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

## Summer 2018

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<th>Date</th>
<th>Event Description</th>
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</thead>
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<tr>
<td>April 2 - April 12, 2018</td>
<td>Pre-registration for Summer courses.</td>
</tr>
<tr>
<td>April 13 - 18, 2018</td>
<td>Summer registration closed for Fall registration (online via Banner for continuing students).</td>
</tr>
<tr>
<td>April 25 - June 27, 2018</td>
<td>Registration period for Summer courses.</td>
</tr>
<tr>
<td>June 24, 2018</td>
<td>Residence halls open.</td>
</tr>
<tr>
<td>June 25, 2018</td>
<td>Summer Session begins.</td>
</tr>
<tr>
<td>June 27, 2018</td>
<td>Last day to change courses. (All students MUST be in their registered courses by Thursday, June 28.)</td>
</tr>
<tr>
<td>July 4, 2018</td>
<td>Independence Day holiday. No University exercises.</td>
</tr>
<tr>
<td>July 10, 2018</td>
<td>Last day to change grade options.</td>
</tr>
<tr>
<td>Aug 4 - 7, 2018</td>
<td>Reading period.</td>
</tr>
<tr>
<td>August 7, 2018</td>
<td>Last day to drop a course. Last day to initiate a Course Performance Report via ASK.</td>
</tr>
<tr>
<td>Aug 8 - Aug 10, 2018</td>
<td>Final examination period.</td>
</tr>
<tr>
<td>August 10, 2018</td>
<td>Summer Session ends.</td>
</tr>
<tr>
<td>August 11, 2018</td>
<td>Residence halls close.</td>
</tr>
</tbody>
</table>

## Fall 2018

<table>
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<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 1, 2018</td>
<td>Last day for payment of charges.</td>
</tr>
<tr>
<td>Aug. 31, 2018</td>
<td>Beginning of Graduate School Orientation.</td>
</tr>
<tr>
<td>Sept. 1, 2018</td>
<td>Beginning of College Orientation.</td>
</tr>
<tr>
<td>Sept. 4, 2018</td>
<td>Opening Convocation at 4:00 p.m. Registration of new students for the first semester (7:00 pm to midnight).</td>
</tr>
<tr>
<td>Sept. 5, 2018</td>
<td>Classes of the first semester begin. Web registration begins at 8:00 a.m.</td>
</tr>
<tr>
<td>Sept. 6, 2018</td>
<td>First day of RISD Fall Session.</td>
</tr>
<tr>
<td>Sept. 13, 2018</td>
<td>Last day to register for a Fall RISD course without a fee or change a grade option for a Fall RISD course - (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>Sept. 18, 2018</td>
<td>Last day to add a course without a fee. (5:00 p.m. deadline.) The web will be taken down for approximately one hour. Once relaunched, all course adds require Instructor override and will be charged late fee of $15 per course.</td>
</tr>
<tr>
<td>Oct. 2, 2018</td>
<td>Last day to add a course (includes late fee), change from audit to credit, or change a grade option declaration (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>Oct. 9, 2018</td>
<td>Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a No Concentration hold placed against their Banner registration (5:00 pm deadline).</td>
</tr>
<tr>
<td>Oct. 15, 2018</td>
<td>Deadline for students currently on leave to apply for readmission for Semester II.</td>
</tr>
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## Winter 2019

<table>
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<th>Date</th>
<th>Event Description</th>
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<tr>
<td>Dec. 13 - 21, 2018</td>
<td>Final Examination Period.</td>
</tr>
<tr>
<td>Dec. 22, 2018</td>
<td>Winter Session online courses begin.</td>
</tr>
<tr>
<td>Jan. 2, 2019</td>
<td>Winter Session begins (On-Campus and Destination courses).</td>
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</table>
### Spring 2019

