B. program and six ABET-accredited Sc.B. degree programs: chemical and biochemical, civil, computer, electrical, mechanical, and engineering.

### Standard program for the A.B. degree

Candidates for the Bachelor of Arts (A.B.) degree with a concentration in Engineering must complete at least eight approved Engineering courses. The eight courses must include, and at least two 1000-level Engineering courses. Of these 1000-level courses, one must be a design or independent study course and the other an in-classroom experience. The set of Engineering courses must be chosen with careful attention to the pre-requisites of the 1000-level courses. Please note that not all engineering courses can be used to satisfy the engineering course requirement for the A.B. degree. For example, the following courses cannot be used to satisfy the engineering course requirement for the A.B. degree: ENGN 0020, ENGN 0090, ENGN 0900, ENGN 0930A, ENGN 0930C, ENGN 1010. For this reason, it is essential that the set of courses must be developed through consultation with the concentration advisor.

The A.B. program also requires preparation in Mathematics equivalent to MATH 0200 and APMA 0330, as well as at least one college-level science course from the general areas of chemistry, life sciences, physics, or geological sciences. Remedial courses, such as CHEM 0100, cannot be used to satisfy this requirement. A programming course is also recommended, but not required. The entire program is subject to approval by the Engineering AB concentration advisor and the Engineering Concentration Chair.

### Standard programs for the Sc.B. degree

Standard programs for the Sc.B. degree include seven ABET-accredited degree programs: biomedical engineering, a stand-alone interdisciplinary concentration; and six different tracks in Engineering: chemical and biochemical, civil, computer, electrical, materials, and mechanical engineering. In addition, one interdisciplinary degree program, engineering and physics, is offered. These programs are described in detail in the booklet, Engineering Undergraduate Programs (available online at [http://www.engin.brown.edu/undergrad/guide/index.html](http://www.engin.brown.edu/undergrad/guide/index.html)).

Students without one year of secondary school level preparation in calculus should take MATH 0090, MATH 0100 in their first year. These students need to be familiar with multivariable calculus for ENGN 0510, which is often taken during the first semester of the sophomore year. Such students are urged to acquire the necessary math background through self-study, by taking a summer course, or by deferring ENGN 0510 until additional mathematics has been taken. In addition, all students must successfully complete a minimum of four courses in the humanities and/or social sciences. See the entry under "Biomedical Engineering" and computer engineering for course requirements for these degree programs.

The program of each student must be approved by the Engineering Concentration Committee, which issues more detailed guidelines and program suggestions.

### Chemical and Biochemical Track:

1. Core Courses:
   - ENGN 0030 Introduction to Engineering 1
   - ENGN 0040 Dynamics and Vibrations 1
   - ENGN 0410 Materials Science 1
   - ENGN 0510 Electricity and Magnetism 1
   - ENGN 0520 Electrical Circuits and Signals 1
   - ENGN 0720 Thermodynamics 1
   - ENGN 0810 Fluid Mechanics 1
   - CHEM 0330 Equilibrium, Rate, and Structure 1
   - MATH 0190 Advanced Placement Calculus (Physics/Engineering) 1
   - MATH 0200 Intermediate Calculus (Physics/Engineering) 1
   - APMA 0330 Methods of Applied Mathematics I, II 1
   - APMA 0340 Methods of Applied Mathematics I, II 1
   - BIOL 0200 The Foundation of Living Systems 1
2. An Upper-level Sequence:
   - ENGN 1110 Transport and Biotransport Processes 1
   - ENGN 1120 Chemical and Biochemical Reactor Design 1
   - ENGN 1130 Phase and Chemical Equilibria 1
   - ENGN 1140 Chemical Process Design 1
   - ENGN 1710 Heat and Mass Transfer 1
   - CHEM 0350 Organic Chemistry 1
   - One additional elective Chemistry course with a significant laboratory component
3. Seven additional courses (six credits), depending on the area of interest:
   - ENGN 1300 Structural Analysis 1
   - ENGN 1340 Water Supply and Wastewater Treatment 1

Total Credits 21

---

1. For example: CHEM 0360, CHEM 0400, CHEM 0500, CHEM 1170, etc.

2. For suggestions of acceptable courses, see the Concentration Advisor.

### Civil Engineering Track:

1. Core courses:
   - ENGN 0030 Introduction to Engineering 1
   - ENGN 0040 Dynamics and Vibrations 1
   - ENGN 0310 Mechanics of Solids and Structures 1
   - ENGN 0410 Materials Science 1
   - ENGN 0510 Electricity and Magnetism 1
   - ENGN 0520 Electrical Circuits and Signals 1
   - ENGN 0720 Thermodynamics 1
   - ENGN 0810 Fluid Mechanics 1
   - CHEM 0330 Equilibrium, Rate, and Structure 1
   - MATH 0190 Advanced Placement Calculus (Physics/Engineering) 1
   - MATH 0200 Intermediate Calculus (Physics/Engineering) 1
   - APMA 0330 Methods of Applied Mathematics I, II 1
   - APMA 0340 Methods of Applied Mathematics I, II 1
   - CSCI 0040 Introduction to Scientific Computing and Problem Solving 1
2. An advanced sciences course
3. Seven additional courses (six credits), depending on the area of interest:
   - ENGN 1300 Structural Analysis 1
   - ENGN 1340 Water Supply and Wastewater Treatment 1

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search ([http://selfservice.brown.edu/menu](http://selfservice.brown.edu/menu)).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGN 1360</td>
<td>Soil Mechanics and Principles of Foundation</td>
<td>1</td>
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<tr>
<td>ENGN 1380</td>
<td>Design of Civil Engineering Structures</td>
<td>1</td>
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<tr>
<td>ENGN 1930C</td>
<td>Civil Engineering Project</td>
<td>1</td>
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<tr>
<td>ENGN 1930D</td>
<td>Civil Engineering Project</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1740</td>
<td>Computer Aided Visualization and Design</td>
<td>1</td>
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<td>ENGN 1750</td>
<td>Advanced Mechanics of Solids</td>
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<td>ENGN 1860</td>
<td>Advanced Fluid Mechanics</td>
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<td>ENGN 1130</td>
<td>Phase and Chemical Equilibria</td>
<td>1</td>
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<tr>
<td>ENGN 1300</td>
<td>Structural Analysis</td>
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<tr>
<td>ENGN 1340</td>
<td>Water Supply and Wastewater Treatment</td>
<td>1</td>
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<tr>
<td>ENGN 1360</td>
<td>Soil Mechanics and Principles of Foundation</td>
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<td>ENGN 1930C</td>
<td>Civil Engineering Project</td>
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<tr>
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<td>Civil Engineering Project</td>
<td>1</td>
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Total Credits: 21

1. Core Courses:

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<tr>
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<td>Introduction to Engineering</td>
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<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
<td>1</td>
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Select one of the following Series:

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<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>2</td>
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<tr>
<td>&amp; MATH 0200</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td>2</td>
</tr>
<tr>
<td>&amp; MATH 0180</td>
<td>Advanced Placement Calculus</td>
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<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
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<tr>
<td>or APMA 0350</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 0200</td>
<td>The Foundation of Living Systems</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0720</td>
<td>Thermodynamics</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0410</td>
<td>Materials Science</td>
<td>1</td>
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Select one of the following Series:

<table>
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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming</td>
<td>2</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td>Computer Science: An Integrated Introduction</td>
<td>2</td>
</tr>
<tr>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
<td>2</td>
</tr>
<tr>
<td>&amp; CSCI 0180</td>
<td>Computer Science: An Integrated Introduction</td>
<td>2</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem</td>
<td>2</td>
</tr>
<tr>
<td>&amp; CSCI 0190</td>
<td>Solving and Accelerated Introduction to Computer Science</td>
<td>2</td>
</tr>
</tbody>
</table>

2. Advanced Core:

<table>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0310</td>
<td>Introduction to Computer Systems</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1570</td>
<td>Linear System Analysis</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1630</td>
<td>Digital Electronics Systems Design</td>
<td>1</td>
</tr>
</tbody>
</table>

3. Specialty Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1620</td>
<td>Analysis and Design of Electronic Circuits</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1640</td>
<td>Design of Computing Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following:

- ENGN 1580 Communication Systems
- ENGN 1600 Design and Implementation of Very Large-Scale Integrated Systems
- ENGN 1650 Embedded Microprocessor Design
- ENGN 1680 Design and Fabrication of Semiconductor Devices
- ENGN 2910A Advanced Computer Architecture
- ENGN 2910P Nano-system Design
- ENGN 2910W Synthesis of VLSI Systems
- ENGN 2911C Digital Integrated Circuit Testing and Hardware Security
- ENGN 2911G Physical Design of Digital Integrated Circuits
- ENGN 2911X Reconfigurable Computing: Accelerate Your Algorithms
- ENGN 2911Y Verification, Test, Synthesis

Other ENGN courses subject to approval

Select two of the following:

- CSCI 0320 Introduction to Software Engineering
- CSCI 1260 Introductory Compiler Construction
- CSCI 1480 Building Intelligent Robots
- CSCI 1570 Design and Analysis of Algorithms
- CSCI 1670 Operating Systems
- CSCI 1730 Introduction to Programming Languages
- CSCI 1760 Introduction to Multiprocessor Synchronization
- CSCI 1900 Software System Design

Other Computer Science courses subject to approval of the Engineering Concentration Committee.

3 b. For the Multimedia Signal Processing Specialty:

- APMA 1170 Introduction to Computational Linear Algebra

Select two of the following:

- ENGN 1580 Communication Systems
- ENGN 1610 Image Understanding
- ENGN 2500 Medical Image Analysis
- ENGN 2520 Pattern Recognition and Machine Learning
- ENGN 2530 Digital Signal Processing
- ENGN 2540 Speech Processing
- ENGN 2560 Computer Vision
- ENGN 2570 Applied Stochastic Processes
- ENGN 2910X Video Processing

Select one of the following:

- CSCI 0320 Introduction to Software Engineering
- CSCI 1230 Introduction to Computer Graphics
- CSCI 1410 Introduction to Artificial Intelligence
- CSCI 1430 Introduction to Computer Vision
- CSCI 1570 Design and Analysis of Algorithms
- CSCI 1900 Software System Design

other CSCI courses subject to the approval of the Engineering Concentration Committee.

One additional course from the APMA, ENGN, and CSCI courses listed above.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Electrical Engineering Track:

1. **Core Courses:**
   - ENGN 0300 Introduction to Engineering
   - ENGN 0040 Dynamics and Vibrations
   - ENGN 0410 Materials Science
   - ENGN 0510 Electricity and Magnetism
   - ENGN 0520 Electrical Circuits and Signals
   - ENGN 0720 Thermodynamics
   - ENGN 0310 Mechanics of Solids and Structures or ENGN 0810 Fluid Mechanics
   - CHEM 0330 Equilibrium, Rate, and Structure
   - MATH 0190 Advanced Placement Calculus (Physics/Engineering)
   - MATH 0200 Intermediate Calculus (Physics/Engineering)
   - APMA 0330 Methods of Applied Mathematics I, II
   - APMA 0340 Methods of Applied Mathematics I, II
   - CSCI 0040 Introduction to Scientific Computing and Problem Solving
   - PHYS 0790 Physics of Matter

2. **Four courses from the following:**
   - ENGN 1570 Linear System Analysis
   - ENGN 1620 Analysis and Design of Electronic Circuits
   - ENGN 1630 Digital Electronics Systems Design
   - ENGN 1000 Projects in Engineering Design
   - ENGN 1970 Independent Studies in Engineering
   - ENGN 1971 Independent Study in Engineering

3. **The student shall choose the other three courses to satisfy requirements of a selected specialty area:**

4. **Upper level courses recommended to satisfy requirements of a selected specialty area, Mechanical Properties and Mechanical Processing, Electrical Properties and Applications of Materials to Solid State Electronics, Chemistry and Materials Processing and Synthesis, or Biomaterials, may be found in the Engineering Undergraduate Programs booklet available online at http://www.engage.brown.edu/undergrad/guide/index.html.

### Mechanical Engineering Track:

**Core Courses:**

- ENGN 0030 Introduction to Engineering
- ENGN 0040 Dynamics and Vibrations
- ENGN 0410 Materials Science
- ENGN 0510 Electricity and Magnetism
- ENGN 0520 Electrical Circuits and Signals
- ENGN 0720 Thermodynamics
- ENGN 0310 Mechanics of Solids and Structures
- ENGN 0810 Fluid Mechanics
- CHEM 0330 Equilibrium, Rate, and Structure
- MATH 0190 Advanced Placement Calculus (Physics/Engineering)
- MATH 0200 Intermediate Calculus (Physics/Engineering)
- APMA 0330 Methods of Applied Mathematics I, II
- APMA 0340 Methods of Applied Mathematics I, II
- CSCI 0040 Introduction to Scientific Computing and Problem Solving
- PHYS 0790 Physics of Matter

**Materials Engineering Track:**

1. **Core Courses:**
   - ENGN 0030 Introduction to Engineering
   - ENGN 0040 Dynamics and Vibrations
   - ENGN 0410 Materials Science
   - ENGN 0510 Electricity and Magnetism
   - ENGN 0520 Electrical Circuits and Signals
   - ENGN 0720 Thermodynamics
   - ENGN 0310 Mechanics of Solids and Structures

2. **Projects in Engineering Design:**
   - ENGN 1000 Projects in Engineering Design

3. **Three of the following upper level materials courses:**
   - ENGN 1450 Properties and Processing of Electronic Materials
   - ENGN 1470 Structure and Properties of Nonmetallic Materials
   - ENGN 1480 Metallic Materials
   - ENGN 1490 Biomaterials

4. **Upper level courses recommended to satisfy requirements of a selected specialty area, Mechanical Properties and Mechanical Processing, Electrical Properties and Applications of Materials to Solid State Electronics, Chemistry and Materials Processing and Synthesis, or Biomaterials, may be found in the Engineering Undergraduate Programs booklet available online at http://www.engage.brown.edu/undergrad/guide/index.html.

**Total Credits:** 21

1. Or, with permission, ENGN 1970 or ENGN 1971, containing an equivalent design experience relevant to Materials Engineering.

2. These courses are taken in either the junior or senior year.

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For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Engineering and Physics

The Sc.B. degree program in Engineering-Physics, sponsored jointly by the Division of Engineering and the Department of Physics, provides students with an in-depth understanding of the fundamental principles underlying modern technology. Specifically, it gives those who are interested in applied technical problems a strong background in physics and mathematics beyond that given in the standard engineering program. Students take a significant part of the usual engineering and physics programs, obtain substantial laboratory experience, and take several upper-level courses focusing on applied physics. The program allows students to take either the standard physics or engineering programs during their first two years and then switch to this combined program.

The total number of physical science courses required for the program is 19. (We assume that a student begins his or her mathematics courses at Brown with MATH 0170 or its equivalent. Students who begin in MATH 0200 or equivalent are encouraged but not required to take an additional upper-level mathematics course.)

The courses are as follows:

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0050 &amp; PHYS 0060</td>
<td>Foundations of Mechanics and Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0070 &amp; PHYS 0160</td>
<td>Analytical Mechanics and Introduction to Relativity and Quantum Physics</td>
</tr>
<tr>
<td>ENGN 0030 &amp; ENGN 0040</td>
<td>Introduction to Engineering and Dynamics and Vibrations</td>
</tr>
</tbody>
</table>

Select one of the following Series:

<table>
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<tr>
<th>Series</th>
<th>2</th>
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<tbody>
<tr>
<td>MATH 0170 &amp; MATH 0180</td>
<td>Advanced Placement Calculus and Intermediate Calculus</td>
</tr>
<tr>
<td>MATH 0190 &amp; MATH 0200</td>
<td>Advanced Placement Calculus (Physics/Engineering) and Intermediate Calculus (Physics/Engineering)</td>
</tr>
</tbody>
</table>

Select three additional higher-level math, applied math, or mathematical physics (PHYS 0720) courses.

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>ENGN 1590</td>
<td>Introduction to Semiconductors and Semiconductor Electronics</td>
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<tr>
<td>PHY 0470</td>
<td>Electricity and Magnetism</td>
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<td>ENGN 1510</td>
<td>Advanced Electromagnetic Theory</td>
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<tr>
<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
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<tr>
<td>ENGN 1560</td>
<td>Applied Electromagnetics</td>
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<tr>
<td>PHY 0500</td>
<td>Advanced Classical Mechanics</td>
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<td>or ENGN 1370</td>
<td>Advanced Engineering Mechanics</td>
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<td>PHY 1410</td>
<td>Quantum Mechanics A</td>
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<tr>
<td>PHY 1420</td>
<td>Quantum Mechanics B</td>
</tr>
<tr>
<td>PHY 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
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<tr>
<td>or ENGN 0720</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>ENGN 1620</td>
<td>Analysis and Design of Electronic Circuits</td>
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Select one of the following Series:

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<tr>
<td>ENGN 0310</td>
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<tr>
<td>ENGN 0810</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
</tbody>
</table>

A physics course on continuum mechanics.

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1690</td>
<td>Photonics and Applications</td>
</tr>
<tr>
<td>ENGN 0410</td>
<td>Materials Science</td>
</tr>
<tr>
<td>PHY 0560</td>
<td>Experiments in Modern Physics</td>
</tr>
<tr>
<td>PHY 1560</td>
<td>Modern Physics Laboratory</td>
</tr>
</tbody>
</table>

Total Credits: 19

In addition, students must take four courses in the humanities and social sciences. They are encouraged to consider taking courses dealing with the philosophical, ethical, or political aspects of science and technology.

To accommodate the diverse preparation of individual students, variations of the above sequences and their prerequisites are possible by permission of the appropriate concentration advisor and the instructors involved.

It is required that each student’s degree program be submitted for prior approval (typically in semester four) and scrutinized for compliance (in semester seven) by one faculty member from the Department of Physics and one faculty member from the Division of Engineering.

English

The English concentration introduces students to the study of literature written in English in a range of national and historical contexts. Concentrators will learn to analyze and think critically about a literary text as both a formal and historical document. They will also study the ways in which literature shapes, and is shaped by, issues in the contemporary world. Concentrators take one course providing them with historical grounding in English literature across three broad periods: 1) Medieval and Early Modern, 2) Enlightenment, Romantic, and Post-Romantic, and 3) 20th and 21st Century. The curriculum includes courses from the entire range of literature in English and a special "track" in Nonfiction Writing, which helps students strengthen their skills in critical writing, the research paper, journalism, creative writing, and nonfiction writing. One of the largest humanities concentrations at Brown, English may be pursued as the strong foundation for a liberal education and as a preparation for professional school and for graduate work in literature or other disciplines.

About the Concentration

Through the study of literature in English, concentrators develop skills in critical reading, thinking, and writing in preparation for a wide range of professions and careers including teaching, writing, publishing, media, medicine, law, and business. The concentration requirements aim to provide students with a coherent sense of the history of English literature from Anglo-Saxon times to the present. English concentrators have considerable latitude to choose the specific courses that will meet the requirements and we expect these choices to be informed by consistent consultation with a faculty advisor. Writing skills are an especially important focus of the English concentration. Through a variety of exercises from the short analytical essay to the longer research paper English concentrators are given a range of opportunities to sharpen their writing. We encourage students interested in concentrating in English to come into the department offices at 70 Brown Street and speak with a concentration advisor. Students in English courses who are considering an English concentration are welcome to make an appointment to speak with their instructor.

Concentration programs must be approved by a concentration advisor. To declare a concentration, students who have not previously filed a paper concentration form must fill out an online Concentration form via ASK, as well as the English Department’s Concentration Advising Plan (pdf). Students who declared their English Concentration in 2010-2011 or earlier may choose to fulfill the requirements for the previous version of the concentration (for details please see the English Department website).
Concentration Requirements (10 courses \(^1\) at the level of 0210 or above):

**Area I: Medieval and Early Modern Literatures and Cultures:**
- One course from the ENGL 0210 series
- One additional course in Medieval and Early Modern Literatures and Cultures

**Area II: Enlightenment and the Rise of National Literatures and Cultures:**
- One course from the ENGL 0410 series.
- One additional course in Enlightenment and the Rise of National Literatures and Cultures

**Area III: Modern and Contemporary Literatures and Cultures:**
- One course from the ENGL 0610 series.
- One additional course in Modern and Contemporary Literatures and Cultures

One theory course
Three electives \(^2\)

Total Credits: 10

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1. Five courses must be 1000-level courses. With advisor approval, two of the ten required courses may be taken in departments other than English.
2. As many as two 1000-level courses dealing primarily with the practice of writing, rather than that interpretation of literature, may be counted as electives.

All substitutions and/or exceptions must be approved by the concentration advisor in consultation with the Director of Undergraduate Studies. A substitution or exception is not approved until specified in writing in the student’s concentration file housed in the English Department.

**English Concentration -- Nonfiction Writing Track (11 courses at the level of 0210 or above)**

The English concentration also includes a Nonfiction Writing Track. The requirements are the same as above plus one English literature course emphasizing the genre of nonfiction writing and three 1000-level Nonfiction Writing courses for a total of eleven courses.

**Honors in English**

Requirements are the same as those for the regular concentration, with the following additions:

Honors candidates must complete at least three upper-level seminars or comparable small courses and complete ENGL 1991 and ENGL 1992. Honors candidates must also earn more A’s than B’s in courses taken as part of the English concentration (or receive equivalent faculty evaluation on a Course Performance Report for courses taken S/NC).

Applicants for Honors must have two letters of recommendation submitted to the Honors Advisor, a writing sample, and a one-page description of their proposed topic signed by the faculty member who has agreed to serve as the director of their thesis.

**Honors in Nonfiction Writing**

Requirements are the same as those for the Nonfiction Writing Track. Eligible Honors applicants must have completed three upper-level seminars, two of which must be nonfiction writing seminars. Honors candidates must successfully complete ENGL 1993 and ENGL 1994. Honors candidates must also earn more A’s than B’s in courses taken as part of the English concentration (or receive equivalent faculty evaluation in a Course Performance Report for courses taken S/NC).

Applicants for Honors in Nonfiction Writing must have two letters of recommendation submitted to the Nonfiction Honors Advisor, a writing sample, and a one-page description of their proposed topic signed by the faculty member who has agreed to serve as the director of the thesis.

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**Environmental Studies**

The Center for Environmental Studies offers an A.B. and an Sc.B. in Environmental Studies. Both degrees are directed toward students who intend to work toward improving the quality of the environment. The A.B. degree is appropriate for students interested in social science or policy approaches to environmental problem-solving and who want to pursue post-graduate or professional experience in various fields of environmental management or education. Fluency in some basic sciences is essential to this degree. The ScB degree is appropriate for students who are interested in post-graduate or professional experience in the natural sciences as a way of understanding environmental processes. All concentrators are strongly encouraged to perform some environmentally-related public service during their time at Brown. Service may include work as a teaching assistant in a relevant course, volunteer work with an environmental non-profit group or an environmental agency, or significant work with a student environmental group.

**Standard program for the A.B. degree in Environmental Studies**

**Basic Prerequisites**

Competence in mathematics sufficient to take courses approved for the concentration.

**Core Requirements**

- ENVS 0110 Humans, Nature, and the Environment: Addressing Environmental Change in the 21st Century (or an approved alternative) \(^1\) \(^2\)
- ENVS 0490 Environmental Science in a Changing World \(^2\)
- Select three intermediate level social science or humanities courses appropriate to the student’s focus, for example: \(^3\)
- ENVS 0510 International Environmental Law and Policy
- ENVS 1350 Environmental Economics and Policy
- ENVS 1410 Environmental Law and Policy
- ENVS 1710 Environmental Health and Policy
- HIST 1790 North American Environmental History
- Select two intermediate level environmental science courses appropriate to the student’s focus, for example: \(^4\)
- BIOL 0420 Principles of Ecology
- GEOL 0220 Physical Processes in Geology
- BIOL 0440 Plant Organism
- BIOL 1470 Conservation Biology
- ENVS 0455 Coastal Ecology and Conservation

Competence in statistic and/or qualitative methods based on the students focus.

- ENVS 1920 Analysis and Resolution of Environmental Problems/Case Studies \(^5\)

**Focus**

Select four focus courses beyond the introductory level.

**Capstone Requirement \(^5\)**

Thesis:

<table>
<thead>
<tr>
<th>ENVS 1970/1971</th>
<th>Independent Study</th>
</tr>
</thead>
</table>

Total Credits: 14-15

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1. Alternatives to ENVS 0110 may include GEOL 0160B Global Change: Ecology and Climate, ENVS 0070B Environment and Society (SOC 0300B), or a similar course from transferring institution depending on the student’s situation. Substitution requires approval of the concentration advisor.
2. A score of 5 on AP exam may be used to satisfy ENVS 0110 or ENVS 0490 with permission of the concentration advisor.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
1. Students are strongly encouraged to take Environmental Economics and an environmental policy course.

2. Other intermediate level science courses may be substituted with the approval of the concentration advisor.

3. Concentrators in the Class of 2013-2013.5 who have satisfied the ENVS 1920 requirement can satisfy the capstone requirement in one of the four following ways: 1. ENVS 1970 and ENVS 1971: a full-year senior thesis; 2. ENVS 1970: a one-semester senior thesis; 3. ENVS 1970: an environmentally-related internship (at least 150 hours) or group project and paper; 4. Take an approved ENVS senior seminar.

4. Concentrators in the Class of 2013-2013.5 who have not satisfied the ENVS 1920 requirement must: A. Take an additional focus class AND B. Complete one of the following four capstone options from above.

### Standard program for the Sc.B. degree in Environmental Science

#### Basic Requirements

- Competence in mathematics and chemistry
  - MATH 0090 Introductory Calculus, Part I 1
  - MATH 0100 Introductory Calculus, Part II 1
  - CHEM 0330 Equilibrium, Rate, and Structure 1

#### Core Requirements

- ENVS 0110 Humans, Nature, and the Environment: Addressing Environmental Change in the 21st Century (or an approved alternative) 2, 3
- ENVS 0490 Environmental Science in a Changing World 3 1
- Select two intermediate level non-science courses appropriate to the student's focus, for example: 4
  - ENVS 0510 International Environmental Law and Policy
  - ENVS 1350 Environmental Economics and Policy
  - ENVS 1410 Environmental Law and Policy
  - ENVS 1710 Environmental Health and Policy
  - ENVS 1790 North American Environmental History (HIST 1790)
- Select three intermediate level environmental science courses appropriate to the student's focus, for example: 5
  - BIOL 0420 Principles of Ecology
  - GEOL 0220 Physical Processes in Geology
  - BIOL 0440 Plant Organism
  - BIOL 1470 Conservation Biology
  - ENVS 0455 Coastal Ecology and Conservation

#### Competence in statistics, for example:

- PHP 2500 Introduction to Biostatistics
- PHP 2501 Introduction to Multivariate Regression (BC 203, BC 213)
- ENVS 1920 Analysis and Resolution of Environmental Problems/Case Studies 6

#### Focus

- Six focus courses beyond the introductory level
  - 5 of the 6 must be science courses
  - 3 of the 6 must be at the 1000-level
  - at least one (1) course must have laboratory or field-based component

#### Capstone Requirement 6

- Thesis: 1-2
  - ENVS 1970/1971 Independent Study

#### Total Credits

19-20

### Ethnic Studies

Ethnic Studies is an interdisciplinary, comparative concentration that examines the construction of race and ethnicity in social, cultural, historical, political, and economic contexts. Concentrators develop individual programs based on areas of focus in consultation with faculty advisors, drawing from courses in the humanities and social sciences. Typical areas of focus are social issues (such as inequality, education, or health), cultural production and the representation of racial groups, processes of racialization, the historical formation of transnational communities and of diaspora, and the history of particular ethnic or racial groups. The concentration is supported by the Center for the Study of Race and Ethnicity, a research center that facilitates teaching, research, and programming on issues relevant to biracial and multiracial peoples, and emphasizes the interdisciplinary and comparative study of race, ethnicity, gender, and class.

Each concentrator is required to study the history and experience of more than one group. The focus may be either a United States–based comparative analysis or a United States/international analysis. Each program is to be organized around a set of core courses that help students to identify a set of historical and theoretical questions to be investigated and provide the tools necessary to address those questions. Each concentrator pursues work in either literature and arts, the humanities, or the social sciences, or some combination of these. The work is to be systematic and well-defined. A faculty advisor works closely with the student to ensure that the work is rigorous and intellectually sound. The primary advisors for ethnic studies concentrators are the members of the Ethnic Studies Executive Committee.

### Requirements:

- ETHN 0500 Introduction to American/Ethnic Studies 1
- Select two of the following:
  - AFRI 0090 An Introduction to Africana Studies
  - A course from the AMST 1610 series, as approved by the concentration advisor
  - ANTH 1121 From Coyote to Casinos: Native North American Peoples and Cultures
  - SOC 1270 Race, Class, and Ethnicity in the Modern World
  - ANTH 1400 Race, Culture, and Ethnic Politics
  - OR ANTH 1420 Ethnicity, Race, and Gender in the Americas

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Courses taught by core Ethnic Studies faculty may be recognized in consultation with concentration advisor.

Three approved courses in the ethnic studies that addresses the student’s focus area.

Three courses drawn from a list of related courses.

A course from the ENTH 1900 series.

Total Credits

1 To be taken in the first semester of the student’s final year. The senior seminar is the capstone course and is required of all concentrators.

Honors

Candidates for honors must have at least a B+ average in the concentration and be approved by the Concentration Committee. Honors candidates will propose a thesis project to be completed by the end of their final semester. The development of a thesis project will begin during the sixth semester. Honors candidates will have two readers, at least one of whom must be Ethnic Studies core faculty.

Concentrators who choose not to request consideration for honors will be required to complete a major essay or project by the end of their final semester. The essay or project can be the result of major work completed in the senior seminar.

Students seeking information about the Ethnic Studies Program or in need of advising should contact the Center for the Study of Race and Ethnicity

French Studies

Building upon a foundation of proficiency in the French language, concentrators in French Studies explore the culture, history, and literature of Francophone civilizations. Students select from a variety of courses in language, historical periods, genres, themes, major writers, film, and civilization. Students interested in living in a French environment often reserve rooms in the coed dormitory (Machado House) at 87 Prospect Street. A Resident Coordinator in French maintains a planned program of activities centered around French conversation, movies, lectures, and cooking. Study abroad opportunities are available in Paris, Lyon and other francophone countries. Most students are required to take a placement exam. See departmental website (http://www.brown.edu/Departments/French/undergraduate/placement_exam.php) for details.

The Department of French Studies offers three standard concentration tracks. Please note that the following apply to the French Civilization, French Literature and French Language tracks:

1. FREN 0600 or equivalent is a prerequisite.
2. The overall requirement is for a minimum of nine courses (ten for Honors). 
3. Up to four courses taken abroad may count for concentration credit.
4. The senior seminar (FREN 1900) must be taken during the senior year. (Requirement for Civilization and Literature concentrations only).

French Civilization Track

The concentration in civilization enables students to develop a multifaceted understanding of French and Francophone cultures, histories and contemporary issues. While based in French Studies, the program is interdisciplinary, calling for the integration of elective courses in departments such as History, Africana Studies, History of Art, International Relations, Political Science, etc. A minimum of seven courses are to be taken in French Studies.

Required courses

An upper-level language course from the FREN 1510 or FREN 1610 series

A course from the FREN 0750 series

A course from the FREN 1900 series

Electives

Six courses: Four must be in French Studies. A maximum of two may be in other departments, at the 1000-level or higher. 1

Total Credits

French Literature Track

The literature concentration provides a comprehensive view of French and Francophone literature and various types of literary analysis. Introductory courses acquaint students with methods of intellectual inquiry and basic critical approaches. Upper-level courses explore a particular author, literary genre, period, or special topic. Students learn how to use diverse analytical approaches, including semiotic, philosophical, psychological, feminist, and reader-oriented methods of criticism.

Required courses

An upper-level language course from the FREN 1510 or FREN 1610 series

A course from the FREN 0760 series

A course from the FREN 1000 series

A course from the FREN 1900 series

Electives

Select five courses from the FREN 0750 and FREN 1010 series and higher.

Total Credits

French Language Track

The concentration in language combines advanced linguistic proficiency with the study of language as a human phenomenon. It combines course work in French Studies with disciplines that analyze the functioning of language (Cognitive and Linguistic Sciences), use linguistic models to study other fields of human behavior (Anthropology), or provide other specialized insight (e.g., Comparative Literature, Philosophy, Modern Communication and Media).

Required courses

A course from the FREN 1510 series

A course from the FREN 1610 series

A course from the FREN 1020 series

Two courses in French Studies, from the FREN 0750 series or higher.

One final independent study course to provide a synthesis of the knowledge acquired in various areas of study.

Electives:

Select three 1000- or 2000-level courses in other departments. 1

Total Credits

The Honors Program

Candidacy for honors in French Studies presupposes an outstanding academic record, particularly in the major field. Any of the programs may be expanded into an Honors Concentration with these differences: the student will take a minimum of ten courses and write an Honors Thesis. While normally taken only in the seventh semester, students may opt to re-enroll in FREN 1990 (Senior Thesis) during the last semester, in which case eleven courses are required.

Further information on French Concentration Tracks and the Honors Programs is available on the department’s web site or from the Director of Undergraduate Studies.

Gender and Sexuality Studies

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Gender and Sexuality Studies is an interdisciplinary concentration that examines the construction of gender and sexuality in social, cultural, political, economic, or scientific contexts. Each concentrator focuses on a well-defined topic or question and works closely with a concentration advisor to develop a program that investigates this focus area rigorously and supplements it with foundational courses in the relevant disciplines. Typical areas of focus include the acculturation of gender, sexuality and race in American politics or activism, the construction of sexual and gendered identities in educational institutions or in various forms of visual media, a contrast between different cultural understandings of sexual identity, a particular national literature and history. Such topics will frequently bring questions of gender and sexuality together; however, students may also organize their concentrations to emphasize questions specifically related to gender or to sexuality. Introductory and methodology courses in the disciplines appropriate to students’ focus will help them understand the principles grounding such practices as historical research, literary interpretation, and sociological analysis.

Requirements:
The concentration requires 10 courses, 12 for honors concentrators.

1. GNSS 0120: Introductory course on gender and sexuality across the disciplines
2. Four-course focus on some thematic, theoretical, or historical aspect of gender and sexuality
3. Two introductory or methodology courses in disciplines pertinent to the focus
4. One course in gender history, women’s history, or history of sexuality
5. One course in feminist theory or theory of sexuality
6. A senior seminar which counts as your capstone course. Senior seminar participants are expected to write a research essay.
7. Prior to Commencement, all graduating senior concentrators are required to give a short presentation of either their senior essay or thesis project.

Honors
Candidates for honors must apply to the program’s director in their sixth semester. Honors concentrators fulfill the regular requirements plus completing a two-semester thesis as their capstone project.

For more information, including current cross-listed courses and sample concentration plans, please consult the concentration webpage (http://www.pembrokecenter.org/IP_UndergraduateProgram.asp).

Geological Sciences
Geological science involves the study of the Earth (and other planetary bodies), including their compositions and histories and the physical, chemical and biological processes that shape them. The geosciences are highly interdisciplinary, thus students must take some supporting math and science courses. Geoscience courses emphasize a process-oriented approach, with hands-on experiences in labs and on field trips. There is a strong emphasis on active and collaborative learning, and on practice in communication. Students may choose an AB (total of 13 courses) or an ScB (19 total courses, including one semester of research). There are many opportunities for students to do research work (typically in paid positions) during the academic year or in the summer, in areas such as deformation and properties of geological materials, deciphering the geologic history of some local rocks, or analysis of planetary images.

Standard program for the A.B. degree
This program provides a broad introduction to the geological sciences. Recommended for students seeking a liberal education and a general understanding of Earth processes and Earth history. Especially attractive for double concentrations, such as geology and economics as a career path to law or business, or geology and English as a career path to journalism or technical writing.

Basic supporting science courses
- CHEM 0330: Equilibrium, Rate, and Structure (or advanced placement)
- MATH 0090: Introductory Calculus, Part I
- MATH 0100: Introductory Calculus, Part II (or more advanced)
- PHYS 0050: Foundations of Mechanics
- PHYS 0060: Foundations of Electromagnetism and Modern Physics (or more advanced)
- ENGN 0030: Introduction to Engineering
- ENGN 0040: Dynamics and Vibrations (or more advanced)
- BIOL 0200: The Foundation of Living Systems (or more advanced)

Concentration courses
- GEOL 0220: Physical Processes in Geology
- GEOL 0230: Geochemistry: Earth and Planetary Materials and Processes
- GEOL 0240: Earth: Evolution of a Habitable Planet
- Select two of the following:
  - GEOL 1410: Mineralogy
  - GEOL 1420: Petrology
  - GEOL 1450: Structural Geology
- Select two of the following:
  - GEOL 0310: Fossil Record
  - GEOL 1110: Estuarine Oceanography
  - GEOL 1240: Stratigraphy and Sedimentation
  - GEOL 1580: Quantitative Elements of Physical Hydrology

A field course
- Select two additional courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor.

Total Credits 13

Standard program for the Sc.B. degree
This program is recommended for students interested in graduate study and careers in the geosciences and related fields.

Basic supporting science courses
- Select two courses in mathematics at the level of:
  - MATH 0090: Introductory Calculus, Part I
  - MATH 0100: Introductory Calculus, Part II
  - or another more advanced math course
- CHEM 0330: Equilibrium, Rate, and Structure (or advanced placement)
- Select one of the following Series:
  - PHYS 0050: Foundations of Mechanics
  - PHYS 0060: Foundations of Electromagnetism and Modern Physics (or more advanced)
  - ENGN 0030: Introduction to Engineering and Dynamics and Vibrations (or more advanced)

Concentration courses
- GEOL 0220: Physical Processes in Geology
- GEOL 0230: Geochemistry: Earth and Planetary Materials and Processes
- GEOL 0240: Earth: Evolution of a Habitable Planet
- GEOL 0310: Fossil Record
- GEOL 1240: Stratigraphy and Sedimentation
- GEOL 1410: Mineralogy
- GEOL 1420: Petrology

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
**Geology-Biology**

Geology-Biology involves study of the interactions of the Earth and its hydrosphere and atmosphere with the great diversity of life forms, and how they have evolved and influenced one another over the entire history of the Earth. Many courses emphasize climate and biogeochemistry; this concentration is a good one for students interested in quantitative approaches to environmental science. Students take a basic suite of geoscience courses and at least 4 bio courses of their choosing, plus some supporting math and science courses; the AB degree requires a total of 14 courses and the ScB degree requires a total of 19, including one semester of research. There is a strong emphasis on active and collaborative learning, and on practice in communication. There are many opportunities for students to do research work (typically in paid positions) during the academic year or in the summer, in areas such as determining the history of climate change during the recent ice age, investigating the causes of major extinctions, and using paleoenvironmental records to determine the vulnerability of different regions of the globe to droughts and other processes that strongly affect society.

**Standard program for the A.B. degree**

This program emphasizes interactions between biological and geological processes including an understanding of the origin and development of life as interpreted from the geologic record, evolution of climate and environments, and dynamic processes in the stratigraphic record. Prepares students for work in environmental issues, geology, ecology, oceanography, or global change.

### Basic supporting science courses

- **BIOL 0200** The Foundation of Living Systems (or more advanced) 1
- **CHEM 0330** Equilibrium, Rate, and Structure (or advanced placement) 1

Select two courses in mathematics and/or physics and/or engineering at the level of:

- **MATH 0090** Introductory Calculus, Part I (or more advanced) 2
- **MATH 0100** Introductory Calculus, Part II (or more advanced)
- **PHYS 0050** Foundations of Mechanics (or more advanced) 1
- **PHYS 0060** Foundations of Electromagnetism and Modern Physics (or more advanced)
- **ENGN 0030** Introduction to Engineering (or more advanced)
- **ENGN 0040** Dynamics and Vibrations (or more advanced)

### Concentration courses

- **GEOL 0220** Physical Processes in Geology 1
- **GEOL 0230** Geochemistry: Earth and Planetary Materials and Processes 1
- **GEOL 0240** Earth: Evolution of a Habitable Planet 1
- **GEOL 0310** Fossil Record 1
- **GEOL 1240** Stratigraphy and Sedimentation 1

Select three Biology courses such as (but not limited to):

- **BIOL 0410** Invertebrate Zoology 3
- **BIOL 0420** Principles of Ecology
- **BIOL 0430** The Evolution of Plant Diversity
- **BIOL 0470** Genetics

Select two upper level geological sciences courses such as (but not limited to):

- **GEOL 1100** Global Physical/Descriptive Oceanography
- **GEOL 1110** Estuarine Oceanography
- **GEOL 1120** Paleoclimatology
- **GEOL 1130** Ocean Biogeochemical Cycles
- **GEOL 1330** Global Environmental Remote Sensing
- **GEOL 1350** Weather and Climate
- **GEOL 1370** Environmental Geochemistry
- **GEOL 1380** Environmental Stable Isotopes

**Total Credits**: 14

**Standard program for the Sc.B. degree**

This program is recommended for students interested in graduate study and careers in geobiology and related fields.

### Basic supporting science courses

- **BIOL 0200** The Foundation of Living Systems (or more advanced) 1
- **CHEM 0330** Equilibrium, Rate, and Structure (or advanced placement) 1
- **PHYS 0050** Foundations of Mechanics (or more advanced) 1
- **PHYS 0060** Foundations of Electromagnetism and Modern Physics (or more advanced)
- **MATH 0100** Introductory Calculus, Part I 2
- **MATH 0100** Introductory Calculus, Part II (or more advanced)

### Concentration courses

- **GEOL 0220** Physical Processes in Geology 1
- **GEOL 0230** Geochemistry: Earth and Planetary Materials and Processes 1
- **GEOL 0240** Earth: Evolution of a Habitable Planet 1
- **GEOL 0310** Fossil Record 1
- **GEOL 1240** Stratigraphy and Sedimentation 1

Select three Biology courses such as (but not limited to):

- **BIOL 0410** Invertebrate Zoology 3
- **BIOL 0420** Principles of Ecology
- **BIOL 0430** The Evolution of Plant Diversity
- **BIOL 0470** Genetics

Select two upper level geological sciences courses such as (but not limited to):

- **GEOL 1100** Global Physical/Descriptive Oceanography
- **GEOL 1110** Estuarine Oceanography
- **GEOL 1120** Paleoclimatology
- **GEOL 1130** Ocean Biogeochemical Cycles
- **GEOL 1330** Global Environmental Remote Sensing
- **GEOL 1350** Weather and Climate
- **GEOL 1370** Environmental Geochemistry
- **GEOL 1380** Environmental Stable Isotopes

**Total Credits**: 14

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Select three additional courses from upper level geological sciences, upper level mathematics, or supporting sciences with approval from the departmental concentration advisor.

GEOL 1970  Individual Study of Geologic Problems  1

Total Credits  19

Geology-Chemistry

Geochemistry involves two different emphases. Low-temperature geochemistry involves study of chemical and biochemical processes on and near Earth's surface, including land, oceans and freshwater bodies, and how the geochemical record reflects climate conditions. High-temperature geochemistry includes study of formation and evolution of the Earth and other planets, magma formation and properties, volcanic activity, and metamorphism. The AB degree requires a total of 14 courses, including 5 geoscience courses and 4 chemistry courses, and a few supporting math and physics courses. The ScB degree requires a total of 20 courses, including 7 geoscience courses and 4 chemistry courses, either with an organic or an inorganic focus, plus some supporting math and physics courses and one research course. Geoscience courses emphasize a process-oriented approach, with hands-on experiences in labs and on field trips. There is a strong emphasis on active and collaborative learning, and on practice in communication. There are many opportunities for students to do research work for pay during the academic year or in the summer, in areas such as experimental studies of magma formation, and analyzing lunar rock samples for water content.

Standard program for the A.B. degree

Recommended for students seeking a liberal education and interested in applying physical and chemical principles toward an understanding of Earth history, Earth processes, and environmental and resource issues.

Basic supporting science courses

Select two courses in mathematics at the level of:

MATH 0090  Introductory Calculus, Part I (or more advanced)
MATH 0100  Introductory Calculus, Part II (or more advanced)

CHEM 0330  Equilibrium, Rate, and Structure

PHYS 0050  Foundations of Mechanics (or a more advanced course, or advanced placement.)

or ENGN 0030  Introduction to Engineering

Concentration courses

GEOL 0220  Physical Processes in Geology
GEOL 0230  Geochemistry: Earth and Planetary Materials and Processes
GEOL 0240  Earth: Evolution of a Habitable Planet
GEOL 1130  Ocean Biogeochemical Cycles
or GEOL 1370  Environmental Geochemistry
GEOL 1410  Mineralogy
GEOL 1420  Petrology

Plus one from:

GEOL 1240  Stratigraphy and Sedimentation
GEOL 1330  Global Environmental Remote Sensing
or GEOL 1710  Remote Sensing of Earth and Planetary Surfaces
GEOL 1450  Structural Geology

Three from:

CHEM 0350  Organic Chemistry
CHEM 0500  Inorganic Chemistry
CHEM 1060  Advanced Inorganic Chemistry
CHEM 1140  Physical Chemistry: Quantum Chemistry
CHEM 1150  Physical Chemistry: Thermodynamics and Statistical Mechanics

Geochemistry/Organic Option:

GEOL 0220  Physical Processes in Geology
GEOL 0230  Geochemistry: Earth and Planetary Materials and Processes
GEOL 0240  Earth: Evolution of a Habitable Planet
GEOL 1130  Ocean Biogeochemical Cycles
GEOL 1370  Environmental Geochemistry
GEOL 1410  Mineralogy

Plus one from:

GEOL 1240  Stratigraphy and Sedimentation
GEOL 1330  Global Environmental Remote Sensing
or GEOL 1710  Remote Sensing of Earth and Planetary Surfaces
GEOL 1380  Environmental Stable Isotopes

Three Chemistry courses:

CHEM 0350  Organic Chemistry
CHEM 0360  Organic Chemistry

Plus one additional chemistry course

Four additional courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor.

Total Credits  14

Standard program for the Sc.B. degree

This program is recommended for students interested in graduate study and careers in geochemistry and related fields.

Basic Supporting Science Courses:

Select two courses in mathematics at the level of:

MATH 0090  Introductory Calculus, Part I (or more advanced)
MATH 0100  Introductory Calculus, Part II (or more advanced)
CHEM 0330  Equilibrium, Rate, and Structure

Select one of the following series:

PHYS 0050  Foundations of Mechanics
PHYS 0060  Foundations of Electromagnetism and Modern Physics

ENGN 0030  Introduction to Engineering

or a more advanced course

Concentration Courses:

Either the geochemistry/inorganic option or the geochemistry/organic option:

Geochemistry/Inorganic Option:

GEOL 0220  Physical Processes in Geology
GEOL 0230  Geochemistry: Earth and Planetary Materials and Processes
GEOL 0240  Earth: Evolution of a Habitable Planet
GEOL 1130  Ocean Biogeochemical Cycles
or GEOL 1370  Environmental Geochemistry
GEOL 1410  Mineralogy

Plus one from:

GEOL 1240  Stratigraphy and Sedimentation
GEOL 1330  Global Environmental Remote Sensing
or GEOL 1710  Remote Sensing of Earth and Planetary Surfaces
GEOL 1450  Structural Geology

Three from:

CHEM 0350  Organic Chemistry
CHEM 0500  Inorganic Chemistry
CHEM 1060  Advanced Inorganic Chemistry
CHEM 1140  Physical Chemistry: Quantum Chemistry
CHEM 1150  Physical Chemistry: Thermodynamics and Statistical Mechanics

Geochemistry/Organic Option:

GEOL 0220  Physical Processes in Geology
GEOL 0230  Geochemistry: Earth and Planetary Materials and Processes
GEOL 0240  Earth: Evolution of a Habitable Planet
GEOL 1130  Ocean Biogeochemical Cycles
GEOL 1370  Environmental Geochemistry
GEOL 1410  Mineralogy

Plus one from:

GEOL 1240  Stratigraphy and Sedimentation
GEOL 1330  Global Environmental Remote Sensing
or GEOL 1710  Remote Sensing of Earth and Planetary Surfaces
GEOL 1380  Environmental Stable Isotopes

Three Chemistry courses:

CHEM 0350  Organic Chemistry
CHEM 0360  Organic Chemistry

Plus one additional chemistry course

Four additional courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor.

Total Credits  20

1 Advanced placement may be substituted for the first semester of physics.

Geology-Physics/Mathematics

Geophysics involves the application of physics and mathematics to the study of processes that operate on and within the Earth and other
Global Environmental Remote Sensing (related to Methods of Applied Mathematics I, II)

Computational Approaches to Modelling and Equilibrium, Rate, and Structure (or advanced Structural Geology (related to solid Earth dynamics)

Physical Processes in Geology (related to climate and the environment)

Recommended for students seeking a liberal education and interested in applying physical and mathematical principles toward an understanding of

Basic supporting science courses

Select one of the following Series:

PHYS 0050 & PHYS 0060 Foundations of Mechanics and Foundations of Electromagnetism and Modern Physics

PHYS 0070 & PHYS 0160 Analytical Mechanics and Introduction to Relativity and Quantum Physics

ENGN 0030 & ENGN 0040 Introduction to Engineering and Dynamics and Vibrations

CHEM 0330 Equilibrium, Rate, and Structure (or advanced placement)

Concentration courses

GEOL 0220 Physical Processes in Geology

GEOL 0230 Geochemistry: Earth and Planetary Materials and Processes

GEOL 0250 Computational Approaches to Modelling and Quantitative Analysis in Natural Sciences: An Introduction

GEOL 1970 Two additional courses from upper level geological sciences, mathematics or physics course with approval from the departmental concentration advisor.

Total Credits 14

Standard program for the A.B. degree

Standard program for the Sc.B. degree

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
back at the German literary, cultural, and historical tradition, examining figures from Goethe or Christa Wolf to Marx, Freud, Nietzsche, and Heidegger, alongside the texts of contemporary German media, including television, film, and music. Most concentrators study abroad for one or two semesters.

**Standard program for the A.B. degree**

Many students elect to complete a double concentration, combining German Studies with one of the above areas, or with fields such as International Relations or Economics, Comparative Literature or History of Art and Architecture.

Concentrators are expected to develop a course of study that will meet their particular needs and interests. In order to do this, students select an area of focus for their concentration, in consultation with the concentration advisor and other appropriate faculty. They should select at least three advanced courses in this area.

Knowledge of the German language is not required for declaring a concentration in German Studies. However, since language fluency is the basis for sophisticated understanding of German culture, students must meet a language requirement by the time they graduate.

**Concentration Requirements**

- Nine courses beyond GRMN 0400 or GRMN 0450;
- At least six of the nine courses must be at the 1000-level (or higher);
- Two of the 1000-level courses must involve writing assignments in German, and students must obtain at least a grade of B in these courses;
- At least five of the nine courses must be taken in the Department of German Studies (or four if a student spends a whole year in Germany on Study Abroad);
- Completion of a Senior Seminar during the senior year (i.e. a course from the German Studies 1900 series) as part of the five courses within the Department of German Studies; and
- If a student studies abroad for one semester, as many as four courses, in the case of two semesters, as many as five courses, from study abroad may count toward the concentration.

**Honors**

Candidates for honors will be expected to have a superior record in departmental courses and will have to be approved by the Department of German Studies. Honors candidates must take one additional course at the 1000-level from the German studies offerings and present an acceptable Senior Honors Thesis. The additional course may be used for preparation of the honors thesis. Students are encouraged to discuss their thesis topics with the concentration advisor no later than the third week of classes in Fall of their Senior year.

**Health & Human Biology**

Health and Human biology is an interdisciplinary concentration whose goals are to provide a rigorous foundation in the biological sciences with course work in humanities and social sciences within a subfield of Human Health and Disease.

The program includes: background courses, Biology core courses, a set of Theme courses, and a Senior Capstone. Background courses provide the essential foundations in chemistry, mathematics, methods, and basic biology. These support the Biology core, comprised of a flexible menu of intermediate and advanced courses. A required portion of the Biology core is Genetics, which is considered a cornerstone of human biology and its interface with other fields. The Biology core underscores the related coursework within the Health and Disease Theme. This course grouping is comprised of social science and humanities courses and must form a cohesive, thoughtful cohort. Suggested theme subfoci must be discussed and approved by an advisor. It is expected that these course selections will evolve over the course of the student’s college career, as each semester’s experience builds on the previous one. Finally, the human biology program requires a senior year capstone course or experience, which should build on the program’s theme.

**Program Requirements**

**Required Background:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I (or Advanced Placement)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or Advanced Placement)</td>
<td>1</td>
</tr>
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</table>

A Statistics or Methods course (chosen with advisor’s approval), for example:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
</tr>
<tr>
<td>BIOL 0495</td>
<td>Statistical Analysis of Biological Data</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
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</tbody>
</table>

**Core Program:**

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series A</th>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
</tbody>
</table>

**Series B**

| BIOL 0480      | Evolutionary Biology                |
| BIOL 0500      | Cell and Molecular Biology          |

**Series C**

| BIOL 0310      | Introduction to Developmental Biology |
| BIOL 0320      | Vertebrate Embryology                |
| BIOL 0400      | Biological Design: Structural Architecture of Organisms |
| BIOL 0800      | Principles of Physiology             |
| BIOL 1310      | Analysis of Development              |
| BIOL 1800      | Animal Locomotion                    |
| BIOL 1880      | Comparative Biology of the Vertebrates |
| NEUR 0010      | The Brain: An Introduction to Neuroscience |

Select one course in organismal/population biology such as:

| BIOL 0380      | The Ecology and Evolution of Infectious Disease |
| BIOL 0390      | Vertebrate Evolution and Diversity          |
| BIOL 0400      | Biological Design: Structural Architecture of Organisms |
| BIOL 0410      | Invertebrate Zoology                       |
| BIOL 0420      | Principles of Ecology                      |
| BIOL 0475      | Conservation Medicine                      |
| BIOL 0480      | Evolutionary Biology                      |
| BIOL 1410      | Evolutionary Genetics                     |
| BIOL 1430      | The Computational Theory of Molecular Evolution |
| BIOL 1475      | Biogeography                             |
| BIOL 1480      | Terrestrial Biogeochemistry and the Functioning of Ecosystems |
| BIOL 1880      | Comparative Biology of the Vertebrates     |
| ENVS 0490      | Environmental Science in a Changing World  |
| ENVS 0455      | Coastal Ecology and Conservation          |
| ENVS 1455      | Marine Conservation Science and Policy     |

**Total Credits**

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
1. Note: These latter two options involve TWO courses, both of which would therefore count as part of the five biology course portion of the program.