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<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1, 2019</td>
<td>Tues.</td>
<td>Last day for payment of charges.</td>
</tr>
<tr>
<td>Jan. 10, 2019</td>
<td>Thurs.</td>
<td>Last day to register for a Winter RISD course without a fee or change a grade option for a Winter RISD course (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>Jan. 21, 2019</td>
<td>Mon.</td>
<td>Martin Luther King, Jr. holiday. No University exercises.</td>
</tr>
<tr>
<td>Jan. 22, 2019</td>
<td>Tues.</td>
<td>Registration of new students for the second semester (4:00 pm to midnight).</td>
</tr>
<tr>
<td>Jan. 23, 2019</td>
<td>Wed.</td>
<td>Classes of the second semester begin. Web registration begins at 8:00 am. Theses of candidates for Masters and Ph.D. degrees in May (on Semester I registration fee) are due.</td>
</tr>
<tr>
<td>Feb. 5, 2019</td>
<td>Tues.</td>
<td>Last day to add a course without a fee. (5:00 p.m. deadline) The web will be taken down for approximately one hour. Once relaunched, all course adds require Instructor override and will be charged late fee of $15 per course.</td>
</tr>
<tr>
<td>Feb. 6, 2019</td>
<td>Wed.</td>
<td>Last day of Winter RISD classes.</td>
</tr>
<tr>
<td>Feb. 14, 2019</td>
<td>Thurs.</td>
<td>First day of RISD Spring Session.</td>
</tr>
<tr>
<td>Feb. 20, 2019</td>
<td>Wed.</td>
<td>Classes resume. Last day to add a course (includes late fee), change from audit to credit, or change a grade option declaration (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>Feb. 21, 2019</td>
<td>Thurs.</td>
<td>Last day to register for a Spring RISD course without a fee or change a grade option for a Spring RISD course (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>March 8, 2019</td>
<td>Fri.</td>
<td>Mid-semester deadline. Last day to change from credit to audit in a course (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>April 1, 2019</td>
<td>Mon.</td>
<td>Deadline for students currently on leave to apply for readmission for Semester I. Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a No Concentration hold placed against their Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>April 1, 2019</td>
<td>Mon.</td>
<td>Classes resume.</td>
</tr>
<tr>
<td>Apr. 1 - Apr. 12, 2019</td>
<td>Mon. - Fri.</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>
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### Important Dates

- **Jan. 16, 2019** Tues. Last day to drop a course or request an incomplete from an instructor. Last day to initiate a Course Performance Report via ASK.
- **Jan. 21, 2019** Mon. Martin Luther King, Jr. holiday. No University exercises.
- **Jan. 22, 2019** Tues. Registration of new students for the second semester (4:00 pm to midnight).
- **Jan. 23, 2019** Wed. Classes of the second semester begin. Web registration begins at 8:00 am. Theses of candidates for Masters and Ph.D. degrees in May (on Semester I registration fee) are due.
- **Feb. 5, 2019** Tues. Last day to add a course without a fee. (5:00 p.m. deadline) The web will be taken down for approximately one hour. Once relaunched, all course adds require Instructor override and will be charged late fee of $15 per course.
- **Feb. 14, 2019** Fri. First day of RISD Spring Session.
- **Feb. 16 - 19, 2019** Sat. - Tues. Long weekend. No University exercises.
- **Feb. 20, 2019** Wed. Classes resume. Last day to add a course (includes late fee), change from audit to credit, or change a grade option declaration (5:00 p.m. deadline).
- **Feb. 21, 2019** Thurs. Last day to register for a Spring RISD course without a fee or change a grade option for a Spring RISD course (5:00 p.m. deadline).
- **Mar. 8, 2019** Fri. Mid-semester deadline. Last day to change from credit to audit in a course (5:00 p.m. deadline).
- **April 1, 2019** Mon. Deadline for students currently on leave to apply for readmission for Semester I. Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a No Concentration hold placed against their Banner registration. (5:00 pm deadline).
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://www.brown.edu/about/administration/registrar/degree-guidelines-0/college) 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/about/administration/registrar/degree-guidelines-0/graduate-school) 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 website at:
http://www.brown.edu/about/administration/registrar/course-enrollment/registration

For a tutorial on registration, see:
https://ithelp.brown.edu/kb/articles/746-students-search-and-register-for-courses-on-courses-brown

To access the most up-to-date course information including credit bearing summer session offerings ("The course information in the PDF versions of the University Bulletin and Course Announcement Bulletin is current as of February 2016,") see:
http://selfservice.brown.edu/menu and select 'Courses@Brown (https://cab.brown.edu)'

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.

Brown follows the Federal standard that defines a credit hour as an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutional established equivalence that reasonably approximates not less than: (1) One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for each semester, or the equivalent amount of work over a different amount of time (i.e. Summer/Winter Sessions); or (2) At least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours. Additionally, transfer credit must equate to the four semester hour standard except for three credit courses taken at the Rhode Island School of Design.

Course Numbering
Courses numbered 0001-0999 are strictly for Undergraduate credit (Graduate students may enroll in such courses with the permission of the instructor and the Graduate School.)

Courses numbered between 1000-1999 are for both Undergraduate and Graduate credit depending on the level of the student's degree program.

Courses numbered between 2000-2999 are for Graduate credit (Undergraduate students may in enroll in such courses and may be applied towards their Undergraduate degree requirements by permission of the instructor.)

Courses numbered above 3000 are strictly for credit in the Alpert Medical School. Certain MD level courses may be taken for credit for Undergraduate students enrolled in the PLME program, but such courses do not count towards quantity, concentration, or Latin honors requirements for the Baccalaureate degree.

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 midsemester.

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, or 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 form 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.