2. BIOL 0480 serves as the organismal/population biology course that is required.

3. At least one of these at the advanced (>1000) level.

4. The unifying theme in this program is Human Health and Disease. With advisor's assistance, a subfocus is chosen from departments such as: CLPS, PHP, EDUC, GNSS, SOC, ANTH, HIST, SCSO, ETHN, ENVS, AFRI, PPAI, and sections of BIOL 1920; others by approval or suggestion of the advisor. Approved courses must be suitable for concentrators, and at least one must be advanced (>1000 level in the discipline).

5. May be fulfilled by an independent activity such as an approved relevant advanced course, seminar or, Directed Research (eg. BIOL 1950/1960, or an independent study in another Department if approved by the concentration advisor), or an appropriate internship accompanied by a scholarly paper written under the direction of a Brown faculty mentor. The Capstone activity must be approved by the concentration advisor and must be carried out during the senior year.

THEME: Examples of thematic subfoci that may describe a course grouping include (but are not necessarily limited to):
- Health Behavior (Brain & Behavior)
- Health Systems Structure and Policy
- Culture and Health
- Environmental Health
- Global/International Health
- Women’s/Children’s Health
- Disability/Ethics
- Social context
- Race and ethnic disparities in disease

HONORS: Honors in Human Biology is based on approved Capstone research that yields a thesis and oral presentation, plus quality grades. (see more information about Honors at http://biology.brown.edu/bug/honors)

Hispanic Studies

Spanish is the second most widely spoken language in the world and the second language of the United States. In our society, knowing Spanish is not just an asset; it is increasingly a necessity. The Hispanic Studies concentration enables students to develop advanced Spanish skills while acquiring a solid background in the complex history, literature, cultures, and intellectual traditions of Spain, Latin America, and the Latino-U.S.

The Department of Hispanic Studies offers a variety of courses on topics related to literary history and theory; multicultural contact; linguistics and the history of the language; visual culture, film, and performance studies. Interdisciplinarity is a hallmark of the department, but students in this concentration are also encouraged to broaden their perspectives by taking relevant courses in other departments. Most courses take place in Spanish, and students have the opportunity to enroll in Spanish language courses at the intermediate or higher levels.

The Department of Hispanic Studies offers a standard concentration program in Hispanic Studies with a track in Hispanic Language, Literature and Culture. This program provides students with a comprehensive view of Hispanic (Spain and Latin America) language, literature and culture. Both introductory and upper-level courses offer opportunities to explore a particular author, genre, period, or special topic, and to learn and use diverse analytical approaches. The overall requirement is a minimum of ten courses.

Prerequisite
HISP 0600 Advanced Spanish II (or placement)

Required courses
HISP 0730 Early and Contemporary Writers of Spanish: America 1

<table>
<thead>
<tr>
<th>Total Credits</th>
<th>11</th>
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HISP 0740 Intensive Survey of Spanish Literature 1 1

Select one of the following:

- A course from the HISP 1900 series

<table>
<thead>
<tr>
<th>Elective courses</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISP 1990 Senior Conference (for students writing an honors thesis)</td>
<td>1</td>
</tr>
</tbody>
</table>

HISP 0600 A course from the HISP 1900 series 1

Total Credits

1. Introduces students to standards and methods of interpretation in the field, as well as to major works, genres, and movement in the literatures and cultures of both sides of the Atlantic.

2. Four of the 1000-level courses cover the principal areas of Hispanic Studies – from medieval and early modern works all the way to works in the twenty-first century. In consultation with the concentration advisor, students also choose from four 1000-level elective courses that best suit their specific needs and interests. Concentrators are reminded that courses from Comparative Literature, History and other disciplines may be applied toward the concentration in Hispanic Studies as long as they deal with Spanish or Latin American themes, or with questions or topics that are pertinent for the study of Peninsular or Latin American culture. Individual courses may be discussed with the Concentration Advisor on a case by case basis. Up to two courses from outside of Hispanic Studies may be counted toward the concentration.

As many as four courses taken abroad may be applied towards the concentration in Hispanic Studies. These courses must meet the requirements of the concentration and be approved by the Concentration Advisor (note that they must first be approved for Brown University credit.) If you are planning to fulfill concentration requirements with courses taken abroad, please keep the syllabi and work (exams, papers) for evaluation.

Honors

Students are normally required to have an A average in their concentration courses before being considered for the Honors Program. Those interested in writing a Senior Thesis should discuss this possibility with the instructor they want as their thesis advisor during the spring semester of their junior year. Applications are due by the third week of a student’s seventh semester at Brown.

History

History is the study of how societies and cultures across the world change over time. History concentrators learn to write and think critically, and to understand issues from a variety of perspectives. The department offers a wide variety of courses concerned with changes in human experience through time, ranging from classical Greek and Roman civilizations to the histories of Europe, the Americas, and Asia. While some courses explore special topics, others concentrate on the history of a particular country (e.g. Russia or France) or period of time (e.g. the Middle Ages or the Renaissance). By taking advantage of our diverse course offerings, students can engage in and develop broad perspectives on the past and the present.

1. Basic Requirement: A concentration in History consists of a minimum of ten semester-long courses; of these, at least eight (seven in the case of students who spend more than one semester at another institution; see "Transferring Courses" below) must be offered by the Brown University History Department, including cross-listed courses.

2. Introductory Courses: Students may count no more than two lecture surveys numbered 0520 or lower and only one HIST 0970 or HIST 0980 seminar toward the concentration requirements. It is recommended that concentrators in their first or second years take

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
a HIST 0970 series seminar or a HIST 0980 series seminar for a seminar-based introduction to historical reasoning, discussion, and writing.

3. **Field of Focus:** Upon declaring a concentration in History, students must define the area that will be the primary focus of their program. The primary field of focus must include a minimum of four courses. The field may be defined by geographical regions (see #4), by geographical units with thematic or chronological emphases, or by topic.

Students who choose a geographical focus must provide a thematic or chronological rationale for the coherence of courses with a broad chronological span. Students who are interested in a thematic or transnational focus (such as Science, Technology, Environment, and Medicine or the Ancient World) may include courses from different geographic areas. All students should consult a concentration advisor early in the process. All fields are subject to approval by the concentration advisor.

4. **Geographical Distribution:** Concentrators must distribute nine of the ten required courses as follows: four courses in the primary geographic area. Thereafter, five courses in two or more secondary areas, with a maximum of three in any of these areas. Comparative and transnational courses may count for the geographical requirement with the approval of the concentration advisor. The geographic areas are:

- Africa
- East Asia
- Europe
- Latin America and the Caribbean
- Middle East and South Asia
- North America

5. **Chronological Distribution:** All History Department courses are designated "P" for pre-modern, "M" for modern, and "E" for either pre-modern or modern. Concentrators must complete at least three courses in the pre-modern period and three courses in the modern periods. Two of the courses must be designated "P" and two must be designated "M." Courses designated "E" may fulfill the requirements for a third course in each category.

6. **Capstone Seminar:** All concentrators must complete at least one capstone seminar (HIST 1960 or HIST 1970 series seminar). These seminars are designed to serve as an intellectual culminating of the concentration. They provide students with an opportunity to delve deeply into a historical problem and to write a major research and/or analytical paper which serves as a capstone experience. Ideally, they will be taken in the field of focus and during the student's junior or senior year. Students considering writing a senior honors thesis are advised to take an advanced seminar in their junior year.

7. **Honors:** To be admitted to the honors program, students must have achieved two-thirds "quality grades" in History department courses. A "quality grade" is defined as a grade of "A" or a grade of "S" accompanied by a course performance report indicating a performance at the "A" standard. Honors is normally a three-semester process, with students taking HIST 1992, "History Honors Workshop for Prospective Thesis Writers," one semester and HIST 1993, "History Honors Workshop for Thesis Writers," for two semesters. Both classes will be offered every semester, so students may begin the process in either their 5th or 6th semester. HIST 1992 is strongly recommended but not required. The class may count as one of the 10 courses required for graduation in history. Students may be admitted into HIST 1993 in one of two ways:

2. By submitting a thesis prospectus of equivalent quality (A- or above) no later than the first day of the 7th semester. This method of entry into HIST 1993 is geared especially, but not limited to, students who have spent their junior year away from Brown. Students who take HIST 1992 in the 5th semester can finish the thesis in the 7th semester. Students who take HIST 1992 in the 6th semester will finish it in the 8th semester.

Students who contemplate enrolling in the honors program in History should consult the department website. They are also encouraged to meet with the Director of Undergraduate Studies, who serves as the honors advisor.

8. **Transferring Courses:** The History Department encourages students to take history courses at other institutions, either in the United States or abroad, as well as history-oriented courses in other departments and programs at Brown. Students may apply two courses taken in other departments/programs at Brown to the ten-course minimum for the History concentration. Students who spend one semester at another institution may apply to their concentration a maximum of two courses from other departments or institutions, and those who spend more than one semester at another institution may apply to their concentration a third course transferred from another institution. The total number of courses from other departments or institutions may not exceed three. Students wishing to apply such courses must present to their concentration advisor justification that those courses complement some aspect of their concentration. Courses from other Brown departments may not be applied toward the chronological distribution requirement; courses transferred from other institutions may be applied toward the chronological distribution requirement so long as they clearly are history courses.

It is normally expected that students will have declared their intention to concentrate in History and have their concentration programs approved before undertaking study elsewhere. Students taking courses in Brown-run programs abroad automatically receive University transfer credit, but concentration credit is granted only with the approval of a concentration advisor. Students taking courses in other foreign-study programs or at other universities in the United States must apply to the Transfer Credit Advisor. Final transfer and concentration credit will not be granted until the student successfully completes the course(s) and returns to Brown. Approval by the department advisor for transfer credit will be contingent on satisfactory course content and performance (to be demonstrated by documents such as a transcript showing the grade, syllabi, notes, papers, exams, etc.).

9. **Regular Consultation:** Students are strongly urged to consult regularly with their concentration advisor or a department advisor about their program. During the seventh semester, all students must meet with their concentration advisor for review and approval of their program.

**History of Art and Architecture**

The concentration in History of Art and Architecture introduces students to the history of art, architecture, and visual culture. Students in HIAA explore Western and non-Western regions ranging over a wide period of time (Ancient, Medieval, Islamic, East Asian, Latin American, Early Modern, Modern/Contemporary). Concentrators often focus on a particular period (e.g., ancient, modern architecture), a particular branch of the field (e.g., urbanism), or a methodology (e.g., semiotics, critical interpretation, archaeology), but students may choose to create their own program of study. Concentrators will receive essential training in perceptual, historical, and critical analysis. Concentrators often study abroad for first-hand knowledge of works of art and monuments as well as for exposure to foreign languages and cultures. Because foreign language skills are essential for pursuing art historical studies in a professional environment or in graduate school, HIAA requires two years of foreign language study. The concentration total ten courses (eleven for honors). There are no prerequisites, but our general survey in history of art and architecture HIAA 0010 is an excellent foundation for the concentration. Students may receive concentration credit for this course. Please remember that these figures are only the minimum requirements and that we expect concentrators to take more than just the minimum number of classes in the subject of their choice.

Students must demonstrate reading proficiency in another language, since foreign language skills are essential for pursuing art historical studies in a professional environment or graduate school. Students with
the Department of History of Art and Architecture. One of the seminars in the history of architecture and urbanism that are offered by urban studies. The concentration requires four lecture courses and two seminars that also count towards a second concentration. No concentration credit for language classes.

Courses are taught on three levels. HIAA 0010 - HIAA 0940 are lecture courses meeting for three to four hours a week of lectures and discussion. HIAA 0020 - HIAA 1890 are seminars dealing with specific problems or issues in, art, architecture and theory and are designed for concentrators or otherwise well-prepared students. Courses with numbers above 2000 are graduate courses, which can, in exceptional cases, be opened up to particularly qualified seniors.

The core courses of four lecture classes and two seminars have to be taken in the department without exception. Those classes cannot be replaced with classes taken in other departments or universities.

Enrollment in seminar courses requires permission of the instructor.

Requirements

The concentration consists of ten courses (eleven for honors):

• 4 general lecture core courses. (HIAA 0020 - HIAA 0940) distributed between 3 of the 7 available areas of the discipline. (Ancient / Medieval / Islamic / East Asian / Latin American / Early Modern (ca. 1400-1800) / Modern, Contemporary)

• 2 seminar core courses (numbered between HIAA 1040 and HIAA 1890)

• 4 courses that can include other courses taught in the department and cross-listed courses elsewhere. HIAA 0010 will count as 1 of these courses, but will not count as 1 of the 4 core lecture classes. Students are encouraged to take 1 studio class as part of these 4 courses.

• The 6 core lecture courses and seminars have to be taken in the department and can NOT be replaced with an independent study/honors thesis/classes taken in other departments, universities, or high schools.

• Language requirement: (A recent placement test for a 400 level reading capacity, or passing of a 400 level language class has to be provided and will become part of the record.)

• Maximum 2 outside credits for courses taken at other universities (transfer credits or from study abroad programs), or courses that also count towards a second concentration. No concentration credit for High School AP, Subsidiary AP, A level etc. courses. No concentration credit for language classes.

Architectural Studies Track

The Architectural Studies concentration track within the Department of History of Art and Architecture blends a variety of disciplines toward the study of buildings and the built environment. The concentration prepares students for the continued study of architecture and the history of architecture in graduate school as well as careers in related areas such as urban studies. The concentration requires four lecture courses and two seminars in the history of architecture and urbanism that are offered by the Department of History of Art and Architecture. One of the seminars is a project seminar, taken in junior or senior year, and is designed as a capstone experience for the Architectural Studies concentrator. Courses that may be counted toward the concentration are listed with an “A” at the end of their descriptions in the Course Announcement Bulletin.

Because the architectural studies program was especially designed for students wishing to gain greater experience in the practical skills necessary for a career in architecture or a related field, concentrators are required to take a course in design from the Visual Arts Department, the Rhode Island School of Design or an introduction to architectural design, theatre set design at Brown University or the Harvard GSD’s summer school or similar six week+ courses in drafting or design instruction.

• Students will be able and are encouraged to take cross listed pertinent courses from such departments or programs as American Civilization, Center for Old World Archaeology and Art, Engineering, Mathematics, History, Modern Culture and Media, Urban Studies, and Visual Art, and Engineering, in addition to those offered by the Department.

• They can receive concentration credit for a maximum of two of these courses. Study abroad can be a valuable enrichment of the academic work available on campus, in that it offers opportunities for first-hand knowledge of architecture and the built environment as well as providing exposure to foreign languages and cultures. Study abroad should be planned in consultation with the concentration advisor in order to make sure that foreign course work will relate meaningfully to the concentrator’s program of study. Only two courses taken outside the department may count for concentration credit (including courses taken abroad and at other institutions in the United States). These credits will be counted as lecture courses, not seminars.

The equivalent of two years of foreign language study are required for concentrators, in order to read scholarship in at least one other language and to sensibly interact with an architectural culture other than your own. Students with previous language experience will be asked to take a placement test and demonstrate a 400 level reading ability.

Requirements:

• Four lecture courses distributed over three areas in architectural history (numbered between HIAA 0020 and HIAA 0940 and marked with an A) from the following areas: Ancient / Medieval / Islamic / East Asian / Latin American / Early Modern (ca. 1400-1800) Modern / Contemporary)

• One seminar or independent study in architectural history (numbered between HIAA 1100 and HIAA 1890 and marked with an A).

• The project seminar (HIAA 1910A-1910F or acceptable substitute to be chosen in discussion with the concentration advisor) is required of all concentrators and is taken in junior or senior year. Priority is given to architectural studies concentrators. In years when no project seminar is offered, any seminar that qualifies for architectural studies can become the starting point for a senior project.

• The two above seminars can NOT be replaced with an independent study/honors thesis/classes taken in other departments or universities.

• One studio art course in design (at Brown, RISD, Harvard Career Discovery and similar 6 week + summer courses)

• Three additional courses. These can include other courses taught in the department (including HIAA 0010) and cross-listed courses in another department that are pertinent to architectural studies. They also include a select number of non-cross listed courses that are approved by the concentration advisor. These include (but are not limited to HIAA 1910A-1910F and MATH 0100, PHYS 0030 and PHYS 0040, ENGN 0030, urban studies and engineering courses, and scenic design and technical production (Department of Theatre Arts and Performance Studies)

• Language requirement (A recent placement test for a 400 level reading capacity, or passing of a 400 level language class.)

• Maximum two outside credits for courses taken at other universities (transfer credits or from study abroad programs), or courses that also count towards a second concentration. No concentration credit for High School AP, Subsidiary AP, A level etc. courses. No concentration credit for language classes.

It is expected that concentrators will wish to focus on a particular period (e.g. ancient, modern architecture), a particular branch of the field (e.g. urbanism), or a methodology (e.g. semiotics, critical interpretation,
archaeology). Students are encouraged to formulate their own coherent program of study.

Honors
The Honors program in History of Art & Architecture and Architectural Studies will be administered as follows: accepted students will sign up for HIAA 1990 in the Fall and in the Spring. In the Fall, students will meet regularly with the whole Honors group and HAA faculty to discuss methodology and general research and writing questions. In the Spring, students will continue to meet to present their research in progress to each other for comment and feedback. They will also be meeting regularly with their advisors and second readers throughout the year. Finished drafts of the thesis (which will generally be no more than 30-35 pages in length (exceptions to be determined in consultation with the instructor), not counting bibliography and visual materials) will be due to the advisor and second reader on April 1 of the Spring semester. Comments will be returned to the students for final corrections at that point. There will be a public presentation of the Honors work at the end of the Spring semester.

Students wishing to write an honors thesis should have an A average in the concentration. It is advisable for them to have taken at least one seminar in the department and written a research paper before choosing to undertake a thesis. While acceptance into the Honors program depends on the persuasiveness of the thesis topic as well as the number of students applying, students may refine their proposals by speaking in advance with potential advisors. No honors student may take more than four classes either semester of their senior year--HIAA 1990 being considered one of your four classes. Students who are expecting to graduate in the middle of the year are encouraged to discuss a different capstone project with individual advisors or the concentration advisor.

Honors Application Process
Towards the end of the Spring semester all concentrators will be notified via the DUG Listserve that the application process is open. In order to apply to the Honors program each student should write up a proposal of no more than two double-spaced pages stating the topic (subject and argument) of the research to be undertaken as clearly as possible, along with a one-page bibliography of the most relevant books and major articles to be consulted for the project. This three page application should be submitted, along with a résumé and a printout of the student’s most recent available transcript and submitted to the department with a short cover letter stating who you feel the most appropriate advisor and second readers are for the thesis and why, and what your preparation is for this project. Clarity and brevity are considered persuasive virtues in this process. Applicants will be notified about the success of their applications at the end of the Spring semester.

Capstone Project
Those students who are not enrolled in the honors program are encouraged to develop one of their seminar papers into a capstone project, in consultation with the instructor. This paper can contain additional research, the application of the research to a catalog or website project etc.

While capstone projects will not be mandatory, they will be highly recommended. Capstones can include honors theses, UTRA’s, undergraduate TA-ships, internships, perfecting a seminar paper, GIS, GILP, etc. The capstone and any related course of study, including internships, must be approved and overseen by a faculty sponsor.

Self-Assessment
All concentrators are required to write an essay when they file for the concentration that lays out what they expect to gain from the course of study they propose. All second semester seniors will be required to write a final essay that takes measure of what they have learned from the concentration, including their capstone and other experiences relating to their study of the history of art and architecture. For students doing a capstone, their capstone director will read this essay. A department subcommittee will read essays written by students not electing to do a capstone. The self-assessment should be turned in with a revised list of courses actually taken and the final paperwork for concentration approval.

Attendance at lecture events and conferences in the HIAA department is strongly encouraged.

Independent Concentration

Although Brown offers a wide range of concentration programs across its 44 departments, a small number of students have academic interests that fall beyond the scope of these offerings. Brown allows such students to design their own concentrations through the Independent Concentration (IC) program. The IC program is for exceptionally dedicated students who are willing to spend extra time and effort creating a new concentration, representing a coherent field of study that Brown simply does not offer. Such fields may include emerging topics, such as "sustainable technology," or broader interdisciplinary areas, such as "Southern Studies." As of 2010, the Independent Concentration also includes some already approved (though rarely selected) concentration offerings. Students wishing to declare one of these established "tracks" need to work with the relevant concentration advisors. Students interested in pursuing an Independent Concentration are strongly encouraged to speak with the Curricular Resource Center (http://brown.edu/Administration/Dean_of_the_College/crc)’s IC Coordinator and with the IC Dean (Dean Rodriguez) and to review previous proposals in the CRC’s library.

Independent concentration proposals are reviewed and approved by the College Curriculum Council.

Pre-Approved Tracks: If the track is jointly offered it requires sign off from both departments. Prospective concentrators should complete the declaration process in ASK by selecting Independent Concentration, followed by the appropriate track and track advisor.

Modern Culture and Media-French Track
This track is offered jointly by the Department of French Studies and the Department of Modern Culture and Media. It is intended for students who wish to receive special preparation in French language and literature, with emphasis on contemporary semiotic theory, and those students whose primary interest is in theory and who wish to strengthen their knowledge of French language, literature, and culture. In addition to a Senior Thesis, students will take five courses in French and five in Modern Culture and Media. Students wishing to declare this concentration must select an advisor from each of the two sponsoring departments.

Required courses:
Select two of the following:  
2
FREN 0500 Writing and Speaking French I  
FREN 0520 Introduction to Literary Experience  
FREN 0600 Writing and Speaking French II  
A course from the FREN 1510 series

Three upper level courses in French literature, language and civilization.  
3
MCM 0110 Introduction to Modern Culture and Media  
Two or three additional courses in semiotic theory  
2-3
One or two courses in semiotic production  
1-2
Total Credits  
9-11

Honors: Students who qualify for Honors in the Independent Concentration, Modern Culture and Media-French track are eligible to apply to do an Honors project or thesis. Applications will be screened by both MCM and French Studies. (Application forms should be submitted by prospective honors students in the beginning of the 7th semester. They are available in the MCM office.) If approved, a student must then register for MCM 1990 or FREN 1990, a one-credit thesis course in which they complete the Honors project.

Modern Culture and Media-German Track
This track is offered jointly by the Department of German Studies and the Department of Modern Culture and Media. It offers interested students an opportunity to explore the phenomenon of “Germany” using the approaches of cultural theory. Students will take a number of required courses through which they learn the basic theories and approaches to issues of language and meaning, subjectivity and identity, ideology and...
consciousness, gender and sexuality, and theories of narrativity. Other courses offer the student an overview of the German textual traditions in literature, philosophy, music, film, and the fine arts. German language proficiency is expected of all participants in the program and may be gained by a variety of approaches available within the German Studies Department. Overseas study at Berlin’s Humboldt University or in special cases at an equivalent institution is considered a normal part of this joint concentration. All students will be required to complete a final project.

Requirements in addition to Senior Thesis:
Twelve courses are required.

Prerequisites:
Select two of the following:

- MCM 0110 Introduction to Modern Culture and Media
- MCM 0230 Digital Media
- MCM 0240 Television Studies
- MCM 0250 Visuality and Visual Theories
- MCM 0260 Cinematic Coding and Narrativity
- MCM 1110 The Theory of the Sign

A course from the GRMN 0900 series

Requirements:
Two courses in German Studies at the 1000-level with topics relevant to the focus area.

GRMN 1990 Senior Conference 1
or MCM 1990 Honors Thesis/Project in Modern Culture and Media

Select six of the following:

- HIST 1370 Germany, 1914 to the Present (strongly recommended)
- COLT 1210 Introduction to the Theory of Literature (strongly recommended)
- HIAA 0850 Modern Architecture

A course from the GRMN 1440 series: Studies in Literary Genre
A course from the GRMN 1450 series: Seminars in German Literature
A course from the MCM 1200 series: Special Topics in Modern Culture and Media
A course from the MCM 1500 series: Senior Seminars in Modern Culture and Media

PHIL 1660 Metaphysics

Total Credits 12

Students are encouraged to examine the course offerings carefully in consultation with their advisors to select courses that augment their concentration and, in particular, inform their final projects. In addition, students will normally complete two to four of those electives while studying in Berlin or at another location approved by the concentration advisor.

Students who are unable to study in Germany will be required to demonstrate reading knowledge of German.

Students are encouraged to consult with the concentration advisors for German Studies and Modern Culture and Media as early as possible in order to begin planning their course work sequences and their final project.

Modern Culture and Media-Italian Track
This track is offered jointly by the Italian Studies Department and the Department of Modern Culture and Media. The program includes 11 courses.

Requirements in addition to Senior Thesis:
Six courses from the Italian Studies Department

ITAL 0950 Introduction to Italian Cinema: Italian Film and History 1
A course from the ITAL 1000 series: Studies in Contemporary Italian Culture 1
A course from the ITAL 1060 series: Realism and Utopia in Italian Film 1

Select three of the following:

ITAL 1340 Garibaldi Panorama: the Invention of a Hero (from pre-cinema to digital)
A course from the ITAL 1350 series: Contemporary Italian Literature
ITAL 1390 Modern Italy
A course from the ITAL 1400 series: Special Topics in Italian Studies

Five courses from the Modern Culture and Media Department
Any three of the following:

- MCM 0110 Introduction to Modern Culture and Media
- MCM 0230 Digital Media
- MCM 0240 Television Studies
- MCM 0250 Visuality and Visual Theories
- MCM 0260 Cinematic Coding and Narrativity
- MCM 1110 The Theory of the Sign

At least one course from the MCM 1200 series 1
At least one course from the MCM 1500 series 1

Total Credits 11

Students are encouraged to consider study at the University of Bologna through the Brown Program in Bologna, though this is by no means a requirement for fulfillment of the program. Courses taken at the University of Bologna may substitute for Italian Studies and MCM courses (no more than 2 from either department) at the discretion of the student’s advisors.

Honors: Honors require a thesis and will normally be undertaken by signaling intent during the junior year.

Statistics Track
Statistics has a theoretical core surrounded by a large number of domains of application in diverse fields, including economics, psychology, biology and medicine, sociology, population sciences, government, anthropology, astronomy, physics, chemistry, geology, engineering, and computer science. At Brown, graduate training in Biostatistics is available in the Department of Biostatistics and in Mathematical Statistics in the Division of Applied Mathematics. In addition, several other departments are offering introductory and even advanced courses in statistical methodology, including the Departments of Economics, Sociology, Cognitive, Linguistic and Psychological Sciences, Political Science and Computer Science. The Undergraduate program in Statistics, established in 1997, is an interdepartmental program, administered by the Department of Biostatistics and leading to the Sc.B. degree. The program is constructed on several premises: that statistics is a scientific discipline in its own right, with its characteristic methodology and body of knowledge; that it is essentially concerned with the art and science of the analysis of data; and that it is best taught in conjunction with specific substantive applications. To this end, the concentration is designed to provide a foundation of basic concepts and methodology, requiring students to take core courses in the discipline itself, and to expose students to a cross-section of statistical applications, through courses (of their own selection and subject to approval) in the social, biological, and natural sciences. In a senior honors thesis, each student will be required to carry out a major project of statistical data analysis in one of these disciplines. The program prepares students for careers in industry and government, for graduate study in statistics or biostatistics and other sciences, as well as for professional study in law, medicine, business, or public administration.

Requirements in addition to Senior Thesis:
The program begins with a foundation in mathematics and computing, combined with an elementary introduction to statistical thinking and practice. A set of three core courses builds on this foundation by providing a comprehensive account of the fundamentals of statistical theory and data analysis. At this point, the students in the concentration are ready to delve into more advanced material covering important areas of statistical methodology. In addition to formal coursework, students will have opportunities to acquire practical experience in study design, data management, and statistical analysis by working as undergraduate research assistants in projects in one of the participating academic departments or research centers at Brown.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The program requires twelve one-semester courses and participation in the senior seminar. The required courses are as follows:

**Foundations courses:**

**Mathematics**
Three courses, including courses in multivariate calculus and linear algebra 3

**Computing**
APMA 0160 Introduction to Scientific Computing 1

**Introduction to statistical thinking and practice**
Select one of the following: 1
SOC 1100 Introductory Statistics for Social Research
ECON 1620 Introduction to Econometrics
APMA 0650 Essential Statistics

**Core Courses in Theory and Data Analysis**
PHP 2510 Principles of Biostatistics and Data Analysis 1

Choose one of the following series: 2
APMA 1650 Statistical Inference I
& APMA 1660 and Statistical Inference II
MATH 1610 Probability
& MATH 1620 and Mathematical Statistics

**Advanced Courses in Statistical Methods**
APMA 1690 Computational Probability and Statistics 1
PHP 2511 Applied Regression Analysis 1

Two electives from the following courses: 2

**Social Sciences:**
ECON 1630 Econometrics I
ECON 2030 Introduction to Econometrics I
ECON 2040 Econometric Methods
ECON 2630 Econometric Theory
ECON 2640 Microeconomics
SOC 2010 Multivariate Statistical Methods I
SOC 2220 Advanced Quantitative Methods of Sociology Analysis
SOC 2230 Techniques of Demographic Analysis
SOC 2960G Spatial Data Analysis Techniques in the Social Sciences

**Biostatistics:**
APMA 1710 Information Theory
APMA 2810R Computational Biology Methods for Gene/Protein Networks and Structural Proteomics
BIOL 1420 Experimental Design in Ecology
PHP 2620 Statistical Methods in Bioinformatics, I
PHP 2200 Intermediate Methods in Epidemiologic Research
PHP 2520 Statistical Inference I
PHP 2030 Clinical Trials Methodology
PHP 2603 Analysis of Longitudinal Data
PHP 2530 Bayesian Statistical Methods

Total Credits 12

Prospective students will be able to obtain Advanced Placement credit for the requirements in mathematics, computing, and introductory statistics. Students who have already completed an introductory course in statistics will be granted permission to proceed to Level II core courses if they meet the prerequisites in mathematics and computing.

**Honors:** Honors work in the Independent Concentration, Statistics track requires the completion of a senior thesis and a superior record in the program.

The program is administered by the Department of Biostatistics, located at 121 South Main Street, 7th floor.

For additional information please contact: Roee Gutman, Box G-S-121-7; Telephone: 401-863-2682; Fax: 401-863-9182; e-mail: Roee Gutman

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**International Relations**

The IR concentration is one of the largest concentrations at Brown. The objective of the International Relations concentration is to foster creative thinking about pressing global problems and to equip students with the analytic tools, language expertise, and cross-cultural understanding to guide them in that process. To this end, the concentration draws on numerous departments including political science, history, economics, anthropology, sociology, psychology, religious studies, and area studies. The IR concentration is organized around a multidisciplinary core and two sub-themes: security and society, and political economy and society. It has a three-year language requirement that must be linked to the students selected region of the world. All concentrators are required to undertake a capstone project using research in a second language.

**Requirements**

The IR concentration requires 14 courses and the equivalent of 3 years of study in a second language.

**Core Courses**

- ANTH 0110 Anthropology and Global Social Problems: Movements, Mobilities, Migration
- ECON 0110 Principles of Economics
- HIST 1900 American Empire Since 1890
- POLS 0400 Introduction to International Politics
- SOC 1620 Globalization and Social Conflict

**Track Requirements (five courses from ONE track distributed between the sub-themes):**

**Security and Society:**

- ANTH 1232 War and Society
- ANTH 1411 Nations within States
- HIST 1350 Modern Genocide and Other Crimes against Humanity
- INTL 1280 Global Security After the Cold War
- POLS 1560 American Foreign Policy

**Political Economy and Society**

- ANTH 1233 Ethnographies of Global Connection: Politics, Culture and International Relations
- INTL 1400 Religion and Global Politics
- INTL 1800N Global Media: History, Theory, Production
- POLS 1380 Ethnic Politics and Conflict
- POLS 1500 The International Law and Politics of Human Rights
- POLS 1821M War in Film and Literature
- SOC 1270 Race, Class, and Ethnicity in the Modern World

**Regional Focus**

- ANTH 0450 Two Billion Cars: Humans, Markets, Cultures, and the Automobile
- ANTH 1324 Money, Work, and Power: Culture and Economics
- INTL 1801M Globalization and the Rise of Asia
- POLS 1020 Politics of the Illicit Global Economy
- POLS 1420 Money and Power in the International Political Economy

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For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
taught in Italian. Any student returning from the Bologna program must pursue capstone research, writing, or multimedia projects. Upon return from Bologna, the student should enroll in at least one advanced course offered by the department, preferably a course or performance. All senior concentrators must be satisfied with up to Italian 0600 (or the equivalent in Hebrew) in order to meet the language requirement. Italian Studies at Brown is an interdisciplinary concentration and constitutes a culminating experience in the Bologna Program. ITAL 0600 is the first language course that counts toward the concentration requirements.

ITAL 0600. Required for all students, preferably to be taken during their freshman or sophomore years. Advanced Placement credit does not count toward the concentration. This is only a subset of the more comprehensive list of applicable courses. Both courses must be on the same area. Content must build on track of study. Students are required to link these with language study. Prior to 7th semester. Quantitative or qualitative course from approved list. Must be taken senior year. Must incorporate language skills. Detailed lists of courses that satisfy these requirements may be obtained from the IR program website: www.watsoninstitute.org/IR (http://www.watsoninstitute.org/IR).

The program has a director, an associate director/concentration advisor, and a faculty advisor for each track to assist students in planning their academic programs.

Italian Studies

Inherently interdisciplinary, the Italian Studies concentration allows students to strengthen their language skills in Italian and deepen their knowledge of Italian literature, history, art, and culture. Most concentrators have some background in Italian language. However, it is possible to concentrate in Italian studies without having studied the language before coming to Brown, although doing so requires an early start. After fulfilling the language requirement by completing up to Italian 0600 (or the equivalent), students enroll in a variety of advanced courses, reflecting the interdisciplinary nature of the concentration. Junior concentrators often study abroad in the Brown Program in Bologna. All senior concentrators participate in the senior conference by delivering brief presentations on academic topics of their choice in Italian Studies. Concentrators might also pursue capstone research, writing, or multimedia projects.

The concentration requires that students demonstrate proficiency in the Italian language by completing up to ITAL 0600 (or the equivalent in Bologna). ITAL 0600 is the first language course that counts toward the eight required courses for the concentration. At least four of the eight courses should be taken in Italian.

Italian Studies Concentration and the Brown Program in Bologna

Concentrators who enroll in the Brown in Bologna program should fulfill the requirements according to the following sequence; prior to departure, the student should complete the level of Italian language study required (ITAL 0300) and enroll in one of the courses in the four distribution areas -- Italian literature; Italian History; history of Italian art and architecture; film or performance. Upon return from Bologna, the student should enroll in at least one advanced course offered by the department, preferably a course taught in Italian. Any student returning from the Bologna program must enroll in a course above the language level of ITAL 0600. Credits toward the Italian Studies concentration may also be transferred from the Brown in Bologna Program. Concentrators may count three courses per semester toward the concentration (or six courses total for the year), although the course content must focus on Italy if the student wishes to count the course toward the concentration requirements. Concentrators should consult the concentration advisor to know which courses may or may not transfer as credits toward the concentration.

Honors in Italian Studies

Concentrators are encouraged to expand their understanding of Italian language, history, or culture through independent research that will result in a thesis, a translation, or a multimedia project, developed in consultation with the undergraduate concentration advisor and the individual faculty member who will advise the student’s project. The Honors thesis in Italian Studies is a two-semester thesis. Students who intend to complete an honors project should enroll for the first semester in ITAL 1920 (Independent Study), and have their project approved by their advisor by October 15. During the second semester, honors students enroll in ITAL 1990 and continue to work with their advisor to complete the project. ITAL 1990 does not count as one of the eight courses required for the concentration.

CAPSTONE experiences in Italian Studies

A Capstone experiences in Italian Studies would consist of a course or project that a student, in consultation with the undergraduate advisor, feels would integrate the various intellectual engagements of this interdisciplinary concentration, and constitute a culminating experience in Italian Studies at Brown. Such experiences are strongly encouraged, and should be aligned through conversations with the concentration advisor or a professor in the department. This could include the Brown Program in Bologna, typically taken in the Junior year, and/or the honors thesis in the senior year. However, students may also apply early in the Fall or Spring semester of their senior year for permission to designate one of their courses (1000-level or above) a Capstone course. In consultation with the professor, students in Capstone courses complete an independent research, writing, or multimedia project that is well beyond the required assignment for the course. ITAL 1920 (Independent Study) may also be designated a Capstone course with the permission of the instructor.

Judaic Studies

Judaic Studies is an interdisciplinary concentration devoted to the study of Jews and Judaism in all historical and geographic contexts. Students blend humanistic and social scientific approaches to learning by taking courses in history, language (Hebrew, Aramaic), literature, religious studies, and sociology. Concentrators explore how distinct scholarly disciplines approach the study of Jews and Judaism in different chronological settings ranging from biblical times to the present. By taking an interdisciplinary approach, students can explore the historical, religious, literary, philosophical, sociological and political experiences of the Jews. They also learn how scholars of diverse academic disciplines frame and answer questions, strengthening their knowledge of different perspectives and methodologies in the field. Concentrators must define one area of focus and fulfill a year of course work in Hebrew, one of the strands that unifies the history of Judaism from ancient to modern times.

Required Coursework

• Six topical courses in Judaic Studies
• JUDS 0110 and JUDS 0120 Introduction to Modern Hebrew
• Two additional JUDS courses either topical or language

Topical courses (non-language courses)

• Upon declaring a concentration in Judaic studies, students must define the area of study that will be the primary focus of their program. The field may be defined as an historical period (ancient/modern), as a discipline (humanities/social science), or as a topic (religion, culture, history, language/literature, etc.). Students are expected to complete a minimum of four courses in their area of focus, but the final number will be finalized in discussion with the concentration advisor.

• Of the six required topical courses, four must be taken in the Judaic Studies Program at Brown.

• Of the six required topical courses, at least one should focus on the ancient period and one should focus on the modern period.

• Of the six required topical courses, at least one should be a 1000-level seminar or another advanced course (including independent study) approved by the concentration advisor in the student’s area of focus.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
• All students are required to designate an advanced departmental course as the capstone for his or her concentration. Within the frame of this capstone course, the concentrator will write a final course paper, which displays the student’s concentration focus, addressing in an appropriate way the theoretical and interpretive issues of the concentration focus.
• In consultation with the concentration advisor, students may petition for the right to apply up to two courses taken in other departments/programs at Brown to the ten required for the Latin American and Caribbean Studies concentration. These courses must relate directly to the student’s focus and provide a comparison of a Judaic topic with some other relevant topic.
• Students who study at other institutions, either in the United States or abroad, may apply a maximum of two topical courses to their concentration in Judaic Studies. Hebrew language courses may also be transferred.
• In consultation with the concentration advisor, students may apply up to two advanced language courses (JUDS 0150 or JUDS 0300) to the six required topical courses for the concentration.

Language Courses
• One full year of Elementary Hebrew. Generally, this requirement will consist of two courses in Modern Hebrew (JUDS 0110 and JUDS 0120) or the equivalent as determined by a proficiency examination. Students who pass the proficiency exam are encouraged, but are not required, to continue the study of Hebrew (for example, Intermediate Hebrew, JUDS 0130 and JUDS 0140; Writing and Speaking Hebrew, JUDS 0150).
• Fulfillment of the Hebrew requirement through examination does not reduce the requirement to take ten courses for the concentration.

Honors Thesis
A candidate for honors in Judaic Studies will write a thesis in the senior year. In order to be considered a candidate for honors, students will be expected to maintain an outstanding record (at least A-) in Judaic Studies courses. The honors thesis, which fulfills the capstone requirement, will normally be written as a two-semester individual study project (JUDS 1970). At the end of the senior year, the thesis advisor (a faculty member of the Judaic Studies Program), and a second reader, chosen by the thesis advisor in consultation with the student, will evaluate the thesis, and the Judaic Studies faculty will determine if it is worthy of honors in Judaic Studies. Students interested in honors should approach a potential advisor by the spring registration period of their junior year. When taken as preparation of the honors thesis, JUDS 1970 count towards the ten required courses in the concentration.

Further Information
Students who are interested in further information about the concentration should contact the Judaic Studies Office at 163 George Street to make an appointment with the undergraduate concentration advisor. [Tel: 863-3912 or Judaic@brown.edu]

Latin American and Caribbean Studies
Latin American and Caribbean Studies is an interdisciplinary concentration designed to help students develop an understanding of culture, history, and contemporary issues in the region. Concentrators study the social, political, economic, literary, and cultural features that comprise contemporary Latin American and Caribbean societies. Concentration requirements cover four general areas: language, area studies, research, and professional experience. Concentrators develop competency in Spanish or Portuguese and many concentrators also study in Latin America for one or both semesters during the junior year. An internship or volunteer work (required of all students) in Latin America or with a local organization that primarily serves Spanish or Portuguese speakers, puts students in direct contact with Latin Americans, and builds professional skills and experience.

Requirements are intentionally broad and flexible to accommodate the interests of students in understanding the diverse reality of Latin America and the Caribbean, yet the concentration also encourages focus. Concentration requirements cover four general areas: language and literature, area studies, independent research, and out of classroom experience.

Language
Basic competence in either Spanish or Portuguese is required. Each student must take either HISP 0100, HISP 0200, POBS 0110 or any more advanced Spanish or Portuguese language course. This requirement may be satisfied by examination, but the examination will not count as a course. No more than one advanced language course (not including literature courses) may be counted among the ten courses required for the concentration.

Literature
Some familiarity with the literature of the region is required. Each concentrator must take at least one of the following: HISP 0730, POBS 0610, or a 1000-level Spanish or Portuguese literature course dealing with Latin America.

Area Studies
6 courses: Two types of area-focused courses are required: (1) courses specifically designated "Latin American Studies" (LAST, not including LAST 1990- LAST 1991), and (2) courses in several departmental programs that demonstrate the ways in which various disciplines have contributed to our understanding of Latin America. Approved area studies courses for the concentration are listed in Appendix B of the Concentration Guide.

At least 2 disciplines (not including Latin American Studies) must be represented among the six area studies courses. Other 1000-level courses dealing with related subjects that are especially pertinent to the study of Latin America may be substituted with approval.

Senior Thesis or Project
2 courses: A Senior Thesis or Project is optional for concentrators. It includes course credit for a reading and research course (LAST 1990-LAST 1991). In order to integrate the diverse perspectives gained in courses and readings, seniors may elect to complete a Senior Thesis or Project under the direction of one faculty member. Seniors will also choose one additional faculty member to serve as a reader. The reader will receive a draft and a finished copy of the student’s thesis or project, which the reader will be responsible to grade. The reader may be involved in the earlier development of the thesis or project depending upon the agreement made by the student with the research advisor. The Senior Thesis or Project will normally consist of a major research paper. A student may, with prior permission of the Latin American and Caribbean Studies Concentration Advisor, present a film, videotape, museum exhibition, or other appropriate project, together with a paper that clearly demonstrates the academic relevance of the project. Only the Senior Thesis qualifies the student (along with a minimum B+ average) for Honors. The Senior Project is quite often of a more personal nature, such as observations on practice teaching or a survey of social resources on Latin America. Near the beginning of the seventh semester, students should submit to the concentration advisor a 5 to 8 page prospectus accompanied by the signature of one faculty member indicating that he or she is willing to serve as primary advisor on the project.

If a concentrator chooses to do neither a senior thesis nor a senior project, then a research paper must be written in an advanced undergraduate seminar (1000-level). The seminar must be among the approved area studies courses listed in Appendix B of the Latin American Studies Concentration Guide, and will count as one of the ten courses required for the concentration. Research papers will typically be 20-30 pages in length and must be approved by the Concentration Advisor. Students who choose this option do not take LAST 1990 or LAST 1991. The seminar counts as the research component of the program. The distribution requirements for this option are: 2 language courses, 7 area studies courses and 1 research course (i.e. the seminar for which the paper is written).
Internships/Community Service

The Concentration in Latin American and Caribbean Studies requires students to complete an internship or volunteer service work in Latin America or with a local organization that works primarily with Spanish or Portuguese speaking peoples. The Center maintains a database of local and international internship opportunities. Students are also strongly encouraged to consult with the Swearer Center for Public Service. Internships and community service work are available to Brown students who study abroad at the Brown programs in Mexico (Universidad de las Americas) and in Brazil (Catholic University of Rio de Janeiro). Examples of local service work performed by concentrators in previous years include: helping compile a Spanish language guide to welfare service agencies, developing a culturally appropriate adaptation of a health testing and education program, and ESL instruction to Latin American immigrants. Such extracurricular work can be rewarding in itself; in consultation with a faculty member, it can often be used to earn academic credit and furnish material for either a Senior Thesis or Project.

A minimum of one semester or a summer of internship or volunteer service work is required. Students need to submit an internship/service work proposal form to the Latin American and Caribbean Studies Concentration Advisor for approval prior to starting the internship or service work. Upon completion of the internship or service work, students are required to submit to the Concentration Advisor a brief summary report of their experience, which must be signed by the supervisor of the student’s internship or service work.

Honors

Qualified undergraduates may pursue work towards the B.A. with Honors. The requirements for graduation with Honors are the following:

1. Maintenance of at least a B+ average in the ten courses counting for the concentration.
2. Maintenance of at least a B+ average in all course work done for the B.A. at Brown.
3. Completion of a Senior Thesis approved by the primary advisor and reader as acceptable for Honors. The senior thesis should be "A" level work, although an "A" thesis does not automatically qualify for honors.

Prizes and Awards: Graduating seniors in Latin American Studies are eligible for an award administered by the concentration for outstanding Senior Thesis.

Foreign Study

Study abroad (normally in the junior year) is encouraged as an important part of the concentration. Interested students should begin early to prepare for such a venture. Popular programs with Latin American concentrators include Universidad de las Americas-Puebla, Mexico, and the Catholic University (PUC-Rio) of Rio de Janeiro, Brazil. Up to three courses taken abroad may be counted toward the ten courses required for the concentration. A list of Brown programs and approved non-Brown programs is available from the Office of International Programs (OIP) located in Rhode Island Hall. Feel free to consult the Latin American and Caribbean Studies concentration advisor about study abroad.

Linguistics

The concentration in linguistics is designed both for students interested in the discipline itself and for those wishing to use their understanding of linguistic structure to pursue other disciplines. Linguists are concerned with such issues as the commonalities of human languages, why languages change, how our linguistic abilities interact with our cognitive abilities, how language is learnable, and developing formal models of linguistic structure. Fields as diverse as anthropology, legal reasoning, language pathology, technical writing and editing, and Artificial Intelligence (AI) all rely heavily upon methods and models developed in linguistics. Required courses examine linguistic theory, phonology, syntax, and semantics, while electives may focus on computational, mathematical, or socio-linguistics, the philosophy of language, and biology and the evolution of language.

Requirements (10 courses)

<table>
<thead>
<tr>
<th>Prerequisite Course</th>
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<tbody>
<tr>
<td>CLPS 0030 Introduction to Linguistic Theory (formerly COGS 0410) (may be waived in special instances)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1310 Introduction to Phonological Theory (formerly COGS 1210)</td>
</tr>
<tr>
<td>CLPS 1330 Introduction to Syntax (formerly COGS 1310)</td>
</tr>
</tbody>
</table>

Select one of the following courses in phonetics, phonology, syntax, or semantics:

| CLPS 1340 Introduction to Semantics (formerly COGS 1110) |
| CLPS 1341 Lexical Semantics (formerly COGS 1120) |
| CLPS 1342 Formal Semantics (formerly COGS 1130) |
| CLPS 1320 The Production, Perception, and Analysis of Speech (formerly COGS 1230) |
| CLPS 1381 Topics in Phonetics and Phonology: Intonational Phonology |

Select one of the following courses in psycholinguistics:

| CLPS 1800 Language Processing (formerly COGS 1410) |
| CLPS 1810 Syntactic Theory and Syntactic Processing (formerly COGS 1420) |
| CLPS 1650 Child Language Acquisition (formerly COGS 1430) |
| CLPS 1890 Laboratory in Psycholinguistics (formerly COGS 1450) |
| CLPS 1820 Language and the Brain (formerly COGS 1480) |
| CLPS 1385 Topics in Language Acquisition: Language Acquisition and Cognitive Development |
| CLPS 1389 Topics in Language Processing (formerly COGS 1840) |

Electives (select five):

| CLPS 1340 Introduction to Semantics (formerly COGS 1110) |
| CLPS 1341 Lexical Semantics (formerly COGS 1120) |
| CLPS 1342 Formal Semantics (formerly COGS 1130) |
| CLPS 1320 The Production, Perception, and Analysis of Speech (formerly COGS 1230) |
| CLPS 1381 Topics in Phonetics and Phonology: Intonational Phonology |
| CLPS 1800 Language Processing (formerly COGS 1410) |
| CLPS 1810 Syntactic Theory and Syntactic Processing (formerly COGS 1420) |
| CLPS 1650 Child Language Acquisition (formerly COGS 1430) |
| CLPS 1890 Laboratory in Psycholinguistics (formerly COGS 1450) |
| CLPS 1820 Language and the Brain (formerly COGS 1480) |
| CLPS 1385 Topics in Language Acquisition: Language Acquisition and Cognitive Development |
| CLPS 1389 Topics in Language Processing (formerly COGS 1840) |
| CLPS 0800 Language and the Mind (formerly COGS 0450) |
| CSCI 1460 Introduction to Computational Linguistics |
| ANTH 1800 Sociolinguistics, Discourse and Dialogue |
| EGYT 2310 History of the Ancient Egyptian Language |
| ENGL 1210 History of the English Language |
| HISP 1210C History of the Spanish Language |
| PHIL 1760 Philosophy of Language |
| SLAV 1300 Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe) |

Total Credits 10
1. It is recommended that students take CLPS 1310 and CLPS 1330 before higher level courses.

2. Only 2 may be below 1000-level courses. The listings here are not exclusive of the possible electives; students should consult with the concentration advisor about the appropriateness of other courses.

Degrees with Honors (12 Courses)
Candidates for Honors in Linguistics will take a minimum of 10 courses for the concentration which will consist of all requirements for the standard program plus 2 additional courses in Linguistics or related disciplines. One of these courses may be an independent study project upon which the thesis is based. Honors candidates should formalize their projects in consultation with their advisors by the end of Semester 6.

Although no specific grade-point average has been set for acceptance into the Honors Program, only students with a good record and an advisor willing to work with them will be allowed into the Honors Program.

Independent Study
Independent study is encouraged for the A.B. degree. Students should sign up for CLPS 1970 with a faculty advisor who is a member of the Department of Cognitive and Linguistic Sciences. Arrangements should be made in Semester 6 for students expecting to do independent study during Semesters 7 and/or 8.

Comments:
Foreign language courses will generally not count towards the concentration requirements, except those which focus on the structure or history of the language. Students are, however, advised to gain familiarity with a foreign language, and are encouraged to take at least one course which deals with the structure of a language other than English.

It is strongly recommended that students take CLPS 1310 and CLPS 1330 before Semester 7.

Literary Arts
Browns Program in Literary Arts provides a home for innovative writers of fiction, poetry, playwriting, screenwriting, literary translation, electronic writing and mixed media. The concentration allows student writers to develop their skills in one or more genres while deepening their understanding of the craft of writing. Many courses in this concentration require a writing sample; students should consult a concentration advisor or the concentration website for strategies on getting into the appropriate course(s).

Candidates for the Bachelor of Arts degree with concentration in Literary Arts will be expected to complete the following work course:

1. At least four creative writing workshops from among the following series: LITR 0100, LITR 0210, LITR 0310, LITR 0610, LITR 1010, LITR 1110, and LITR 1150. At least two genres must be covered within the four courses taken. An independent study in literary arts (LITR 1310) may count toward the workshop requirement. Other writing-intensive courses may also count, at the discretion of the advisor.

2. Six elective reading and research in literary arts courses, which must include:
   • a course in literary theory or the history of literary criticism
   • a course that primarily covers readings and research in literary arts created before 1800
   • a course that primarily covers readings and research in literary arts created between 1800 and 1900
   • a course that primarily covers readings and research in literary arts created after 1900

   These courses, selected in consultation with a concentration advisor, may come from (but are not limited to) the following departments: Africana Studies, American Civilization, Classics, Comparative Literature, East Asian Studies, Egyptology, French Studies, German Studies, Hispanic Studies, Italian Studies, Judaic Studies, Linguistics, Literatures and Cultures in English, Middle East Studies, Modern Culture and Media, Music, Portuguese and Brazilian Studies, Slavic Studies, South Asian Studies, Theatre, Speech and Dance, Visual Arts. With approval from the concentration advisor, courses covering pre-20th century time periods may be distributed in a variant manner, so long as they cover two distinct literary time periods that precede the 20th century.

3. Among the ten required courses, at least four must be at the 1000-level or above. No more than a total of four classes (workshops or reading/research courses) may be taken outside of the Literary Arts Department at Brown (whether at another institution or within another department’s curriculum). No more than two of the ten required courses for the concentration may also count toward fulfilling a second concentration.

4. During the senior year, all students must take at least one course within the Literary Arts course offerings (courses with LITR designation by the Registrar, or courses approved by the concentration advisor).

Honors in Creative Writing: Course requirements are the same as those for the regular concentration (four workshops, six elective literature-reading courses), with the following changes and additions: honors candidates must include two 1000-level workshops or independent studies among their courses; and complete a thesis. Students who are enrolled in or have completed at least one 1000-level workshop (or independent study) may submit honors applications to the Literary Arts Department from the first day of the fall semester to 20 September. Interested students should obtain information from the office of the Literary Arts Department.

Marine Biology
Marine biology encompasses the study of living organisms in the ocean or other marine or brackish bodies of water. Because marine organisms play an important role in sustaining life on earth, and because of the diverse habitats studied by marine biologists, concentrators must study broadly in the basic sciences and become familiar with the varied research techniques in the field. Consequently, students begin their learning with foundational courses in biology, mathematics, chemistry, and physics. Subsequent coursework in the concentration exposes students to a range of topics in biology (e.g., Invertebrate Zoology, Ecology, Physiology, Conservation) and courses in other sciences, including geological sciences, computer science, and engineering. Students are encouraged to spend a summer or semester conducting research at a field station. The field experience is a key feature of this program and provides scholarly interaction with leaders in the field so that students are mentored at the cutting edge.