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 should submit either an INC or an NC . If the absence from the examination is excused by the dean, the student will be given the opportunity to take a Special Examination and the original grade will be made into an ABS temporarily. 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.

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.

Repeating Courses: Unless a course is explicitly approved by either the College Curriculum Council or Graduate Council as being able to be repeated for credit, once course credit has been earned with an initial passing grade A,B,C, or Satisfactory (S) or through Transfer Credit it cannot be officially registered for again for in an effort to improve one’s initial grade.

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: Any undergraduate student regularly enrolled in a course, no matter whether for A,B,C, or Satisfactory/No Credit or for Satisfactory/No Credit, may request from the instructor a more detailed written evaluation of the student’s work by way of a Course Performance Report (Note: This form is available online for currently enrolled undergraduates via Advising SideKick (ASK)). Course performance reports provide valuable information to students about their success in meeting course learning objectives, especially for courses graded S/NC. The instructor may decline to submit such a form if they felt they have inadequate information to do so. The deadline for requesting a Course Performance Report is the day before the final exam period begins in the semester of enrollment in the course (Refer to Academic Calendar for relevant deadlines). Late Course Performance Reports may be requested after the deadline and before a student graduates, but the instructor is not obligated to complete a late report. Students may not request a Course Performance Report after completing their degree requirements (although they may contact an instructor directly for a letter of recommendation or a reference at any time). Copies of Course Performance Reports are 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 from the University at the student’s request as part of an official transcript request as long as the student provides such copies to the Office of the Registrar when making the initial transcript request.

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/about/administration/registrar/academic-transcript-requests). 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 2018-2019 is as follows:

Semester I, 2018-2019

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Semester II, 2018-2019

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<td>May 17 F</td>
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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. Please note that students’ travel plans are never an excuse for missing a final exam. Faculty wishing to grant an exam excuse may contact the appropriate academic deans authorized to grant exam excuses. In emergency situations, students who are unable to contact their professors must contact the Office of the Dean of the College, which 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. Students who cannot take a final exam on the scheduled date due to a religious observance must inform the instructors of any conflicts within the first four weeks of the term. In such cases, instructors are expected to offer a final exam on an alternate date within the same semester, noting the policy in the Faculty Rules that final examinations may be given only during the final examinations period. For further information on exams and religious observance please visit https://www.brown.edu/academics/college/support/faculty/religiousobservance.

Community-Based Learning and Research (CBLR) courses connect academic inquiry with real-world learning experiences, enabling students to integrate and transfer their learning to contexts beyond the classroom. CBLR-designated courses: (i) Involve collaboration with one or more community partners to investigate an important social challenge or problem; (ii) Incorporate in-depth community-based experiences (typically undertaken outside of the classroom) into the learning and/or research objectives of the course; (iii) Provide structured opportunities for reflecting on the relationship between classroom learning and real-world experience, with the goals of deepening the understanding of course content and exploring questions of identity, agency, and social responsibility; and (iv) Create products or outcomes that are shared with the community partner and/or broader public.

Plan, DIAP Courses on Race, Gender, and Inequality examine issues of structural inequality, racial formations and/or disparities, and systems of power.

They may investigate:
(i) the ways different forms of power and privilege construct racial and
identity formations in the U.S. and/or globally; the cultural, political, and
intellectual responses to this racialization;
(ii) the production of categories of ethnicity, race, gender, sexual
orientation, class, religion, ability, citizenship status, and geography (and
their intersections);
(iii) the structures, institutions, practices, and attitudes that enable,
maintain, or mitigate domestic and/or global disparities in health, income,
education outcomes, media representations, etc.; and/or
(iv) the production of knowledge and difference in the context of
discourses on race, power, and privilege

A complete list of each semester's DIAP courses may be viewed in
Courses@Brown by choosing “DIAP Courses: Race, Gender, Inequality” 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.

A complete list of each semester’s seminars may be viewed in
Courses@Brown by choosing “First-Year Seminar” 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
dates during pre-registration and shopping periods.

Sophomore Seminars

Sophomore seminars bring together ideas, perspectives, and approaches
that are not normally seen side by side in a given course or program.

Embracing a range of intellectual perspectives, many of the seminars
focus specifically on issues of social justice, identity, and difference.
Limited to twenty students each, the seminars help students develop
the skills, knowledge, and values they need to progress toward more
advanced learning in a discipline or program.

A complete list of each semester’s SOPH seminars may be viewed in
Courses@Brown by choosing “Sophomore Seminar” 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
Courses@Brown by choosing “Writing-Designated Courses” in the Curricular Programs field.