Standard program for the Sc.B. degree

CHEM 0330 Equilibrium, Rate, and Structure (or equivalent) 1
PHYS 0030 Basic Physics (or equivalent) 1
PHYS 0040 Basic Physics (or equivalent) 1
MATH 0090 Introductory Calculus, Part I (or equivalent) 1
MATH 0100 Introductory Calculus, Part II (or equivalent) 1
Two additional courses in physics, chemistry, mathematics, applied mathematics, computer science, engineering, or geological sciences, as approved by advisor.

Select four of the following biology courses:

BIOL 0410 Invertebrate Zoology
BIOL 0420 Principles of Ecology
BIOL 0510 Introductory Microbiology
BIOL 0800 Principles of Physiology
BIOL 1180 Comparative Animal Physiology
BIOL 1440 Marine Biology
BIOL 1880 Comparative Biology of the Vertebrates

Select three additional biology courses, highly recommended are:

BIOL 0200 The Foundation of Living Systems
BIOL 0470 Genetics
BIOL 0480 Evolutionary Biology
BIOL 0500 Cell and Molecular Biology
BIOL 1180 Comparative Animal Physiology

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Mathematical Economics

The Mathematical Economics concentration is designed to give a background in economic theory plus the mathematical tools needed to analyze and develop additional theoretical constructions. The emphasis is on the abstract theory itself.

**Course Requirements:**

**Economics**

ECON 1310 Labor Economics

ECON 1210 Intermediate Macroeconomics

ECON 1630 Econometrics I

At least three other 1000-level economics courses, at least two must be chosen from the following “mathematical-economics” group:

- ECON 1170 Welfare Economics
- ECON 1465 Market Design: Theory and Applications
- ECON 1470 Bargaining Theory and Applications
- ECON 1640 Econometrics II
- ECON 1650 Financial Econometrics
- ECON 1750 Investments II
- ECON 1759 Data, Statistics, Finance
- ECON 1810 Economics and Psychology
- ECON 1820 Behavioral Economics
- ECON 1850 Theory of Economic Growth
- ECON 1860 The Theory of General Equilibrium
- ECON 1870 Game Theory and Applications to Economics

**Mathematics**

At least two calculus courses through MATH 0180 or its equivalent.  
MATH 0520 Linear Algebra

Select one of the following Options:

**Option A**

MATH 1610 Probability

MATH 1620 Mathematical Statistics

One course from the “advanced mathematics” group, as follows:

- MATH 1010 Analysis: Functions of One Variable
- MATH 1110 Ordinary Differential Equations
- MATH 1120 Partial Differential Equations
- MATH 1130 Functions of Several Variables
- MATH 1140 Functions Of Several Variables

**Option B**

APMA 1650 Statistical Inference I

Two courses from the “advanced mathematics” group, as follows:

- MATH 1010 Analysis: Functions of One Variable
- MATH 1110 Ordinary Differential Equations
- MATH 1120 Partial Differential Equations
- MATH 1130 Functions of Several Variables
- MATH 1140 Functions Of Several Variables

**Total Credits:** 12

**Mathematics**

Mathematics is a grouping of sciences, including geometry, algebra, and calculus, that study quantity, structure, space, and change. Mathematics concentrators at Brown can explore these concepts through the departments broad course offerings and flexible concentration requirements. The concentration leads to either the Bachelor of Arts or Bachelor of Science degree (the latter is strongly recommended for students interested in pursuing graduate study in mathematics or related fields). Concentrators begin their learning with multivariable calculus, that study quantity, structure, space, and change. Mathematics concentrators at Brown can explore these concepts through the departments broad course offerings and flexible concentration requirements. The concentration leads to either the Bachelor of Arts or Bachelor of Science degree (the latter is strongly recommended for students interested in pursuing graduate study in mathematics or related fields). Concentrators begin their learning with multivariable calculus, linear algebra, and abstract algebra. Beyond these prerequisites, students take a variety of advanced topics on the 1000 and 2000 level based on their interests. Students also have the option of completing a thesis project.

Concentrators in mathematics should complete the prerequisites by the end of their sophomore year. It is strongly recommended that students take MATH 1010 before taking MATH 1130.

**Standard program for the A.B. degree**

**Prerequisites:**

Multivariable calculus and linear algebra (choose one of the following sequences):  
MATH 0180 Intermediate Calculus  
MATH 0520 Linear Algebra

MATH 0180 Intermediate Calculus & MATH 0540 Honors Linear Algebra

MATH 0200 Intermediate Calculus (Physics/Engineering) & MATH 0520 Linear Algebra

MATH 0350 Honors Calculus & MATH 0540 Honors Linear Algebra

Or the equivalent

**Program:**

- MATH 1530 Abstract Algebra

Five other 1000- or 2000-level Mathematics courses

**Total Credits:** 8

1 One of which may be replaced, with the approval of the concentration advisor, by a mathematically-oriented course in science, economics, or applied mathematics.
Standard program for the Sc.B. degree

Prerequisites:

Multivariate calculus and linear algebra (choose one of the following sequences):

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0520</td>
<td></td>
</tr>
<tr>
<td>MATH 0180</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0540</td>
<td></td>
</tr>
<tr>
<td>MATH 0200</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0520</td>
<td></td>
</tr>
<tr>
<td>MATH 0350</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0540</td>
<td></td>
</tr>
</tbody>
</table>

Or the equivalent

Program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1130</td>
<td>2</td>
</tr>
<tr>
<td>MATH 1140</td>
<td></td>
</tr>
<tr>
<td>MATH 1530</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1540</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1560</td>
<td></td>
</tr>
<tr>
<td>Four other 1000- or 2000-level Mathematics courses.</td>
<td>4</td>
</tr>
<tr>
<td>Four additional courses in mathematics, science, economics, or applied mathematics approved by the concentration advisor.</td>
<td>4</td>
</tr>
<tr>
<td>Total Credits</td>
<td>14</td>
</tr>
</tbody>
</table>

Honors

Honors degrees may be recommended for students who have exhibited high achievement in mathematics. Candidates must complete at least eight mathematics courses at the 1000 or 2000 level with sufficiently good grades and must write an honors thesis under the guidance of a faculty member. The honors thesis is usually written while the candidate is enrolled in MATH 170. The candidate should consult with the concentration advisor for the precise grade requirements.

Those interested in graduate study in mathematics are encouraged to take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1130</td>
<td>2</td>
</tr>
<tr>
<td>MATH 1140</td>
<td></td>
</tr>
<tr>
<td>MATH 1260</td>
<td></td>
</tr>
<tr>
<td>MATH 1410</td>
<td></td>
</tr>
<tr>
<td>MATH 1540</td>
<td></td>
</tr>
</tbody>
</table>

Mathematics-Computer Science

Students may opt to pursue an interdisciplinary Bachelor of Science degree in Math-Computer Science, a concentration administered cooperatively between the mathematics and computer science departments. Course requirements include math- and systems-oriented computer science courses, as well as computational courses in applied math. Students must identify a series of electives that cohere around a common theme. As with other concentrations offered by the Computer Science department, students have the option to pursue the professional track (http://www.cs.brown.edu/ugrad/concentrations/professional_track.html) of the ScB program in Mathematics-Computer Science.

Requirements for the Standard Track of the Sc.B. degree.

Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three semesters of Calculus to the level of MATH 0180, MATH 0200, or MATH 0350</td>
<td>3</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0540</td>
<td></td>
</tr>
</tbody>
</table>

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1530</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following series:</td>
<td></td>
</tr>
<tr>
<td>Series A</td>
<td></td>
</tr>
<tr>
<td>CSCI 0150</td>
<td>1</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td></td>
</tr>
<tr>
<td>Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures</td>
<td></td>
</tr>
<tr>
<td>Series B</td>
<td></td>
</tr>
<tr>
<td>CSCI 0170</td>
<td>1</td>
</tr>
<tr>
<td>&amp; CSCI 0180</td>
<td></td>
</tr>
<tr>
<td>Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction</td>
<td></td>
</tr>
<tr>
<td>Series C</td>
<td></td>
</tr>
<tr>
<td>CSCI 0190</td>
<td>1</td>
</tr>
<tr>
<td>Accelerated Introduction to Computer Science and an additional CS course not otherwise used to satisfy a concentration requirement; this course may be CSCI 0180, an intermediate-level CS course, or a 1000-level CS course</td>
<td></td>
</tr>
<tr>
<td>CSCI 0320</td>
<td>1</td>
</tr>
<tr>
<td>or CSCI 0330</td>
<td></td>
</tr>
<tr>
<td>Introduction to Software Engineering</td>
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<tr>
<td>or CSCI 0220</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to Computer Systems</td>
<td></td>
</tr>
<tr>
<td>or CSCI 0450</td>
<td>1</td>
</tr>
<tr>
<td>Introduction to Discrete Structures and Probability</td>
<td></td>
</tr>
<tr>
<td>or CSCI 0510</td>
<td>1</td>
</tr>
<tr>
<td>Models of Computation</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
</tr>
</tbody>
</table>

1 These courses must be at the 1000-level or higher. The three courses must include a pair of courses with a coherent theme. A list of pre-approved pairs may be found at the approved-pairs web page (http://cs.brown.edu/ugrad/concentrations/approvedpairs.html). You are not restricted to the pairs on this list, but any pair not on the list must be approved by the director of undergraduate studies.

2 These must be approved by a concentration advisor.

3 A one-semester course, normally taken in the student’s last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic in depth, to produce a culminating artifact such as a paper or software project.

Requirements for the Professional Track of the Sc.B. degree.

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

• Which courses were put to use in your summer’s work? Which topics, in particular, were important?
• In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
• Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
• What did you learn from the experience that probably could not have been picked up from course work?

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Medieval Cultures

Medieval Cultures offers two distinct areas of historical focus: the Medieval and the Late Antique. The former focuses on the eighth through the fifteenth centuries, combining interdisciplinary perspectives with in-depth study of one or two related disciplines. Late Antique Cultures deals with the third through the ninth centuries, when ancient cultural forms were still in place but medieval cultures were beginning to take shape simultaneously. The first undergraduate degree of its kind in this country, Late Antique Cultures facilitates the study of human activity in all of its variety. A traditional area of study in Medieval Cultures is Western Europe, but students are encouraged to work in other cultural areas such as Byzantine, Islamic, Judaic and Slavic. The concentration serves students interested in the changing relation of cultural practices, social patterns, political and economic forms, and artistic and literary traditions in this important transitional period.

Medieval Cultures Track

It is recommended that prospective concentrators take the introductory course, Medieval Perspectives, during their freshman or sophomore year.

Requirements

Ten courses approved by the Program in Medieval Studies, including two courses in medieval history and one 1000- or 2000-level course that uses primary texts in a medieval language other than Middle English. Interested students are invited to discuss their plans with an appropriate faculty member of the Program. A concentration proposal should be prepared in consultation with the faculty advisor and submitted to the Program Chair for approval.

Honors

This is awarded to students who present a meritorious honors thesis in addition to completing the required courses of the concentration. The thesis permits the student to synthesize various disciplines or interests, or to pursue a new interest in greater depth. To be eligible for Honors, candidates must complete a minimum of six approved courses in Medieval Studies by the end of their third year with more grades of A than B. Students should apply for admission to Honors and should meet with their faculty advisor(s) no later than spring of the junior year to plan the thesis project. Accepted candidates write the thesis in a two-semester course sequence under the supervision of a director and a second reader drawn from the Medieval Studies faculty. Interested students should contact the concentration advisor for further details or consultation (663-1994).

Late Antique Cultures Track

Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 1310</td>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
<td>1</td>
</tr>
<tr>
<td>CLAS 1320</td>
<td>Roman History II: The Roman Empire and Its Impact (recommended)</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1030</td>
<td>The Long Fall of the Roman Empire</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1040</td>
<td>Crusaders and Cathedrals, Deviants and Dominance: Europe in the High Middle Ages</td>
<td>1</td>
</tr>
</tbody>
</table>

Six other courses drawn from appropriate offerings and with the approval of the concentration advisor. These courses should support a concentration area of special interest.

Total Credits: 9

1 The language in most cases will be Latin, but students will present different competencies and interests; other languages, such as Greek, Hebrew, or one of the medieval vernaculars can be substituted for Latin, with the approval of the concentration advisor and in conjunction with a clearly articulated program of study.

Honors

When in Late Antique Cultures, these are awarded to students who present a meritorious honors thesis in addition to completing the required courses of the concentration. Application for admission to honors should be made in the spring of the junior year, by which time honors candidates must have completed a minimum of six approved courses in Late Antique Studies. Accepted candidates write the thesis in a two-semester course sequence (MDVL 1990) under the supervision of a director and a second reader to be determined in consultation with the advisor.

Middle East Studies

Middle East Studies (MES) is an interdisciplinary concentration that draws upon courses offered in the departments of Anthropology, Classics, Comparative Literature, Egyptology, History, History of Art and Architecture, Judaic Studies, Old World Archaeology, Religious Studies and Political Science. The Middle East is cradle of the three major monotheistic religions of the world and, for centuries it has been one of the most ethnically and religiously mixed regions of the world. The Middle East is an ideal site for considering the diversity and complexity of human interactions, along with the continuities and disruptions that such interactions involve in the long course of history. MES concentrators are thus uniquely poised to make significant contributions to an understanding of a broad range of contemporary problems that affect our world.

The Middle East encompasses a diversity of cultures. It includes the lands where the first cities were built and the earliest writing system was developed, the same lands where the three monotheistic religious traditions – Islam, Judaism and Christianity – flourished. The region has always been a crossroads for states and empires, networks of trade and intellectual discourse. Therefore we define it beyond traditional geographic parameters, which tend to focus on the Arab world, North Africa, Iran and Turkey. The concentration approaches the study of the Middle East of the 21st century as a global phenomenon, one that has generated diasporic communities throughout the world as well as transnational Islamic and other religion-based movements. The Middle East is integral to the making of global socio-economic networks, political discourses and the histories of colonialism and empire. While the contemporary popular media focus on the Middle East of late modernity, the concentration promotes the study of the region through a long-term perspective from antiquity to the present day. As an interdisciplinary concentration, Middle East Studies integrates diverse methodological approaches drawn from a variety of disciplines.

The concentration is designed to provide a broad knowledge of the region as well as a comparative understanding of Middle Eastern cultures, societies, states and economies. Within the concentration, students can choose from the following three focus areas:

I. Religions and Cultures: This focus area largely – although not exclusively – prioritizes pre-modern and early modern cultures and religions in the lands of the Middle East. Grounded primarily in the humanities, courses engage in an ongoing genealogy of the major cultural formations and religious traditions through the work of ethnographers, archaeologists, historians, sociologists, theologians, historians of science, literary critics and numerous other realms of scholarship. Topics covered in relevant coursework vary widely, ranging from Arabic literature to the history of Syriac Christianity to the medieval pilgrims of the Holy Land.

II. Modern Politics and Society: This focus area centers on issues that have been particularly salient in the colonial and post-colonial periods of the countries and peoples from the region and practicing its major faiths.
Relevant coursework examines the formation of political regimes, the development of nationalist and supra-nationalist ideologies such as Arab nationalism or Islamism, ethnic and sectarian movements and identity formation, as well as regional conflict and accommodation in the modern and contemporary periods.

III. Economies and Resources: Water, oil, cultural patrimony: From the Petra artifacts adorning RI Hall to the diesel that powers emergency generators which keep experiments running during winter storms, this university is intimately linked to the resources and economic logics that help to make the lands of the Middle East an object of academic study. Coursework in this focus area centers on two possible trajectories, including the economics of heritage practices (i.e., tourism to archaeological sites) or economic development and underdevelopment in the region (i.e., the political economy of oil, labor, water and other resource flows).

All concentrators are required to fulfill seven courses in addition to the language competency requirements for a total of eleven courses:

1. One course in a major religious tradition (i.e., Christianity, Islam, Judaism);
2. One course on the history of the Middle East. (Note: Students whose coursework deals primarily with the ancient or pre-modern periods, are strongly encouraged to take a modern history course while students whose coursework deals primarily with the modern period are strongly encouraged take an ancient or pre-modern history course);
3. Three focus area courses (the list of eligible courses for each focus area is available at the Middle East Studies website: [http://www.watsoninstitute.org/middleeast/]); and
4. Two electives, including any two courses from any focus area in the concentration or independent studies approved by the MES director. (Note: Language courses beyond the requirements are eligible).
5. Language competency: Intermediate competency in a Middle Eastern language (i.e., Arabic, Aramaic, Egyptian, Farsi, Hebrew, Hindi-Urdu, Turkish), or four semesters of language coursework in the same language, is required. The requirement may be met by successfully passing courses in the given language at the intermediate level at Brown or another institution. Students wishing to fulfill this requirement on the basis of study outside of Brown are required to pass a competency test administered by an authorized Brown faculty member as listed on the MES website. Students who complete the language requirement in fewer than four courses – whether at Brown or elsewhere – are required to take courses equivalent to the number of language courses they do not need to fulfill. These may include more advanced language courses, courses in a second language, or courses from any of the three focus areas.

Capstone Project

All concentrators are required to complete a capstone project. Students undertake the project in conjunction with one or more faculty members with interests in the Middle East. The project may take the form of an undergraduate honors thesis, an independent study project, or with permission, an enhanced final project for a regularly scheduled course.

Concentration Colloquium

All concentrators are required to attend the annual concentration colloquium at which students who have completed a capstone project make a presentation related to that project. The colloquium is held during spring semester.

Honors

Students may graduate with Honors in Middle East Studies by completing an undergraduate Honors thesis under the supervision of a primary reader drawn from the Middle East Studies faculty and one additional reader from the Brown or Brown-affiliated faculty. Honors students must increase the number of courses in the concentration to twelve, of which two course credits (i.e., one thesis credit course and one elective course) may be devoted to the preparation of the thesis.

Study Away from Brown:

Up to two courses taken at educational institutions other than Brown may be credited toward the concentration upon approval of the concentration advisor. All students must provide a syllabus and samples of written work before the MES Director can review coursework taken at other institutions for approval. For languages courses taken abroad, students may provide evaluation forms or transcripts instead of written work for review by an appropriate language instructor at Brown.

Double Concentrators:

Up to two courses may be cross-listed with another concentration in order to qualify for a double concentration in Middle East Studies. All concentration proposals are subject to review by the Middle East Studies Concentration Advisor. Students are expected to submit their concentration proposals no later than two weeks before the end of the preregistration period in their sophomore year.

Modern Culture and Media

Modern Culture and Media (MCM) is an interdisciplinary concentration that explores the ties between media and broader cultural and social formations. We stress creative thinking and critical production: comparative analysis and theoretical reflection, as well as work that integrates practice and theory. We thus bring together aspects of modern culture that are normally separated by departmental structures such as film and media studies, fine art, literature, literary arts, and philosophy. This concentration offers the student a range of possible specializations. A student might decide to focus the critical study and production of a certain type or combination of media (print, photography, sound recording, cinema, video, television, and digital media); or they might focus on certain cultural, theoretical and/or social formations (for example, gender/sexuality in post-Cold War television, postcolonial theory and film, the changing form of the novel, theories of subjectivity and ideology, video games and theories of representation). These paths are united by a commitment to critical thinking/practice, rather than reproducing conventions, MCM concentrators learn how conventions emerge, what work they do, and explore ways to change them.

Track I

Track I concentrators may choose to study a particular historical moment, a medium, or a mode of textual production, in combination with theoretical studies that examine the categories of cultural analysis: for example, the distinction between high and low culture. Examples of areas of interest include but are not limited to film, gender/sexuality, digital media, television, post-coloniality, the novel, modern thought, the modern arts, sound, and theories of ideology and subjectivity. Productive work in some modern medium or textual mode is encouraged for all concentrators. MCM’s approach to production recognizes the inextricable link between theory and practice, and the possibility of a fruitful complicity between them. Production, in the sense defined here, is a theoretically informed sphere or practice, one within which acknowledged forms of cultural creation are tested and extended in close complementarity with the analyses conducted elsewhere in MCM.

Track I consists of 11 courses.

Core courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0110</td>
<td>Introduction to Modern Culture and Media</td>
<td>1</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>MCM 0230</td>
<td>Digital Media</td>
<td></td>
</tr>
<tr>
<td>MCM 0240</td>
<td>Television Studies</td>
<td></td>
</tr>
<tr>
<td>MCM 0250</td>
<td>Visual and Visual Theories</td>
<td></td>
</tr>
<tr>
<td>MCM 0260</td>
<td>Cinematic Coding and Narrativity</td>
<td></td>
</tr>
<tr>
<td>MCM 1110</td>
<td>The Theory of the Sign</td>
<td></td>
</tr>
</tbody>
</table>

Additional courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>One must be an upper level course from the MCM 1200 series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two must be senior seminars from the MCM 1500 or MCM 1700 series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two must be at any level in MCM above MCM 0260</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search ([http://selfservice.brown.edu/menu](http://selfservice.brown.edu/menu)).
Three additional courses. These courses must be in MCM or in related departments. ²

Total Credits ¹

1  No more than three courses from this list may count for concentration requirements.

2  The specific courses must be approved by an MCM concentration advisor as part of a coherent program of study.

Other Requirements:

1. Focus Area: Of the 11 courses required for the concentration, at least 3 courses must be in a focus area approved by a concentration advisor. These courses may be MCM courses, related courses, or a combination of the two, and they must represent a concentration on some aspect of modern literature, theory, media, art or culture. Examples of possible focus areas are: mass/popular culture, gender/sexuality, language/representation/subjectivity, narrative, digital media, film, modern thought, television, the modern arts, the novel, colonialism and post-colonialism, and so on. This is not an exhaustive list. Production courses may be in the focus area but must be in addition to the minimum 3 courses.

2. Production: Work in production is encouraged but not required for all Track I concentrators. Of the 11 courses required for concentration, as many as 3 may be in production. These may be production courses offered by MCM (film, video, digital media) or courses in creative writing, painting, photography, journalism, etc., provided they do not bring the total number of concentration courses taken outside MCM to more than 3.

Honors: Students who qualify for Honors in Track I are eligible to apply to do an Honors project or thesis. Applications will be screened by the MCM Honors Committee. (Application forms should be obtained by prospective honors students in the 7th semester. They are available in the MCM office.) If approved, a student must then register for MCM 1990, a one-credit thesis course in which they complete the Honors project.

Track II

Track II concentration combines production courses with the critical study of the cultural role of practice. It aims to engage students in the analysis of theories of production elaborated within philosophical, artistic, and technological traditions, while encouraging them to produce works that interrogate these traditions.

Track II consists of 11 courses:

Two core courses:

MCM 0110  Introduction to Modern Culture and Media ¹

Select one of the following Introductory Practice or History of a Medium courses: ¹

MCM 0710  Introduction to Filmmaking: Time and Form
MCM 0730  Introduction to Video Production: Critical Strategies and Histories
MCM 0750  Digital Art
VISA 0100  Studio Foundation
VISA 0110  Advanced Studio Foundation
VISA 0120  Foundation Media: Sound and Image
MUSC 0200  Computers and Music
CSCI 0150  Introduction to Object-Oriented Programming and Computer Science

A course from the LITR 0110 series

A course from the LITR 0210 series

A course from the HIAA 0010 series

TAPS 0030  Introduction to Acting and Directing
MUSC 0010  Introduction to Western Music
MUSC 0040  World Music Cultures (Africa, America, Europe, Oceania)

One additional course from the following: ¹

MCM 0230  Digital Media

MCM 0240  Television Studies
MCM 0250  Visuality and Visual Theories
MCM 0260  Cinematic Coding and Narrativity
MCM 1110  The Theory of the Sign

Three additional courses from the MCM 1200 or MCM 1500 series ¹

Four practice courses selected in consultation with an advisor. ²

One Senior Seminar from the MCM 1700 series or other equivalent in production

Total Credits ¹

1  At least one must be from the MCM 1500 series.

2  Courses can be in any medium or combinatory sequence of media from the following departments: Modern Culture and Media, Visual Art, Music, Literary Arts, Theatre Arts and Performance Studies, Computer Science, Engineering, supplemented by approved courses at Rhode Island School of Design and study abroad. This list is not exhaustive.

Honors: Honors in Track II entails one additional course, generally an independent study (MCM 1990 Honors Thesis Project). Enrollment in this course is approved upon acceptance of an Honors Proposal. Application forms must be submitted by prospective Honors students in the beginning of their seventh semester and are available in the MCM office. The course is taken in the student’s first semester. An Honors degree reflects not only the completion of the thesis course and project, but generally distinguished performance in the concentration.

Music

The concentration in Music integrates theory, history, ethnomusicology, technology, composition, and performance. Students may select from among three tracks within the concentration: the first track emphasizes theory, history, and composition; a second track focuses on computer music and multimedia. The Music curriculum is supported by the Orwig Music Library, a state-of-the-art facility with holdings of over 40,000 books and scores and an equal number of sound and video recordings. Concentrators are encouraged to participate in one or more of the departmentally sponsored performing organizations: Chorus, Orchestra, Jazz Band, Wind Symphony, Chamber Music Performance, Electroacoustic Ensemble, Sacred Harp/Shape-Note Singing, Old-time String Band, Javanese Gamelan, or Ghanaian Drumming.

MUSC 0550 and MUSC 0560 are prerequisite for many upper-level music courses and are required for all three concentration tracks. These courses lay the foundation for an understanding of the structure of Western music, and develop the musicianship and keyboard skills expected of all concentrators. Students considering a concentration in Music should complete this sequence as early as possible, preferably by the end of sophomore year.

The Department of Music does not award course credit for Advanced Placement (A.P.) courses. Students may receive placement credit for MUSC 0550 and/or MUSC 0560; however, Students interested in placing out of MUSC 0550-MUSC 0560 must take the theory placement test administered during the first class meeting of MUSC 0550 at the beginning of the fall semester. Each student who passes the test will consult with the director of the course to work out individual arrangements for placement credit.

Participation in one or more of the departmentally sponsored performing organizations is highly recommended: Chorus, Orchestra, Jazz Band, Wind Symphony, Chamber Music Performance, Electroacoustic Ensemble, Sacred Harp/Shape-Note Singing, Old-time String Band, Javanese Gamelan, or Ghanaian drumming.

All music courses—including performance courses—are open to all Brown students, provided that they have satisfied the prerequisites.

Concentration Requirements:

History/Theory/Composition Track:

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
## Music Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 0550</td>
<td>Theory of Tonal Music (offered every fall)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0560</td>
<td>Theory of Tonal Music (offered every spring)</td>
<td>1</td>
</tr>
</tbody>
</table>

## History

Select two of the following (the third is optional):

- MUSC 0910 Medieval and Renaissance Music
- MUSC 0920 Baroque and Classic Music
- MUSC 0930 Romantic and Modern Music

## Advanced Theory

Select two of the following:

- MUSC 1020 Modal Counterpoint (usually offered every other fall)
- MUSC 1030 Tonal Counterpoint (usually offered every other fall)
- MUSC 1040 Advanced Music Theory I (usually offered every other fall)
- MUSC 1050 Advanced Music Theory II (usually offered every other fall)

## Advanced Musicianship

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1010</td>
<td>Advanced Musicianship I (offered every fall)</td>
<td>0.5</td>
</tr>
<tr>
<td>MUSC 1011</td>
<td>Advanced Musicianship II (offered every spring)</td>
<td>0.5</td>
</tr>
</tbody>
</table>

## Ethnomusicology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 1900</td>
<td>Introduction to Ethnomusicology (usually offered annually)</td>
<td>1</td>
</tr>
</tbody>
</table>

## Electives:

Three upper-level courses are required (i.e., no course below MUSC 0570); 3

| Total Credits | 11 |

1 Prerequisite: MUSC 0560
2 Should be taken before the senior year.
3 1600-level seminars are preferred. Up to two full Applied Music or ensemble credits (i.e., four semesters) may be applied to the concentration requirements.

## Neuroscience

Neuroscience is an interdisciplinary field that seeks to understand the functions and diseases of the nervous system. It draws on knowledge from neurobiology as well as elements of psychology and cognitive science, and mathematical and physical principles involved in modeling neural systems. Through the Neuroscience concentration, students develop foundational knowledge through courses in biology, chemistry, and mathematics as well as three core courses in neuroscience. They are also required to develop facility with research methodologies (through courses in statistics and laboratory methods) before moving into specific topics in the field (e.g., visual physiology, neurochemistry and behavior, and synaptic transmission and plasticity). Members of the Neuroscience faculty are affiliated with the Brown Institute for Brain Science, a multidisciplinary program that promotes collaborative research about the brain. Prospective concentrators should contact Heather_Shalvey@brown.edu in order to have a faculty advisor assigned to them.

### Standard program for the Sc.B. degree

The concentration combines a general science background with a number of specific courses devoted to the cellular, molecular, and integrative functions of the nervous system. The concentration allows considerable flexibility for students to tailor a program to their individual interests. Elective courses focus on a variety of areas including molecular mechanisms, cellular function, sensory and motor systems, neuropharmacology, learning and memory, animal behavior, cognitive function, bioengineering, theoretical neuroscience and computer modeling.

The concentration in neuroscience leads to an Sc.B. degree. The following background courses, or their equivalent, are required for the degree:

#### Background Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0040</td>
<td>Basic Physics</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Core Concentration Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
<td>1</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
<td>1</td>
</tr>
<tr>
<td>NEUR 1030</td>
<td>Neural Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Electives:

Four elective courses selected in any combination from the following groups:

- Computer Music and Multimedia courses, MUSC 1220–1290 or MUSC 2200–2290
- Theory and composition courses, MUSC 1020–1190
- No more than one lower-level Computer Music and Multimedia course, MUSC 0210–0230
- No more than one electronic art production course (VISA or MCM) from approved list (see the Concentration Advisor for current approved courses in this area)

| Total Credits | 10 |

### Ethnomusicology Track:

#### Music Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MUSC 0550</td>
<td>Theory of Tonal Music (offered every fall)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0560</td>
<td>Theory of Tonal Music (offered every spring)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Other Foundational Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0100</td>
<td>Introduction to Cultural Anthropology</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1900</td>
<td>Introduction to Ethnomusicology (usually offered annually)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### History

Select two of the following (the third is optional):

- MUSC 0910 Medieval and Renaissance Music
- MUSC 0920 Baroque and Classic Music
- MUSC 0930 Romantic and Modern Music

#### Electives in Ethnomusicology

Four additional courses in ethnomusicology numbered 1000 or higher are required. 2

| Total Credits | 10 |

1 Should be taken before the senior year.
2 For a list of qualifying courses, see the Concentration Advisor.

### Computer Music and Multimedia Track:

#### Music Theory

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 0550</td>
<td>Theory of Tonal Music (offered every fall)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0560</td>
<td>Theory of Tonal Music (offered every spring)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Computer Music Foundation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 0200</td>
<td>Computers and Music</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1200</td>
<td>Seminar in Electronic Music: Recording Studio as Compositional Tool</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 1210</td>
<td>Seminar in Electronic Music: Real-Time Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Philosophy

The Philosophy concentration offers courses covering subjects from the philosophy of religion to the philosophies of science and literature. It also provides survey courses on various periods in the history of philosophy. Concentrators can expect to strengthen their knowledge of and skills in ancient philosophy, early modern philosophy, logic, epistemology and metaphysics. In addition to the standard concentration, there are two tracks: ethics and political philosophy and the logic and philosophy of science. There is also a related, but separate concentration in physics and philosophy. All three options encourage an interdisciplinary approach and allow students to apply related courses in other departments towards the fulfillment of their concentration requirements.

There is one concentration program in Philosophy, with two optional tracks.

Standard Concentration

Eight courses in philosophy, which may not include more than one course numbered below 0350. In addition, at least one of the courses must be an undergraduate or graduate seminar.

One course in Ancient Philosophy

PHIL 0350 Ancient Philosophy
PHIL 1250 Aristotle
PHIL 1260 Plato
PHIL 1310 Myth and the Origins of Science

One course in Early Modern Philosophy

PHIL 0360 Early Modern Philosophy
PHIL 1700 British Empiricists
PHIL 1710 17th Century Continental Rationalism
PHIL 1720 Kant: The Critique of Pure Reason

Logic

PHIL 0540 Logic (or higher)

Ethics or Political Philosophy

PHIL 0500 Moral Philosophy (or higher)

One course in Epistemology or Metaphysics

PHIL 1660 Metaphysics
PHIL 1750 Epistemology
PHIL 1770 Philosophy of Mind

Three additional courses is philosophy

Total Credits: 17

Optional tracks:

Ethics and Political Philosophy

Eight courses in philosophy, which may not include more than one course numbered below 0350.

One course in Ancient Philosophy

PHIL 0350 Ancient Philosophy
PHIL 1250 Aristotle
PHIL 1260 Plato
PHIL 1310 Myth and the Origins of Science

One course in Early Modern Philosophy

PHIL 0360 Early Modern Philosophy
PHIL 1700 British Empiricists
PHIL 1710 17th Century Continental Rationalism
PHIL 1720 Kant: The Critique of Pure Reason

Logic

PHIL 0540 Logic (or higher)

Three courses in ethics or political philosophy at the level of 0400 or higher

Two additional philosophy courses

Total Credits: 8

Logic and Philosophy of Science

Eight courses in philosophy, which may not include more than one course numbered below 0350. With the approval of the concentration advisor, two appropriate science or mathematics courses may be taken instead of philosophy courses.

One course in Ancient Philosophy

PHIL 0350 Ancient Philosophy
PHIL 1250 Aristotle
PHIL 1260 Plato
PHIL 1310 Myth and the Origins of Science

One course in Early Modern Philosophy

PHIL 0360 Early Modern Philosophy
PHIL 1700 British Empiricists
PHIL 1710 17th Century Continental Rationalism
PHIL 1720 Kant: The Critique of Pure Reason

A course in Logic at the level of 1630 or higher

One course in Epistemology or Metaphysics

PHIL 1660 Metaphysics
PHIL 1750 Epistemology
PHIL 1770 Philosophy of Mind

Three courses in philosophy of science at the level of 0650 or higher

One additional philosophy course

Total Credits: 8

Cross-listed courses may be used to fulfill the requirements of any of the concentrations above only with the approval of the concentration advisor.

Honors

Seniors wishing to earn honors by presenting a senior honors thesis should consult their concentration advisor during their sixth semester concerning procedures and requirements. In addition to completing the usual non-honors requirements, a student must write a thesis judged to be of honors quality by two readers and have a strong record in philosophy department courses (of which at least five must be taken for a letter grade). Honors theses are usually written during a student’s final semester at Brown.

Physics

Physics is the scientific study of the fundamental principles governing the behavior of matter and the interaction of matter and energy. Mathematics is used to describe fundamental physical principles, the behavior of matter, and the interactions of matter and energy. As the most fundamental of sciences, physics provides a foundation for other scientific fields as well as the underpinnings of modern technology. The Physics department is unique because of the breadth of its faculty expertise and research, and the relatively intimate size of its classes above the introductory level. Physics concentrators may choose to pursue either the A.B. or the more intensive Sc.B. degree. Course work on either path covers a broad base of topics (for example, electricity and magnetism, classical and quantum mechanics, thermodynamics, and statistical mechanics). The Sc.B. degree requires additional advanced topics as well as a senior thesis project.

Standard concentration for the A.B. degree

Select one of the following Series:

PHYS 0070 Analytical Mechanics
& PHYS 0160 and Introduction to Relativity and Quantum Physics

PHIL 0350 Ancient Philosophy
PHIL 1250 Aristotle
PHIL 1260 Plato
PHIL 1310 Myth and the Origins of Science

PHIL 0360 Early Modern Philosophy
PHIL 1700 British Empiricists
PHIL 1710 17th Century Continental Rationalism
PHIL 1720 Kant: The Critique of Pure Reason

PHIL 0540 Logic (or higher)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics &amp; PHYS 0040 Basic Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics &amp; PHYS 0060 Foundations of Electromagnetism and Modern Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0500</td>
<td>Advanced Classical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0560</td>
<td>Experiments in Modern Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1410</td>
<td>Quantum Mechanics A</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
<td>1</td>
</tr>
</tbody>
</table>

One additional 1000-level course or a mathematics course beyond the introductory level.

Total Credits: 8

### Standard program for the Sc.B. degree

**Prerequisites:**
- Select one of the following series:
  - PHYS 0070 Analytical Mechanics & PHYS 0160 and Introduction to Relativity and Quantum Physics
  - PHYS 0050 Foundations of Mechanics & PHYS 0060 and Foundations of Electromagnetism and Modern Physics

- Select one of the following:
  - MATH 0190 Advanced Placement Calculus (Physics/Engineering)
  - Or MATH 0090, MATH 0100

**Program:**
- PHYS 0470 Electricity and Magnetism
- PHYS 0500 Advanced Classical Mechanics
- PHYS 0560 Experiments in Modern Physics
- PHYS 1410 Quantum Mechanics A
- PHYS 1420 Quantum Mechanics B
- PHYS 1510 Advanced Electromagnetic Theory
- PHYS 1530 Thermodynamics and Statistical Mechanics
- PHYS 1560 Modern Physics Laboratory
- PHYS 1980 Undergraduate Research in Physics

One additional 1000 or 2000 level Physics course or upper level course in related fields of science chosen by the student with agreement of his or her advisor.

Four Mathematics courses beyond MATH 0190 or 0090, 0100 including choices from Applied Mathematics
- PHYS 1990 Senior Conference Course

Total Credits: 18

1 In addition, courses in computer programming are recommended.

2 A senior thesis is required. This is to be prepared in connection with PHYS 1990 under the direction of a faculty supervisor. The topic may be in a related department or of interdisciplinary nature. In any event, a dissertation must be submitted.

### Astrophysics Track for the Sc.B. degree

**Prerequisites:**
- Select one of the following Series:
  - PHYS 0070 Analytical Mechanics & PHYS 0160 and Introduction to Relativity and Quantum Physics
  - PHYS 0050 Foundations of Mechanics & PHYS 0060 and Foundations of Electromagnetism and Modern Physics
  - PHYS 0270 Introduction to Astronomy

- Select one of the following Series:
  - MATH 0170 Advanced Placement Calculus & MATH 0180 and Intermediate Calculus
  - MATH 0190 Advanced Placement Calculus (Physics/Engineering) & MATH 0200 and Intermediate Calculus (Physics/Engineering)
  - MATH 0350 Honors Calculus (or equivalent)
  - PHYS 0470 Electricity and Magnetism

**Program:**
- MATH 0520 Linear Algebra
- or MATH 0540 Honors Linear Algebra
- or PHYS 0720 Methods of Mathematical Physics

Select one of the following Math courses:
- APMA 0330 Methods of Applied Mathematics I, II
- APMA 0340 Methods of Applied Mathematics I, II
- APMA 0350 Methods of Applied Mathematics I, II
- APMA 0360 Methods of Applied Mathematics I, II
- MATH 1110 Ordinary Differential Equations
- MATH 1120 Partial Differential Equations
- PHYS 0500 Advanced Classical Mechanics
- PHYS 0560 Experiments in Modern Physics
- PHYS 1410 Quantum Mechanics A
- PHYS 1530 Thermodynamics and Statistical Mechanics

Three of the following:
- PHYS 1100 Introduction to General Relativity
- PHYS 1250 Stellar Structure and the Interstellar Medium
- PHYS 1270 Extragalactic Astronomy and High-Energy Astrophysics
- PHYS 1280 Introduction to Cosmology

Two additional 1000- or 2000-level courses in physics or a related field which are not listed as requirements.

- PHYS 1990 Senior Conference Course

Total Credits: 18

1 A senior thesis is required. This is to be prepared in connection with under the direction of a faculty supervisor. The topic may be in a related department or of interdisciplinary nature. In any event, a dissertation must be submitted.

### Biological Physics Track for the Sc.B. degree

**Foundations of Physics**
- PHYS 0070 Analytical Mechanics
- PHYS 0050 Foundations of Mechanics
- PHYS 0060 Foundations of Electromagnetism and Modern Physics
- PHYS 0470 Electricity and Magnetism
- PHYS 1410 Quantum Mechanics A
- PHYS 1530 Thermodynamics and Statistical Mechanics

Select one of the following Series:

1-2
Series A

PHYS 0720  Methods of Mathematical Physics

Series B

Select one of the following:
APMA 0330  Methods of Applied Mathematics I, II
APMA 0350  Methods of Applied Mathematics I, II
MATH 1110  Ordinary Differential Equations

And select one of the following:
MATH 0180  Intermediate Calculus
MATH 0200  Intermediate Calculus (Physics/Engineering)
MATH 0350  Honors Calculus
MATH 0520  Linear Algebra
MATH 0540  Honors Linear Algebra

Basic Biology and Chemistry

BIOL 0200  The Foundation of Living Systems (or placement out of BIOL 0200)
BIOL 0500  Cell and Molecular Biology
CHEM 0330  Equilibrium, Rate, and Structure

Advanced Biophysical Topics and Techniques

PHYS 1610  Biological Physics
PHYS 1990  Senior Conference Course

Elective Courses (four chosen from the following list, with at least two 1000-level courses, or additional courses approved by the concentration advisor):

APMA 0360  Methods of Applied Mathematics I, II
APMA 0410  Mathematical Methods in the Brain Sciences
APMA 0650  Essential Statistics
APMA 1070  Quantitative Models of Biological Systems
APMA 1080  Inference in Genomics and Molecular Biology
BIOL 0280  Introductory Biochemistry
BIOL 0470  Genetics
BIOL 1050  Biology of the Eukaryotic Cell
BIOL 1200  Protein Biophysics and Structure
BIOL 1270  Advanced Biochemistry
BIOL 1870  Techniques in Pathobiology
CHEM 0350  Organic Chemistry
CHEM 0360  Organic Chemistry
MATH 0090  Introductory Calculus, Part I
MATH 0170  Advanced Placement Calculus
MATH 0190  Advanced Placement Calculus (Physics/Engineering)
MATH 1610  Probability
MATH 1620  Mathematical Statistics
PHYS 0560  Experiments in Modern Physics
PHYS 1510  Advanced Electromagnetic Theory
PHYS 1560  Modern Physics Laboratory
PHYS 2620F  Selected Topics in Molecular Biophysics
PHYS 1990  Senior Conference Course

Total Credits 17-18

1 Select Series A alone or two from Series B as indicated.
2 A senior thesis is required. This is to be prepared in connection with under the direction of a faculty supervisor. The topic may be in a related department or of interdisciplinary nature. In any event, a dissertation must be submitted.

Mathematical Physics Track for the A.B. degree

Prerequisites:

MATH 0090  Introductory Calculus, Part I 1
or MATH 0100  Introductory Calculus, Part II
or MATH 0190  Advanced Placement Calculus (Physics/Engineering)
PHYS 0050  Foundations of Mechanics
or PHYS 0070  Analytical Mechanics

Mathematics Courses 1

MATH 0180  Intermediate Calculus 1
or MATH 0200  Intermediate Calculus (Physics/Engineering)
or MATH 0350  Honors Calculus
MATH 0520  Linear Algebra 1
or MATH 0540  Honors Linear Algebra
MATH 1110  Ordinary Differential Equations 1

Select at least one of the following:

- MATH 1060  Differential Geometry
- MATH 1120  Partial Differential Equations
- MATH 1610  Probability

Physics Courses 1

PHYS 0060  Foundations of Electromagnetism and Modern Physics 1
or PHYS 0160  Introduction to Relativity and Quantum Physics
PHYS 0470  Electricity and Magnetism 1
PHYS 0550  Advanced Classical Mechanics 1
PHYS 0560  Experiments in Modern Physics 1

Select at least two of the following:

- PHYS 1410  Quantum Mechanics A
- PHYS 1420  Quantum Mechanics B
- PHYS 1510  Advanced Electromagnetic Theory
- PHYS 1530  Thermodynamics and Statistical Mechanics
- PHYS 1560  Modern Physics Laboratory

Total Credits 12

1 Concentrators are required to take at least one course in mathematics and one in physics in each of their last two semesters.

Mathematical Physics Track for the Sc.B. degree

Prerequisites:

Select one of the following series: 2

PHYS 0070  Analytical Mechanics
& PHYS 0160  and Introduction to Relativity and Quantum Physics
PHYS 0050  Foundations of Mechanics
& PHYS 0060  and Foundations of Electromagnetism and Modern Physics

Select one of the following:

- MATH 0190  Advanced Placement Calculus (Physics/Engineering)
- MATH 0090  Introductory Calculus, Part I
  & MATH 0100  and Introductory Calculus, Part II

Required courses:

PHYS 0470  Electricity and Magnetism 1
PHYS 0550  Advanced Classical Mechanics 1
PHYS 0560  Experiments in Modern Physics 1
PHYS 1410  Quantum Mechanics A 1
PHYS 1530  Thermodynamics and Statistical Mechanics 1
MATH 0180  Intermediate Calculus 1-2
& MATH 0200  and Intermediate Calculus (Physics/Engineering)
or MATH 0350 Honors Calculus 1
MATH 0520 Linear Algebra 1
or MATH 0540 Honors Linear Algebra 1
MATH 1530 Abstract Algebra 1
Four additional 1000 or 2000 level Physics courses 4
Two additional 1000 or 2000 level Math courses 2
PHYS 1990 Senior Conference Course 1

Total Credits 18-20

1 A senior thesis is required. This is to be prepared in connection with under the direction of a faculty supervisor.

**Physics and Philosophy**

The Physics and Philosophy concentration is for students with a deep interest in physics who do not need to acquire the laboratory and computational skills of a professional physicist. The concentration allows students to grapple with computational problems and deepen their investigation of conceptual and epistemological issues. By the end of the program, concentrators possess an excellent conceptual understanding of the most philosophically interesting physics, relativity and quantum mechanics.

This concentration should prepare a student either for graduate study, especially in a history and philosophy of science (HPS) program, or for employment in science education or journalism. Other professions such as law and medicine will look favorably on such concentrators for having versatile interests and being able to master difficult material. The concentration may serve as an excellent preparation for a law school since physics and philosophy both exercise a rigorous approach to problems of immediate relevance to life but at the same time assume two complimentary and sometimes competing viewpoints.

**Advising**

Concentration advisors from the Departments of Physics and Philosophy will guide students working towards the A.B. degree.

**Curriculum**

The curriculum builds around the fields of physics that have had the biggest impact on philosophy, especially Quantum Physics, and the fields of philosophy most relevant for physics, such as Epistemology, Metaphysics and Philosophy of Physics. It is strongly recommended that students complete at least one relevant history course.

There are 11 required courses (5 in Physics or History, one course in mathematics) and a final project. The choice of the courses is dictated by the following considerations. The field of physics with both deepest philosophical implications and deepest influence on the rest of physics is Quantum Mechanics. Thus, a 1000-level course in Quantum Mechanics or a closely related field such as Statistical Mechanics is indispensable. The second field of physics most relevant for the concentration is Relativity. This field touches upon and serves as a foundation for a broad list of subjects with major philosophical implications of their own, for example: PHYS 1170, PHYS 1280, PHYS 1510, PHYS 1100. This requires another 1000-level physics course in the concentration. 1000-level Physics courses cannot be taken without certain preliminary work, most importantly, PHYS 0470, which serves as a prerequisite for most higher-level physics courses and which relies in turn on PHYS 0160 or PHYS 0060. Another lower-level physics course is necessary for a student to develop familiarity with the tools which have been employed in producing the physics knowledge.

A natural introduction into philosophy of physics comes from a course in Early Modern Philosophy. To a large extent, Early Modern Philosophy was shaped by scholars who combined interest in philosophy and physics (e.g., Rene Descartes, Blaise Pascal, Gottfried Wilhelm Leibniz). The influence of the XVII century physics revolution on other central figures such as Kant is unquestionable. Early Modern Philosophy sets an intellectual stage for many subsequent developments in the Philosophy of Physics and directly addresses some of the most perplexing issues like the connection (or lack thereof) between physics and religion. The core of the Philosophy requirement involves two courses in Epistemology, Metaphysics and Philosophy of Science. One course in this field would not be sufficient due to its very broad nature. Students are strongly advised to take a relevant History course. This requirement can be substituted by an additional philosophy course to reflect interests of those students who want a deeper background in Epistemology, Metaphysics and Philosophy of Science or have other related interests such as Ancient Natural Philosophy.

In addition to the above philosophy courses, PHIL 0210 (Science, Perception, and Reality) serves as a gateway into the concentration. It may be substituted by other relevant courses such as PHYS 0100 (Flat Earth to Quantum Uncertainty: On the Nature and Meaning of Scientific Explanation).

A course in calculus is a prerequisite for most physics and some philosophy classes.

**Required courses for the A.B. degree are listed below:**

**Physics Courses**

Select one of the following introductory courses in Modern Physics: 1

- PHYS 0060 Foundations of Electromagnetism and Modern Physics
- PHYS 0160 Introduction to Relativity and Quantum Physics
- One course in Special Relativity and Classical Field Theory: 1
- PHYS 0470 Electricity and Magnetism

Select one of the following in Methods of Experimental and Theoretical physics:

- PHYS 0500 Advanced Classical Mechanics
- PHYS 0560 Experiments in Modern Physics

Select one of the following in Quantum Mechanics and its applications 1

- PHYS 1410 Quantum Mechanics A
- PHYS 1530 Thermodynamics and Statistical Mechanics

One more 1000-level Physics course 1

**Philosophy Courses**

Select one of the following gateway courses: 1

- PHIL 0210 Science, Perception and Reality
- PHIL 0100 Critical Reasoning

Select one of the following courses in Early Modern Philosophy: 1

- PHIL 0360 Early Modern Philosophy
- PHIL 1700 British Empiricists
- PHIL 1710 17th Century Continental Rationalism
- PHIL 1720 Kant: The Critique of Pure Reason

Select two of the following courses in Epistemology, Metaphysics and Philosophy of Science: 2

- PHIL 1310 Myth and the Origins of Science
- PHIL 1590 Philosophy of Science
- PHIL 1610 Philosophy of Relativity Physics
- PHIL 1620 Philosophy of Quantum Mechanics
- PHIL 1630 Deductive Logic
- PHIL 1660 Metaphysics
- PHIL 1670 Time
- PHIL 1750 Epistemology
- PHIL 1850 Philosophical Logic

**History Courses**

Select one of the following courses in History of Science: 1

- HIST 1140 Nature, Knowledge, and Power in Renaissance Europe
- HIST 1180 The Rise of the Scientific Worldview
- HIST 1190 Nineteenth-Century Roots of Modern Science
- HIST 1200 Science and Society in the Twentieth Century

**Calculus**

Select one of the following:

- MATH 0160 or MATH 0060
- PHYS 1170, PHYS 1280, PHYS 1510, PHYS 1100
- PHYS 0470

PHIL 0100 Critical Reasoning

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Political Science

Political science applies theories, concepts, and methods to the study of political phenomena. It uses historical and philosophical perspectives to understand political problems and policy issues. Traditionally, political science splits into four subfields: (1) the study of politics in the United States (American politics); (2) the comparative study of political systems and individual nations around the globe (comparative politics); (3) the study of relations among states and peoples (international relations); and (4) the philosophical study of political ideas (political theory). What distinguishes Political Science at Brown is our interest in the big questions about political life, which we engage in a wide range of political contexts and in ways that cross traditional subfields. The concentration in Political Science exposes students to approaches to the study of politics ranging from ancient Greek philosophy to modern techniques of policy evaluation. The undergraduate concentration is organized around three broad tracks, or programs of study: American politics, international and comparative politics, and political theory. Twelve courses are required overall: ten within the Department of Political Science and two from areas outside the department related to your chosen track. Thirteen courses are required if the methods requirement is fulfilled with a course outside the department.

Requirements:

Two introductory courses: 2

For the American politics and political theory tracks, select two from the following, one of which must be the introductory course associated with the chosen track:

- POLS 0010 Introduction to the American Political Process
- POLS 0110 Introduction to Political Thought
- POLS 0200 Introduction to Comparative Politics
- POLS 0400 Introduction to International Politics

For the international and comparative politics track; two introductory courses are required:

- POLS 0200 Introduction to Comparative Politics
- POLS 0400 Introduction to International Politics

One course in the American politics subfield 1

One course in the political theory subfield 1

Two courses in the international and comparative politics subfield 2

Three upper-level courses, beyond the introductory course, in the chosen subfield 3

One methods course from Political Science: 1

- POLS 0500 Foundations of Political Analysis

Honors

Seniors wishing to earn honors by presenting a senior honors thesis should consult their concentration advisor during their sixth semester or at the start of the seventh semester concerning procedures and requirements. Students may earn honors by presenting a senior thesis judged to be of honors quality by two readers. In addition to completing the usual nonhonors requirements, the student should also have a grade point average of over 3.4 in physics, philosophy and history of science courses (of which at least five must be taken for a letter grade). Honors theses are usually prepared over a period of two semesters with an advisor from the Department of Physics or the Department of Philosophy.

Portuguese and Brazilian Studies

Portuguese and Brazilian Studies examines the Portuguese-speaking world, a large and diverse geographical and cultural area spread over five continents. Inhabited by two hundred fifty million people, this area includes Brazil, Continental and Insular Portugal, Lusophone Africa and Lusophone America. Although concentrators are encouraged to examine the global nature of the Portuguese-speaking world, typically they focus on one of the specific geographical entities mentioned above. Concentrators will strengthen their Portuguese language skills (Portuguese 400 or the equivalent is a pre-requisite) and explore relevant Lusophone literature, education, history and social science. The concentration offers one program in language and literature and another that is interdisciplinary. Most concentrators study abroad in either Brazil or Portugal.

Using the Portuguese language as a basis, the concentration in Portuguese and Brazilian Studies allows students to develop their interests in the areas of language, literature, education, history or the social sciences in general. The concentration consists of eight interrelated courses to be selected by the student, in consultation with the Concentration Advisor, from the offerings in Portuguese and Brazilian Studies as well as in other departments, such as History, Political Science, Africana Studies, Anthropology and Sociology. At least four courses must be conducted in Portuguese. Students may choose between two basic programs:

Program A (Language and literature focus):

- POBS 0610 Mapping Portuguese-Speaking Cultures: Brazil 1
- POBS 0620 Mapping Portuguese-Speaking Cultures: Portugal and Africa 1

At least two literature courses at the POBS 1500 level or higher. 2

- POBS 1030 Portuguese Stylistics: Advanced Language Study and Creative Writing 1

A course from the POBS 1800 (Concentration Seminar) series 1

Electives 1

Total Credits 8

Honors

Students wishing to undertake the honors program need to complete the same requirements as shown for the concentration. Completion of the methods requirement is required prior to applying to the Honors program. Students must also complete an honors research project and take POLS 1910 and POLS 1920 during the senior year. POLS 1910 and POLS 1920 do not count towards the 10 required Political Science courses for the concentration.

Honors

Students wishing to undertake the honors program need to complete the same requirements as shown for the concentration. Completion of the methods requirement is required prior to applying to the Honors program. Students must also complete an honors research project and take POLS 1910 and POLS 1920 during the senior year. POLS 1910 and POLS 1920 do not count towards the 10 required Political Science courses for the concentration.

To obtain an advisor, contact the concentration coordinator, Patti Gardner.

POLS 1600 Political Research Methods

- One research seminar from the POLS 1820, 1821, 1822 or 1823 offerings that is track related 1
- Two upper-level courses from outside the department related to the specialized track, chosen with the approval of the concentration advisor. 2

Total Credits 13

1 A comparable course from an outside department (ECON 1620, ECON 1630, APMA 0650, EDUC 1110, or SOC 1100 may also be used). If the methods requirement is fulfilled by an outside department course, it will not count as one of the 12 required courses.

2 Appropriate 1000-level courses offered in (but not limited to) Africana Studies, American Civilization, Anthropology, Classics, Economics, History, International Relations, Philosophy, Public Policy, Religious Studies, Sociology or Urban Studies may apply. The concentration advisor may approve a course from another department if it clearly meets the intent of the outside course requirement.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Program B (Interdisciplinary focus):

POBS 0610 Mapping Portuguese-Speaking Cultures: Brazil 1
POBS 0620 Mapping Portuguese-Speaking Cultures: Portugal and Africa 1
A course from the POBS 1800 (Concentration Seminar) series 1
Five courses to be selected from the offerings in Portuguese and Brazilian Studies and/or related departments, such as Africana Studies, Anthropology, History, Political Science, and Sociology. 5

Total Credits 8

Honors

Candidacy for honors in Portuguese and Brazilian Studies assumes a better than average record, particularly in the concentration. Candidates for honors are required to complete an honors thesis or other approved project. Normally honors candidates will register for POBS 1990 (“Research and Preparation of Honors Projects”) in Semesters VII and VIII. These independent study units may not be used to satisfy the minimum course requirement for the concentration. Honors projects are evaluated by two faculty members. Detailed information on honors is available from the concentration advisor.

Foreign Study: Study either in Brazil or in Portugal (usually in the junior year or during the summer) is encouraged as an important part of the concentration. Up to four credits from participation in foreign-study programs can be applied towards the concentration. Students should begin to prepare early for participation in such programs.

Psychology

Psychology encompasses a range of phenomena and levels of analysis in pursuit of three goals: to deepen understanding of cognitive and neural mechanisms of sensation, perception, learning, and emotion; to probe the biological and evolutionary foundations of animal behavior; and to clarify the social perception and assessment of individuals and groups. The concentration offers an array of course options, including study in quantitative methods, laboratory techniques, and senior seminars on specialized topics. Students take upper-level courses in the fields major sub-disciplines, including perception and cognition, behavioral neuroscience, and social psychology. The concentration in Psychology prepares students for careers in clinical psychology, business, policy-related research positions, law, and education.

Concentration Requirements

Introductory Psychology: Planning a concentration and choosing elective courses requires general knowledge about the topics psychologists study. Introductory Psychology (CLPS 0010) is required for the concentration. Students may satisfy the Introductory Psychology requirement by submitting AP (score of 4 or 5) or IB (score of 5 or above) test credit or by transferring Introductory Psychology course credits from other 4-year institutions.

Quantitative: Because careers in Psychology and related fields require familiarity with statistics. Therefore, the Psychology concentration requires Quantitative Methods in Psychology (CLPS 0900). CLPS 0900 is a prerequisite for most of the laboratory courses, so concentrators should plan to take this course by their fourth semester. The department does not grant concentration credit for AP Statistics, regardless of score. Students who feel that CLPS 0900 is too elementary can complete APMA 1650 for concentration credit.

Course Distribution: Concentrators must take at least one laboratory course, which provides students with hands-on experience with research methods in a substantive area of psychology. Because the laboratory serves as the basis for independent research and is a prerequisite for the Honors program, concentrators should plan to take their lab before their senior year. This course must be taken in CLPS. Independent study or laboratory courses in other departments will not fulfill this requirement.

Advanced Seminar: Both A.B. and Sc.B. concentrators are required to take one advanced limited-enrollment seminar/critical readings course. The list of approved seminars varies yearly. Contact one of the concentration advisors for details.

AP and Transfer Credits: Students receiving AP credit for Introductory Psychology can place out of CLPS 0010, and can enroll directly in higher-level psychology courses. AP credits are not accepted for other concentration requirements. Students transferring from another college or university, or students studying abroad or at another US institution, may receive transfer credits for other concentration requirements. Please refer to our departmental policy on applying AP and transfer credits.

The A.B. degree requires 12 courses. The Sc.B. degree requires 17 courses. (Concentrators should complete either the A.B. or Sc.B. Concentration Worksheet before meeting with their Concentration Advisor.)

Requirements for the A.B. degree

| CLPS 0010 | Elementary Psychology: An Introduction to Mind and Behavior (formerly PSYC 0010) | 1 |
| CLPS 0900 | Quantitative Methods in Psychology (formerly PSYC 0900) | 1 |
| Two courses in Perception and Cognition | 2 |
| Two courses in Comparative/Physiological | 2 |
| Two courses in Social/Personality/Developmental | 2 |
| One advanced laboratory course from the following: | 1 |
| CLPS 1090 | Research Methods in Psychology (formerly PSYC 1090) | |
| CLPS 1092 | Psychological Theory (formerly PSYC 1070) | |
| CLPS 1190 | Techniques in Physiological Psychology (formerly PSYC 1030) | |
| CLPS 1191 | Animal Behavior Laboratory (formerly PSYC 1450) | |
| CLPS 1192 | Experimental Analysis of Animal Behavior and Cognition (formerly PSYC 1200) | |
| CLPS 1193 | Laboratory in Genes and Behavior (formerly PSYC 1040) | |
| CLPS 1194 | Sleep and Chronobiology Research (formerly PSYC 1060) | |
| CLPS 1290 | Laboratory in Cognitive Processes (formerly COGS 1530) | |
| CLPS 1490 | Functional Magnetic Resonance Imaging: Theory and Practice (formerly PSYC 1840) | |
| CLPS 1491 | Neural Modeling Laboratory (formerly COGS 1020) | |
| CLPS 1492 | Computational Cognitive Neuroscience (formerly COGS 1460) | |
| CLPS 1510 | Human Sensory Processing (formerly PSYC 1190) | |
| CLPS 1690 | Laboratory in Developmental Psychology (formerly COGS 1610) | |
| CLPS 1790 | Personality and Clinical Assessment (formerly PSYC 1110) | |
| CLPS 1791 | Laboratory in Social Cognition (formerly PSYC 1540) | |

An advanced seminar/critical readings course in CLPS, numbered above 1000 | 1 |
Two elective courses, with approval of the concentration advisor | 2 |
Total Credits 12

1 Or advanced placement with a score of 4 or 5, or transfer credit. If placement for CLPS0010 is granted on the basis of AP or IB test scores, then another CLPS course (at any level) must be substituted.

2 The pre-approved courses in each area are listed on the concentration worksheets. A laboratory course or seminar (indicated on the worksheet) may be used to meet the area requirement only if it is the student’s second lab course or second seminar. Independent study courses cannot be used for this requirement. First year seminars outside of CLPS cannot be counted for the area requirement.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The worksheets (http://www.brown.edu/Departments/CLPS/undergrad/psychology) include up-to-date lists of labs. Independent study courses and laboratory courses outside of CLPS cannot be used to satisfy this requirement.

Consult one of the concentration advisors for lists of approved courses.

The electives should complement the student's main area of interest in Psychology. These courses can be taken outside of CLPS. Only courses that carry concentration credit in the home department can be used for this requirement. In addition, independent study and GISP courses will not fulfill this requirement.

### Requirements for the Sc.B. degree

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLPS 0010</td>
<td>Elementary Psychology: An Introduction to Mind and Behavior (formerly PSYC 0010)</td>
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<tr>
<td>CLPS 0900</td>
<td>Quantitative Methods in Psychology (formerly COGS/PSYC 0900)</td>
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<td>Two courses in Perception and Cognition</td>
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<td>Two courses in Comparative/Physiological</td>
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<td>Two courses in Social/Personality/Development</td>
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<td>An advanced laboratory course from the following:</td>
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<td></td>
<td>CLPS 1090 Research Methods in Psychology (formerly PSYC 1090)</td>
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<td>CLPS 1092 Psychological Theory (formerly PSYC 1070)</td>
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<td>An advanced seminar/critical readings course in CLPS, numbered above 1000.</td>
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<td>Six supporting science courses should be selected from the following areas:</td>
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<td>Applied Mathematics, Biology, Chemistry, Computer Sciences, Engineering,</td>
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<td>Mathematics, Neuroscience, or Physics</td>
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<td>CLPS 1980 Directed Research in Cognitive, Linguistic and Psychological</td>
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<tr>
<td></td>
<td>Sciences (formerly PSYC 1990)</td>
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</table>

**Total Credits**: 17

1. Or advanced placement with a score of 4 or 5, or transfer credit. If placement for CLPS0010 is granted on the basis of AP or IB test scores, then another CLPS course (at any level) must be substituted.

2. The pre-approved courses in each area are listed on the concentration worksheets. A laboratory course or seminar (indicated on the worksheet) may be used to meet the area requirement only if it is the student's second lab course or second seminar. Independent study courses cannot be used for this requirement. First year seminars outside of CLPS cannot be counted for the area requirement.

3. The worksheets (http://www.brown.edu/Departments/CLPS/undergrad/psychology) include up-to-date lists of labs. Independent study courses and laboratory courses outside of CLPS cannot be used to satisfy this requirement.

4. Consult one of the concentration advisors for lists of approved courses.

5. The following courses cannot be used to meet the requirement for outside science courses: independent study or GISP, courses in science studies, or ENGN 0020, 0090, 0900, 1010. AP credit can substitute for only one of these courses.

6. CLPS1980 typically involves one semester of independent research under the direct supervision of a faculty advisor in Psychology. This includes data collection and/or analysis, and a final written report. Upon department approval, the faculty advisor may be from another department or unit if the research program is within the field of psychology and approved by the concentration advisor as such. The proposal form for CLPS1980 (http://www.brown.edu/Departments/CLPS/undergrad/psychology) must be submitted to the concentration advisor before the student can register for CLPS1980. Contact the Sc.B. Concentration Advisor for further details. CLPS1980 cannot be counted for the lab requirement. The CLPS Undergraduate Concentration Committee oversees the concentration and receives petitions regarding concentration requirements.

### Honors

Detailed information about the Psychology Honors program is available on a dedicated page.

### Public Policy and American Institutions

Public Policy and American Institutions is housed in the A. Alfred Taubman Center, which is dedicated to teaching, research, and service in the areas of health care and social welfare policy, education policy, urban policy, law and criminal justice, and media and technology. Public policy refers to societal initiatives to remedy social problems. Because social problems typically emerge from complex, multi-faceted social conditions, the study of public policy requires students to become familiar with the insights of diverse academic disciplines into how institutions facilitate or inhibit societal problem-solving. The study of public policy is an excellent framework for integrating ideas drawn from several disciplines around issues of real world significance. Concentrators emerge with a sound understanding of institutional change and are well-equipped to contribute to processes of social change.

### Required Courses:

#### Core courses:

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<td>Introduction to Public Policy</td>
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<tr>
<td>POLS 1050</td>
<td>Ethics and Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>or PPAI 1700T</td>
<td>Good Government</td>
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Select one of the following:

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
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<td>ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
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<td>EDUC 1130</td>
<td>Economics of Education I</td>
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Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1600</td>
<td>Political Research Methods</td>
</tr>
<tr>
<td>EDUC 1110</td>
<td>Introductory Statistics for Education Research and Policy Analysis</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Religious Studies

Religious Studies seeks to understand and interpret religions in various historical, cultural, and social contexts. It fosters scholarly skills such as close reading (of texts and other social and material data), excellence in writing and verbal expression, interpretation of the past from written and physical evidence, and interpretation of contemporary society. By exploring the public and private concerns that religions engage for example, the nature of community and solitude, suffering and death, good and evil—students discover new ways of interpreting the complex world in which they live. As students venture into the religions of Asia, the Middle East, Africa, the Americas, and Europe, they learn about the formation and transmission of beliefs, behaviors, values, rituals, texts, institutions, and forms of community. Students also learn about conflict and accord within and between religions, as well as between religious and non-religious perspectives.

Concentration in religious studies includes course work in RELS 1000 (junior seminar in methods in the study of religion) and eight other courses conforming to the following requirements.

Each student in consultation with appropriate faculty members devises a concentration program. The student presents (for approval by the concentration advisor) a written statement of the objectives of his or her concentration program and a list of the component courses. The program is expected to encompass the study of at least one religious tradition from each of the following groups. Ordinarily, this requirement is satisfied by two or more courses in each of these areas:

1. Traditions that emerge from West Asia and the Mediterranean world
2. Traditions that emerge from South and East Asia

The plan of study must take account of more than one approach to the study of religion, e.g., philosophical and historical; contain at least two Intermediate-level courses (0200-0999), RELS 1000, and two additional advanced-level courses (above 1000). This means that no more than four courses (out of nine) can be at the introductory level. Courses listed in other departments but taught by religious studies faculty count toward the program. Up to three courses that are outside the department and not taught by religious studies faculty can count toward the program.

No later than the end of spring registration in the junior year, the concentrator will determine whether he or she will write an honors thesis or complete a capstone project for the concentration. A capstone course will be selected in consultation with the concentration advisor and other faculty as appropriate. Within the frame of this capstone course, the concentrator will address the theoretical and interpretive issues of his or her particular focus in the religious studies concentration.

Honors

A religious studies concentration with honors requires, in addition to RELS 1000 and eight other courses, an honors thesis (RELS 1999, during both semesters of the senior year). To receive honors, a student must have at least a high B in the concentration and an A on the thesis.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Where appropriate, independent reading, lab courses or GISPS may count for up to three of the twelve total courses. Students will take a minimum of 7 intermediate to advanced courses.

**Required Courses (2)**
The concentration has two required courses.

- SCSO 1400: Science and Society: Theories and Controversies, or equivalent introductory course: usually taken in the second or third year.
- SCSO 1900: Senior Seminar, also open to non-majors with the proper background, usually taken senior year.

**Thematic Track (3)**
Students will organize their course of study around the choice of a thematic track. The theme may be thought of as the applied content portion of the concentration. Students will take a minimum of three courses, at least one of which must be at an advanced level, in one of the thematic areas listed below:

- History & Philosophy of Science
- Gender & Science
- Race, Science & Ethnicity
- Health & Medicine
- Representing Science in Literature & Culture
- Policy, Persuasion & the Rhetoric of Science
- Environment & Society
- Independent Focus

**Science Track (4)**
Students will take a minimum of four courses in one of the following scientific areas: physical sciences, life sciences, mathematics/computer science. The chosen area should provide appropriate background and support for the chosen concentration theme. The science courses will be sequenced such that a concentrator will move enough beyond the introductory level to gain some understanding of the world view of scientists within a chosen field. The particular sequence of courses which best meets the science requirement will be chosen in consultation with the concentration advisor. When necessary, the concentration advisor will seek guidance from faculty within the chosen scientific field.

**Science and Technology Studies Theory (3)**
Students will take three Science and Technology Studies-related courses in the social sciences and humanities. These courses, which will provide critical theoretical background for the study of Science and Society, should address questions of historiography, epistemology and methodology in the field of science and technology studies. A full list of such courses and sample concentrations may be found at [http://www.brown.edu/Faculty/COSTS](http://www.brown.edu/Faculty/COSTS).

**Honors**
To qualify for Honors a student must:
1. Apply for candidacy for Honors by the end of the student’s seventh semester.
2. Maintain a high level of excellence in courses within the concentration and above average performance in non-concentration courses. In the event that a student has taken a number of courses S/NC he or she will submit CPR’s for consideration by the concentration advisory committee, which will evaluate the student’s candidacy.
3. Complete an Honors Thesis judged by the advisor and an additional reader to be of superior quality.
4. Deliver an oral presentation based on thesis work that is favorably reviewed by the concentration faculty and the advisory committee.

**Slavic Studies**
Slavic Studies is concerned with the languages, literatures, and civilizations of the Slavic world. Built on sound knowledge of one or two Slavic languages (normally Russian or Czech) the program allows students to develop an in-depth appreciation and understanding of East European cultures and civilizations through a broad spectrum of interdisciplinary fields. Students take courses in literature, history, culture, theater, political science, economics, and international relations. Concentrators focusing on Russia learn one of the worlds most commonly spoken languages and study some of the worlds best-regarded authors and composers: Tolstoy and Dostoevsky, Gogol and Bulgakov, Tchaikovsky and Mussorgsky, and Rachmaninoff and Stravinsky.

Focusing on Czech allows students to explore, for example, how Czechs distinguished themselves by peacefully transitioning from communism to capitalism (the Velvet Revolution) and separating peacefully with the Slovak Republic (the Velvet Divorce). Most concentrators study abroad in a Slavic country, either during the academic year or the summer.

**Requirements for the AB degree:**
1. Six semesters of one Slavic language or the equivalent (normally Czech or Russian), or a combined total of eight semesters of two Slavic languages or the equivalent.
2. Seven 1000-level courses devoted to the study of the East European civilizations: literature, history, culture, theater, political science, economics, international relations. Typically, at least four of these courses will be from within the Department of Slavic Languages. Students’ choice of courses is subject to the approval of the concentration advisor.

**Honors**
Honors candidacy in Slavic studies assumes an excellent academic record, particularly in the concentration. Additional requirements are the same as those for a standard concentration, plus the writing of a senior thesis (SLAV 1990). For procedures and schedule for writing a senior thesis, please refer to the department guidelines.

**Sociology**
Sociology seeks to understand human behavior by studying how individuals connect to the groups and institutions in which they live. Sociologists analyze the interrelationship of social structures with political, economic, and cultural forces, from the micro to the macro level. As a discipline, sociology provides students with the conceptual and analytic tools to make sense of complex social structures in a rapidly changing global environment. Browns Sociology department brings together a dynamic group of scholars with international reputations for outstanding achievement in a range of important research areas -- social demography, health and medicine, environmental justice and environmental change, development, politics and democracy, urban and spatial analysis, and organizations and occupations.

**Ten courses are required:**

**Required courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 0010</td>
<td>Perspectives on Society</td>
<td>1</td>
</tr>
<tr>
<td>or SOC 0020</td>
<td>Perspectives on Social Interaction: An Introduction to Social Psychology</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1010</td>
<td>Classical Sociological Theory</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1020</td>
<td>Methods of Social Research</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research or equivalent</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1950</td>
<td>Senior Seminar (this is a capstone seminar)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Optional Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td></td>
<td>5</td>
</tr>
</tbody>
</table>

**Total Credits**

1 At least three of the optional courses have to be 1000-level courses and one of them a senior seminar. Students can choose to take up to two (showcase?) lower level (0100-level) courses. Students can petition to take a course outside of the concentration (this will be allowed only when the proposed course makes sense given the interests of the student, and there is no equivalent sociology course).

**The Capstone Experience**
Sociology requires all concentrators to conduct a capstone project in their senior year. The purpose of the capstone project is to allow students an opportunity to apply the knowledge they acquired on a project of their
own interests. This capstone project provides a hands on experience through which students learn what can be done with Sociology. To fulfill the capstone requirement students have to take SOC 1950 – Senior Seminar during the senior year. Participation in this seminar allows each cohort of concentrators to discuss their diverse interests and exposes them to the wide range of applications of Sociological knowledge. The capstone project can take many forms, including honors theses, and other traditional and alternative projects as described below. The capstone project can be a one semester research paper on a topic of your interest. Alternatively, you can design a different type of independent project. Below is a list of suggestions for possible capstone projects.

- Doing a one semester research project on a topic of interest.
- Working with a faculty member in an Odyssey program to design a new course.
- Producing a video ethnography on a topic of your interest.
- Assisting in organizing an academic conference.
- Producing a photographic exhibit on a sociological issue.
- Interning in a community or private sector organization or a policy agency and reflecting sociologically on your experience.
- Using sociological analysis to write Engaging in public sociology, using sociological analysis to write journalistic articles and op-ed pieces or an internal evaluation or a policy report for an organization.

You should decide your capstone project in consultation with the concentration advisor and the instructor of the Senior Seminar. You may also need to approach a specific faculty within the department to advise you on your project. At the beginning of your senior year you should file a written statement with the Concentration advisor describing your capstone project and listing your advisor for the project.

**Honors**

The honors program in Sociology offers an excellent opportunity for students who seek to pursue independent and original research during their senior year. Acceptance into the honors program requires a grade of “A” in at least one half of all sociology courses. Honors students must write a thesis under the guidance of two sociology faculty members, an advisor and a reader. In addition, they must enroll in SOC 1950 (Senior Seminar) and SOC 1980 and SOC 1990 (Senior Honors Thesis) in order to develop the substantive integration of the concentration studies, and to prepare the thesis (with the advisor’s consent, students may substitute other courses for those listed above).

**South Asian Studies**

The diversity and shared histories of South Asia’s cultures, religions, languages, and nations are an important area of engagement in the world today. While India, Pakistan, Bangladesh, Sri Lanka, Nepal and neighboring nation-states constitute a recognizable geographic region, the equally vital diasporic communities from South Asia and their globally dispersed networks extend our understanding of an old and yet changing South Asia. South Asian Studies is an interdisciplinary concentration in which students work in a specified chronological period (e.g. ancient, medieval, early modern, or contemporary), in a geographical area (e.g. Bangladesh, Bengal, Maharashtra, North India, Pakistan, South India), or in a particular discipline (e.g. anthropology, Hindi/Urdu, history, religion, or Sanskrit) but also take courses outside of their chosen area of emphasis in disciplines such as economics, literature, philosophy, political science, or theatre arts.

**Course Requirements**

All South Asian Studies concentrators must take and pass 10 courses as approved by their concentration advisor.

**Course List**

- HIST 1580 Gandhi’s India: South Asia Before 1947
- CLAS 0180 Indian Civilization through Its Literature
- CLAS 0800 Religious and Philosophical Thought in Ancient India
- CLAS 0820 Epics of India
- CLAS 0990 Concepts of the Self in Classical Indian Literature
- CLAS 1140 Classical Philosophy of India
- HIST 1590 Beyond Hindu, Muslim: Recovering Early South Asia
- RELS 0140 Religions of South Asia
- RELS 0130 The Hindu Tradition
- ANTH 1250 Film and Anthropology: Identity and Images of Indian Societies
- ANTH 1321 Impact on Colonialism: Gender and Nationalism in India
- ANTH 1131 Indian Issues in Anthropological Perspective: Issues and Debates
- ANTH 2321 Coming to Terms with India: Anthropology of Colonialism and Nationalism
- POLS 1280 Politics, Economy and Society in India
- HIAA 0060 Introduction to Indian Art
- HIAA 1410A Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
- HNDI 1080 Advanced Hindi-Urdu
- MUSC 1933 Music of India
- PRSN 1200 Iranian Cinema: Before and After the Islamic Revolution
- RELS 0910 Music, Drama and Religion in India
- TAPS 1270 Performances in the Asias

At least one course in the visual arts, modern literature, music, cinema, or theatre of South Asia such as:

- HIAA 0060 Introduction to Indian Art
- HIAA 1410A Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
- HIAA 1410B Islamic History, 1400-1800
- HIAA 1500 South Asia: South Asia Before 1947
- RELS 0140 Religions of South Asia

An Honors Thesis or a Capstone Course taken in an appropriate Department.

Five electives

- ANTH 0066K International Perspectives of Women’s Agency and Society
- ANTH 1131 Indian Issues in Anthropological Perspective: Issues and Debates
- ANTH 1220 Comparative Sex Roles
- ANTH 1250 Film and Anthropology: Identity and Images of Indian Societies
- ANTH 2320 Ideology of Development
- ANTH 2321 Coming to Terms with India: Anthropology of Colonialism and Nationalism
- CLAS 0180 Indian Civilization through Its Literature
- CLAS 0800 Religious and Philosophical Thought in Ancient India
- CLAS 0820 Epics of India
- CLAS 0990 Concepts of the Self in Classical Indian Literature
- CLAS 1140 Classical Philosophy of India
- ECON 1520 The Economic Analysis of Institutions
- HIAA 0060 Introduction to Indian Art
- HIAA 1410A Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
- HIST 0970V The American South in History and Memory
- HIST 1971L History of Islamic Law: Theory and Practice
- HIST 1440 Islamic History, 1400-1800
- HIST 1580 Gandhi’s India: South Asia Before 1947
- HIST 1590 Beyond Hindu, Muslim: Recovering Early South Asia

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>HIST 1950B</td>
<td>European Empires in the East (1500-1800): A Comparative Analysis</td>
</tr>
<tr>
<td>HIST 1950E</td>
<td>Europe and the Indian Ocean, 1500 - 1800</td>
</tr>
<tr>
<td>HIST 1970O</td>
<td>Moving Boundaries: Inequalities, Histories and the Making of Postcolonial South Asia</td>
</tr>
<tr>
<td>HIST 2971A</td>
<td>Science in a Colonial Context</td>
</tr>
<tr>
<td>HNDI 0100</td>
<td>Beginning Hindi or Urdu</td>
</tr>
<tr>
<td>HNDI 0200</td>
<td>Beginning Hindi or Urdu</td>
</tr>
<tr>
<td>HNDI 0300</td>
<td>Intermediate Hindi-Urdu</td>
</tr>
<tr>
<td>HNDI 0400</td>
<td>Intermediate Hindi-Urdu</td>
</tr>
<tr>
<td>HNDI 1080</td>
<td>Advanced Hindi-Urdu</td>
</tr>
<tr>
<td>MUSC 0041</td>
<td>World Music Cultures (Middle East and Asia)</td>
</tr>
<tr>
<td>PHIL 0090</td>
<td>Philosophy East and West</td>
</tr>
<tr>
<td>POLS 1280</td>
<td>Politics, Economy and Society in India</td>
</tr>
<tr>
<td>POLS 1821O</td>
<td>Politics of Economic Development in Asia</td>
</tr>
<tr>
<td>POLS 1380</td>
<td>Ethnic Politics and Conflict</td>
</tr>
<tr>
<td>POLS 1430</td>
<td>Roots of Radical Islam</td>
</tr>
<tr>
<td>PRSN 0100</td>
<td>Basic Persian</td>
</tr>
<tr>
<td>PRSN 0200</td>
<td>Basic Persian</td>
</tr>
<tr>
<td>PRSN 0300</td>
<td>Intermediate Persian Language and Culture</td>
</tr>
<tr>
<td>PRSN 0400</td>
<td>Intermediate Persian Language and Culture</td>
</tr>
<tr>
<td>PRSN 1200</td>
<td>Iranian Cinema: Before and After the Islamic Revolution</td>
</tr>
<tr>
<td>RELS 0040</td>
<td>Great Contemplative Traditions of Asia</td>
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<tr>
<td>RELS 0090B</td>
<td>Hindu and Christian Modes of Loving Devotion</td>
</tr>
<tr>
<td>RELS 0100</td>
<td>Introduction to Buddhism</td>
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<tr>
<td>RELS 0130</td>
<td>The Hindu Tradition</td>
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<tr>
<td>RELS 0140</td>
<td>Religions of South Asia</td>
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<tr>
<td>RELS 0150</td>
<td>Islam: From Mohamed to 9/11 and Beyond</td>
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<tr>
<td>RELS 0500</td>
<td>The Theory and Practice of Buddhist Meditation</td>
</tr>
<tr>
<td>RELS 0540</td>
<td>Buddhist Psychology</td>
</tr>
<tr>
<td>RELS 0610</td>
<td>Sacrifice and Society</td>
</tr>
<tr>
<td>RELS 0640</td>
<td>Sacrifice and Suffering: Rhetorics of Martyrdom Compared</td>
</tr>
<tr>
<td>RELS 0910</td>
<td>Music, Drama and Religion in India</td>
</tr>
<tr>
<td>RELS 1520</td>
<td>Pilgrimage and Sacred Travel in the Lands of Islam</td>
</tr>
<tr>
<td>RELS 1530A</td>
<td>Methods and Problems in Islamic Studies: Narratives</td>
</tr>
<tr>
<td>RELS 1540</td>
<td>Monks, Mystics and Martyrs: Abrahamic Traditions Compared</td>
</tr>
<tr>
<td>SANS 0100</td>
<td>Elementary Sanskrit I</td>
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<tr>
<td>SANS 0200</td>
<td>Elementary Sanskrit II</td>
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<tr>
<td>SANS 0300</td>
<td>Sanskrit Epic Narrative</td>
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<tr>
<td>SANS 0400</td>
<td>Classical Sanskrit Story Literature</td>
</tr>
<tr>
<td>SANS 1020</td>
<td>Early Sanskrit Philosophy and Religion</td>
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<tr>
<td>SANS 1080</td>
<td>The Critical Episodes of the Mahabharata</td>
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<td>SANS 1100</td>
<td>Vedic Sanskrit</td>
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<tr>
<td>SANS 1400</td>
<td>The Sanskrit Grammatical Tradition</td>
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<td>SANS 1800</td>
<td>Classical Schools of Indian Philosophy</td>
</tr>
<tr>
<td>SANS 1910</td>
<td>Advanced Sanskrit</td>
</tr>
<tr>
<td>SANS 1990</td>
<td>Conference: Especially for Honors Students</td>
</tr>
<tr>
<td>TAPS 1270</td>
<td>Performances in the Asias</td>
</tr>
</tbody>
</table>

1 Two of which may be language courses in Hindi/Urdu or Sanskrit taken in conjunction with the language requirement. This list is not exhaustive, as any class which allows the concentrator to complete a substantial final project on South Asia may be counted towards the concentration requirements. If course rotations or the introduction of new courses warrant, substitutions within these categories may be made with approval of the faculty advisor.

### Language Requirements

Proficiency in a South Asian language is required for the concentration. Students who are not native speakers of a South Asian language may prove proficiency by taking two years of Hindi/Urdu or Sanskrit at Brown, by successfully passing a course at the intermediate (4th semester) level at Brown or the approved equivalent at another institution, or by successfully passing a special examination administered by an approved faculty member. Two courses taken to fulfill the language requirement may be counted among the elective courses required for concentration.

### Study Abroad

All South Asian Studies concentrators are encouraged to take Hindi/Urdu and to participate in Brown in India, a junior-year study abroad program at St. Stephen’s College and Lady Sri Ram College in Delhi. Students can also opt to enroll in any other Brown approved study-abroad program in South Asia.

### Capstone Project

All concentrators other than honors concentrators will designate an upper-level course in the area of their primary focus as their capstone course. The student will take this course during the senior year and will produce as part of the written work for the course a substantial paper or annotated translation displaying the unique focus of his or her concentration.

### Theatre Arts and Performance Studies

The Department of Theatre Arts and Performance Studies (TAPS) is the intellectual and artistic center for the aesthetic, historical, literary, practical, and theoretical explorations of performance in global perspective theatre, dance, speech, time-based art, and even performative roles in everyday life. The TAPS concentration offers three tracks with many points of overlap among them: Performance Studies, Theatre Arts, and Writing for Performance. Concentrators gain exposure to a broad spectrum of performance modes and methods – acting, directing, dance, and writing, and chose an avenue of focus among them. Everyone graduates having studied craft, gained familiarity with history, and investigated the role of performance arts in culture.

### Theatre Arts Track

This concentration combines the study of dramatic literature, theatre history, performance theory, and studio work in the various theatre arts. All concentrators in Theatre Arts will gain practical experience through the study of acting and directing as well as in the technical production of plays, preparing students in the practical study of a cross-section of the vital aspects of theatre craft, including one class in either dance or speech. An essential aim of the concentration track is the engagement of students in performance procedures (acting, dancing, directing, choreography, design, playwriting, dramaturgy, etc.) in order to experience the inter-relationships among social contexts, dramatic texts and theatrical enactments. Along with practical study in craft, concentrators will graduate having studied theatre history and performance theory in global perspective. The study of theatre history provides a Theatre Arts concentrator with the necessary
background to understand a variety of dramatic and theatrical forms. The study of performance theory enhances a student’s ability to ask fundamental questions about the role of theatre in social, political, cultural and cross-cultural arenas. Of the ten courses required, at least four must be in theatre history and dramatic and theatrical theory that forms a backbone for further study in these areas. Students should take at least one course that exhibits geographic or topical breadth beyond what might loosely be called “mainstream” Euro-American tradition. Basic courses in technical theatre and design are required of all students, as is a senior seminar, taken by most students in their seventh semester. The remaining three courses for the concentration may be taken in areas of applied theatre arts (though this is not a requirement); there are sequences of courses available in acting/directing, playwriting, design/technical theatre, and dance. Students wishing to enroll as concentrators in Theatre Arts and Performance Studies and take the Theatre Arts track should see the undergraduate Theatre Arts track advisor, in order to discuss options that will best serve their interests.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0230 Acting</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 0250 Introduction to Technical Theatre and Production</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1230 Performance Theory: Ritual, Play and Drama in Context</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1240 Performance Historiography and Theatre History</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1250 Twentieth-Century Western Theatre and Performance</td>
<td>1</td>
</tr>
<tr>
<td>One course in Dramatic or Performance Literature, Theory, History and/or Criticism offered or cross-listed in the department</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>TAPS 0220 Persuasive Communication</td>
<td>1</td>
</tr>
<tr>
<td>Any dance history or practice course.</td>
<td></td>
</tr>
<tr>
<td>Two electives to be selected from applied areas and/or from relevant theoretical and text-based studies through the university</td>
<td>2</td>
</tr>
<tr>
<td>TAPS 1520 Seminar in Theatre Arts</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

1 At least one course in the mix of a concentrator’s elective requirement’s should demonstrate enhanced geographical breadth.

Performance Studies Track

The Performance Studies track in the Theatre Arts and Performance Studies concentration offers a base for students interested in a variety of performance forms, performance media, or in interмедial art. A concentrator in this track will study the multiple modes in which live performance articulates culture, negotiates difference, constructs identity, and transmits collective historical traditions and memories. Because Performance Studies is not primarily invested in one performance mode over another (such as theatre or dance), a concentrator will gain exposure to a broad spectrum of performance modes. Studying ritual, play, game, festival, spectacle and a broad spectrum of “performance behaviors” under the umbrella of Performance Studies, a concentrator will graduate having investigated the role of performance in culture, including performative acts in everyday life, political enactment, ritual behavior, aesthetic or representational practices, and social role or the performance of subjectivity. The history of aesthetic performance practices (such as the histories of theatre and/or dance) will be an important part of this track, serving to ground inquiry into the broader spectrum of performance study. Students will craft their electives on this track from a wide selection of courses both within the Department of Theatre, Speech and Dance and across the university. The study of performance behavior across mediums such as dance, theatre, ritual, and orature allows for geographic and historical flexibility as not all cultures parse theatre from dance, nor, historically, genres of religious or political ritual from genres of entertainment, play, or games.

At least two of the ten required classes must show geographic or cultural breadth, and be approved as such by the undergraduate concentration advisor. Participation in practical classes in modes of performance is also required.

Students wishing to enroll as concentrators in Theatre Arts and Performance Studies and take the Performance Studies track should see the undergraduate Performance Studies track advisor, in order to discuss options that will best serve their interests.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>TAPS 1230 Performance Theory: Ritual, Play and Drama in Context</td>
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</tr>
<tr>
<td>TAPS 1240 Performance Historiography and Theatre History</td>
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</tr>
<tr>
<td>Select three of the following:</td>
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<tr>
<td>TAPS 1250 Twentieth-Century Western Theatre and Performance</td>
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<tr>
<td>TAPS 1270 Performances in the Asia</td>
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<tr>
<td>TAPS 1330 Dance History: The 20th Century</td>
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<tr>
<td>TAPS 1280N New Theories for a Baroque Stage</td>
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<tr>
<td>TAPS 1280T Contemporary Mande Performance</td>
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</tr>
<tr>
<td>TAPS 1380 Mise en Scene</td>
<td></td>
</tr>
<tr>
<td>TAPS 1430 Russian Theatre and Drama</td>
<td></td>
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<tr>
<td>TAPS 1610 Political Theatre of the Americas</td>
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<tr>
<td>TAPS 1630 Performativity and the Body: Staging Gender, Staging Race</td>
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<tr>
<td>TAPS 1640 Theatre and Conquest in Greater Mexico: From Cortes to NAFTA</td>
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<tr>
<td>TAPS 1650 21st Century American Drama</td>
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<tr>
<td>TAPS 1670 Latina/o Theatre and Performance</td>
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<tr>
<td>TAPS 1690 Performance, Art, and Everyday Life</td>
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<tr>
<td>TAPS 2120 Revolution as a Work of Art</td>
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<tr>
<td>AFRI 0990 Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre</td>
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<tr>
<td>AFRI 1110 Voices Beneath the Veil</td>
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<tr>
<td>AFRI 1120 African American Folk Traditions and Cultural Expression</td>
<td></td>
</tr>
<tr>
<td>Two full credit courses based in performance craft in either Acting, Directing, Speech, Dance, Design, Literary Arts (with a performance emphasis), Visual Arts or Music</td>
<td>2</td>
</tr>
<tr>
<td>Two additional courses in the academic study of performance and performance culture(s) to be culled from those listed above as well as other courses in the Department of Theatre Arts and Performance Studies or throughout the university in consultation with advisor.</td>
<td>2</td>
</tr>
<tr>
<td>TAPS 1520 Seminar in Theatre Arts</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Credits</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

1 One of which must show geographical breadth.
2 These classes must be approved by the concentration advisor.
3 An extensive list of courses that might be considered Performance Studies can be made available to interested students

Writing for Performance Track

Concentrators explore the craft and sensibility of writing for live performance in the broad context of art in a changing society. Moving through a graduated series of skill-based writing classes, students additionally encounter theater history in core courses and focused seminars, engage with the practical aspects of production, and relate theatre to other disciplines. Writing is viewed neither as an alienated cause nor a terminal outpost, but as a co-equal aspect of a creative ecology, sharing space with orature, acting, scenography, ethics, and all fields that focus attention, invoke fascination, and alert the will to the possibilities of transformation.

Ten courses are required: A minimum of two writing-skills classes related to live performance; a writing or composition class outside of live performance (literature, screenplay, computer programming, video editing); a technical production class; a performance-based class; TAPS 1230 and TAPS 1250; one elective drawn from inside or outside the
Students wishing to enroll as concentrators in Theatre Arts and Performance Studies on the Writing for Performance track should see the undergraduate Writing for Performance track advisor, in order to discuss options that will best serve their interests.

**Required Courses**

Select one of the following writing courses: 1

- TAPS 0060 Introduction to Playwriting Workshop
- TAPS 0100 Playwriting I

Select one of the following: 1

- AFRI 1050A Advanced RPM Playwriting
- AFRI 1050D Intermediate RPM Playwriting
- AFRI 1050E RPM Playwriting
- LITR 0610A Unpublishable Writing
- LITR 1150Q Reading, Writing and Thinking for the Stage
- LITR 1010C Advanced Playwriting
- LITR 1150S What Moves at the Margins
- TAPS 0200 Playwriting II

A course from the TAPS 1500 series (A-Z)

Select one of the following writing/composition classes outside of playwriting: 1

- LITR 1010B Advanced Poetry
- LITR 1010D Advanced Electronic Writing
- LITR 1010G Cave Writing
- TAPS 1280F Introduction to Set Design
- TAPS 0250 Introduction to Technical Theatre and Production

One performance-based class. Options include Acting, Directing, Speech, Dance, Visual Arts, Music, or Sign Language.

- TAPS 1230 Performance Theory: Ritual, Play and Drama in Context
- TAPS 1250 Twentieth-Century Western Theatre and Performance

Select two additional Theatre/Performance History/Theory classes: 2

- TAPS 1240 Performance Historiography and Theatre History
- TAPS 1270 Performances in the Asias
- TAPS 1330 Dance History: The 20th Century
- TAPS 1280N New Theories for a Baroque Stage
- TAPS 1280T Contemporary Mande Performance
- TAPS 1380 Mise en Scene
- TAPS 1400 Advanced Performance
- TAPS 1420 Global Queer Performance
- TAPS 1430 Russian Theatre and Drama
- A course from the TAPS 1440 series
- TAPS 2120 Revolution as a Work of Art
- TAPS 2200A Abstraction and Resistance
- TAPS 1610 Political Theatre of the Americas
- TAPS 1630 Performativity and the Body: Staging Gender, Staging Race
- TAPS 1640 Theatre and Conquest in Greater Mexico: From Cortes to NAFTA
- TAPS 1650 21st Century American Drama
- TAPS 1670 Latino/a Theatre and Performance
- TAPS 1690 Performance, Art, and Everyday Life
- AFRI 0990 Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre
- AFRI 1110 Voices Beneath the Veil

**Total Credits:** 10

**For all concentrators, regardless of track:**

In cases where dual concentrations are declared, the Department allows two courses to be counted toward both concentrations.

**Honors**

The standard pattern above, plus an honors thesis (TAPS 1990), the topic of which would be determined before Semester VII. Candidates for the honors program should have an outstanding academic record and should apply to the Department by Semester VI.

**Capstone Experiences:**

The tracks come together in several courses but also in a culminating senior seminar. In addition to the senior seminar there are a wide variety of ways students who concentrate can construct a “capstone” experience—such as directing a production, a solo performance, a design project, an honor’s thesis, or a design project.

**Urban Studies**

The Urban Studies Program seeks to understand the social, economic, demographic, and political consequences of urban development. The program emphasizes the development of students’ powers of analysis and ability to think in an interdisciplinary manner. Urban Studies concentrators take courses in American studies, art, economics, history, history of art and architecture, political science, and sociology. The program has several objectives: to enable students to explore the various issues or problems inherent in urbanization; to provide an excellent background for careers in city planning, architectural design, historical preservation, real estate development, law and business administration and to prepare students for graduate work in urban studies related disciplines. As part of their fieldwork training, students are expected to work with local agencies and non-profit organizations. Summer internships are available for concentrators and students are encouraged to undertake projects involving the study of Providence and nearby cities for their honors thesis projects.

For a concentration, the program requires ten courses selected from four course groups:

**Introduction (choose one):**

- URBN 0210 The City: An Introduction to Urban Studies
- POLS 0220 City Politics

**Research Skills (choose one):**

- ECON 1620 Introduction to Econometrics
- EDUC 1110 Introductory Statistics for Education Research and Policy Analysis
- POLS 1600 Political Research Methods
- SOC 1100 Introductory Statistics for Social Research

**Core Courses (choose three courses covering three of the seven core areas - American Civilization, Economics, History, History of Art and Architecture, Literature, Political Science, and Sociology, from the following):**

- AMST 1520 Technology and Material Culture in America: The Urban Built Environment
- AMST 1530 Technology and Material Culture in America: The Automobile in American Life
- COLT 1810C City (B)Lights
- ECON 1410 Urban Economics
- ENGL 0800A City Novels
- HIAA 0700 Nineteenth-Century Architecture
- HIAA 0840 History of Rhode Island Architecture
- HIAA 0850 Modern Architecture

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0860</td>
<td>Contemporary Architecture</td>
</tr>
<tr>
<td>HIAA 0900</td>
<td>City and Cinema</td>
</tr>
<tr>
<td>HIAA 1850D</td>
<td>Film Architecture</td>
</tr>
<tr>
<td>HISP 1500C</td>
<td>Images of the City: Barcelona through Literature and Art</td>
</tr>
<tr>
<td>HIST 1820</td>
<td>American Urban History to 1870</td>
</tr>
<tr>
<td>HIST 1830</td>
<td>American Urban History, 1870-1950</td>
</tr>
<tr>
<td>POLS 0220</td>
<td>City Politics</td>
</tr>
<tr>
<td>POLS 1320</td>
<td>Urban Politics and Urban Public Policy</td>
</tr>
<tr>
<td>SOC 1330</td>
<td>Remaking the City</td>
</tr>
<tr>
<td>SOC 1640</td>
<td>Social Exclusion</td>
</tr>
<tr>
<td>URBN 1200</td>
<td>The United States Metropolis, 1945-2000</td>
</tr>
</tbody>
</table>

**Seminar courses (choose three)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>AMST 1903E</td>
<td>City of the American Century: The Culture and Politics of Urbanism in Postwar New York City</td>
</tr>
<tr>
<td>EDUC 1650</td>
<td>Policy Implementation in Education</td>
</tr>
<tr>
<td>ENGL 1760F</td>
<td>City, Culture, and Literature in the Early Twentieth Century</td>
</tr>
<tr>
<td>ENGL 1760K</td>
<td>Reading New York</td>
</tr>
<tr>
<td>ETHN 1870A</td>
<td>Ethnic Los Angeles</td>
</tr>
<tr>
<td>HIAA 1910A</td>
<td>Architecture of Downtown Providence from Late Nineteenth Century to the Present</td>
</tr>
<tr>
<td>HIST 1974F</td>
<td>The Urban Crisis and American Political Culture, 1932-1984</td>
</tr>
<tr>
<td>HIST 1974T</td>
<td>Ethnic Los Angeles</td>
</tr>
<tr>
<td>POLS 2220</td>
<td>Urban Politics</td>
</tr>
<tr>
<td>URBN 1000</td>
<td>Fieldwork in the Urban Community</td>
</tr>
<tr>
<td>URBN 1010</td>
<td>Fieldwork in Urban Archaeology and Historical Preservation</td>
</tr>
<tr>
<td>URBN 1420</td>
<td>Urbanization in China</td>
</tr>
<tr>
<td>URBN 1870A</td>
<td>American Culture and the City</td>
</tr>
<tr>
<td>URBN 1870D</td>
<td>Downtown Development</td>
</tr>
<tr>
<td>URBN 1870E</td>
<td>Green Cities: Parks and Designed Landscapes in Urban America</td>
</tr>
<tr>
<td>URBN 1870F</td>
<td>Housing and Homelessness</td>
</tr>
<tr>
<td>URBN 1870H</td>
<td>Rivers and Cities</td>
</tr>
<tr>
<td>URBN 1870I</td>
<td>The Changing American City</td>
</tr>
<tr>
<td>URBN 1870J</td>
<td>The Politics of Community Organizing</td>
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<tr>
<td>URBN 1870M</td>
<td>Urban Regimes in the American Republic</td>
</tr>
<tr>
<td>URBN 1870N</td>
<td>The Cultural and Social Life of the Built Environment</td>
</tr>
</tbody>
</table>

**Complementary Curriculum (choose two from the following options):**

1. Any course from the Introductory or Basic Curriculum options above not used to fulfill another requirement
2. Any of the following:
   - AFRI 0600: Race, Gender, and Urban Politics
   - AFRI 0620: African-American Life in the City
   - AMST 1611A: Making America: Twentieth-Century U.S. Immigrant/Ethnic Literature
   - AMST 1612D: Cities of Sound: Place and History in American Pop Music
   - ARCH 0400: City and Sanctuary in the Ancient World
   - ARCH 1150: Urbanism in the Archaeological Record
   - ARCH 1200F: City and the Festival: Cult Practices and Architectural Production in the Ancient Near East
   - ARCH 1600: Archaeologies of the Near East
   - ARCH 1900: The Archaeology of College Hill
   - ARCH 2020B: Topography of the City of Athens
   - ARCH 2040A: The Cities of the Decapolis
   - COLT 1810H: Tales of Two Cities: Havana - Miami, San Juan - New York
   - A course from the COLT 2820 series
   - EDUC 1150: Education, the Economy and School Reform
   - ENGL 1710i: Harlem Renaissance: The Politics of Culture
   - ENGN 1930S: Land Use and Built Environment: An entrepreneurial view
   - ENVS 1410: Environmental Law and Policy
   - ENVS 1700A: Working with Communities: Cultural Competence and Ethics
   - ENVS 1920: Analysis and Resolution of Environmental Problems/Case Studies
   - ETHN 1890A: Seminar on Latino Politics in the United States
   - GEOL 1320: Introduction to Geographic Information Systems for Environmental Applications
   - GRMN 1660B: Berlin: A City Strives to Reinvent Itself
   - HIAA 0020: Introduction to the History of Architecture and Urbanism
   - HIAA 0490: Urban Modernity and the Middle East
   - HIAA 0550: Florence and Tuscany in the Fifteenth Century
   - HIAA 0560: The Visual Culture of Early Modern Rome
   - HIAA 1200D: Pompeii
   - HIAA 1560C: Renaissance Venice and the Veneto
   - HIAA 1850C: The City of Paris: Urbanism and Architecture from the Tenth through the Twentieth Centuries
   - HIST 1540: Samurai and Merchants, Prostitutes and Priests: Japanese Urban Culture in the Early Modern Period
   - HIST 1670: History of Brazil
   - POLS 1310: African American Politics
   - PPAI 1200: Policy Analysis and Program Evaluation
   - PPAI 1700J: GIS and Public Policy
   - PPAI 1700Q: Urban Policy Challenges
   - PPAI 1700R: Urban Revitalization: Lessons from the Providence Plan
   - SOC 0130: American Heritage: Democracy, Inequality, and Public Policy
   - SOC 1270: Race, Class, and Ethnicity in the Modern World
   - SOC 1540: Human Needs and Social Services
   - SOC 1871F: Principles and Methods of Geographic Information Systems
   - other options with the approval of the concentration advisors
3. RISD courses approved by the Urban Studies Program each semester as applicable to the Urban Studies concentration.

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Any course from the Introductory or Basic Curriculum options above not used to fulfill another requirement</td>
<td></td>
</tr>
<tr>
<td>2. Any of the following:</td>
<td></td>
</tr>
<tr>
<td>3. RISD courses approved by the Urban Studies Program each semester as applicable to the Urban Studies concentration.</td>
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</tr>
</tbody>
</table>

**Total Credits: 10**

1. There are also other statistics courses offered by other departments (e.g., Applied Mathematics, Cognitive Sciences, and Psychology). On occasion, an alternative research skills course may be approved for a specific concentration.
2. The courses provide opportunities to undertake research or fieldwork projects and all qualify as "capstone" experiences.
3. No more than two may be used to satisfy the requirements of this concentration. The RISD course is identified in the student’s record at Brown by a RISD course code.

**Off-Campus Courses:** Some courses taken outside Brown (e.g., in study abroad programs) may be used for credit towards the concentration if the material covered directly corresponds to that taught in Brown courses, or is relevant to the complementary curriculum. Such courses will be approved each semester by the concentration advisor.

**Honors Candidates** For Honors must apply to the Director of the Program in letter form by the middle of the second semester of their junior year.
year. They must include a brief statement of the intended research proposal required for honors, as well as the name of the member of the Urban Studies faculty who would serve as their advisor and with whom they must work closely. They must also arrange for a second advisor/reader. Honors candidates must maintain a high grade record. Twelve courses are required of an Honors concentrator, two in addition to the ten courses required for a standard program. These two courses may be either one research skills course and one thesis preparation (one independent reading and research - URBN 1970, one semester course), or two thesis preparation (URBN 1970, two semesters). The candidate’s thesis and course record must be of outstanding quality, in order to qualify for honors.

Visual Art

The Visual Arts concentration engages in artistic practice across a wide range of media: painting, sculpture, printmaking, drawing, photography, and digital imaging. Courses in art history combine with these to frame the direction of the concentrator’s work and to develop his or her critical thinking skills. Students are encouraged to cultivate an informed and thoughtful individual perspective. Students in the Visual Arts department enjoy cutting-edge facilities and a knowledgeable faculty. These two resources inspire creativity and pleasure in our concentrators while they explore the discipline. Students acquire the intellectual and practical tools to make art as well as to interpret and critique the world of images. Students also have the opportunity to take courses at the neighboring Rhode Island School of Design.

Concentration Program Requirements

<table>
<thead>
<tr>
<th>Introductory Course Requirements:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>VISA 0100 Studio Foundation 1</td>
<td>1</td>
</tr>
<tr>
<td>or VISA 0110 Advanced Studio Foundation</td>
<td>1</td>
</tr>
<tr>
<td>VISA 0120 Foundation Media: Sound and Image 2</td>
<td>1</td>
</tr>
<tr>
<td>HIAA 0010 Introduction to the History of Art and Architecture</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concentration Program Requirements:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>HIAA 0880 Contemporary Art I 3</td>
<td>1</td>
</tr>
<tr>
<td>or HIAA 0890 Contemporary Art II</td>
<td>1</td>
</tr>
<tr>
<td>Six additional studio courses (in addition to VISA 0120) 4</td>
<td>6</td>
</tr>
<tr>
<td>One upper-level History of Art and Architecture course.</td>
<td>1</td>
</tr>
<tr>
<td>One elective course in History of Art and Architecture, Visual Art, Modern Culture and Media 5</td>
<td>1</td>
</tr>
</tbody>
</table>

Senior Thesis Exhibition: which does not carry academic credit, is required for graduation (usually presented during the seventh or eighth semester).

Total Credits: 12

1 VISA 0100 and VISA 0110 do not count as one of the 7 studio concentration requirements; VISA 0100 or VISA 0110 are prerequisites for all studio courses.
2 Qualifies as one of the 7 studio concentration requirements.
3 Should be taken by the first semester of junior year.
4 A minimum of four studio courses must be taken at Brown University. One must be drawing.
5 Certain related courses or acceptable RISD courses may also be approved.

Honors

The project is a two-semester enterprise and counts as two courses taken for graduation credit VISA 1800C (Sem I) and VISA 1990 (Sem II) but will not count as two of the twelve courses needed for the visual art concentration. Students that are planning to complete their degree requirements in December must apply for honors by December 5 of the previous year.