Community-Based Learning and Research

Spring 2019

Modern Greek
MGRK 1210 S01 25732 Migration Crisis? Mediterranea TBD

DIAP Courses: Race, Gender and Inequality

Fall 2018

Africana Studies
AFRI 0090 S01 17078 An Intro to Africana Studies Keisha-Khan Y. Perry
AFRI 0210 S01 17081 Afro Latin Americans Anani Dzidzienyo

AFRI 0670 S01 17086 Global Black Radicalism Brian W E Meeks
AFRI 1060Z S01 17090 Race, Sexuality, Mental Disabi Nic J Ramos
AFRI 1110 S01 17088 Voices Beneath the Veil Elmo Terry-Morgan
AFRI 1210 S01 17082 Afro-Brazils + Brazil Polity Anani Dzidzienyo
AFRI 1968 S01 17084 1968: A Year in Review Francoise N. Hamlin

American Studies
AMST 1600C S01 16196 Anti-Trafficking Savior Complex Elena Shih
AMST 1611A S01 15868 20thC US Immigrant Ethnic Lit Richard Alan Meckel
AMST 1901D S01 15893 Motherhood in Black and White Beverly Haviland

Anthropology
ANTH 0100 S01 16921 Intro to Cultural Anthropology TBD
ANTH 0300 S01 16918 Culture and Health Katherine A. Mason
ANTH 0800 S01 16099 Intro to Linguistic Anthro Lynnette Arnold
ANTH 1240 S01 16924 Religion and Culture William S. Simmons
ANTH 1250 S01 16102 Film/Anthro:Ident/Imag Ind Soc Lina M. Frazzettii
ANTH 1320 S01 16922 Anthro + International Devlpmnt Daniel Smith
ANTH 1624 S01 16103 NE Indians,Colonists,Africans Patricia E. Rubertone
ANTH 1848 S01 16935 Ethnography + Social Critique Matthew C. Gutmann

Classics
CLAS 0765 S01 16933 Witches and Vixens Sasha-Mae Ecleeston
CLAS 1145 S01 16990 Goddesses and Women Gurus David Buchta

Contemplative Studies
COST 0145 S01 15958 Karma, Rebirth and Liberation TBD

East Asian Studies
EAST 0800 S01 17000 Off the Beaten Path Samuel E. Perry
EAST 1940A S01 17003 Crafting Early Modern China Kaijun Chen

Economics
ECON 1530 S01 16785 Health, Hunger + the Household Andrew D. Foster
ECON 1570 S01 16947 The Econ of Latin Americans Pedro Dal Bo
ECON 1590 S01 16789 The Economy of China sinc 1949 Louis Puttermann

Education
EDUC 0600 S01 16936 Youth Civic Engagement Andrea Flores
EDUC 1890 S01 15224 Family Engagement in Education Yoko Yamamoto

English
ENGL 0100S S01 16358 Being Romantic William Keach
ENGL 0150X S01 16356 The Claims of Fiction Olakunle George
ENGL 0700E S01 16354 Postcolonial Literature Olakunle George
ENGL 0710V S01 17123 Death and Dying in Black Lit TBD
ENGL 1511C S01 17122 Lincoln, Whitman + Civil War Philip Gould
ENGL 1511P S01 17124 Realism/Modernism/Postmodern Drayton Nabers
ENGL 1711D S01 17121 Reading New York Tamar Katz
ENGL 1711H S01 17120 Lyric Concepts Ada Smallbegovic
ENGL 1711J S01 16978 Transnational Indigenous Lit Theresa A Warburton
ENGL 1760Y S01 17119 Toni Morrison TBD

Ethnic Studies
ETHN 1000 S01 15897 Intro to Amercn/Ethnic Studies Elizabeth M. Hoover
ETHN 1200G S01 17117 Int ro to Latin/so Cultural Stu Leticia Alvarado
ETHN 1200I S01 17113 Representations of Native ppls Adrienne J. Keene
ETHN 1650B S01 17107 Asian Americans and the Racial Robert George Lee
ETHN 1750A S01 16197 Immigrant Social Movements Kevin A. Escudero

French Studies
FREN 1710G S01 17036 L’Idee de l’empire Justin Izzo

Hispanic Studies
HISP 0730 S01 16402 Latin Am in Its Lit + Culture Iris Montero
HISP 0750P S01 16563 Contemp Social Justice Cinema Sarah L. Thomas

History of Art and Architecture
HIAA 0770 S01 15833 Arch Urbanism African Diaspora Itohan I. Osaymwe
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<td>Islam Today: Religion + Cultur Nancy Khalek</td>
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Brown University

13

CLPS 1960 S01 16991 Senior Seminar in BDS Steven A. Sloman

Computer Science
CSCI 1570 S01 16083 Design/Analysis of Algorithms Paul A. Valiant

Contemplative Studies
COST 0145 S01 15958 Karma, Rebirth and Liberation TBD

Economics
ECON 0510 S01 16843 Development/International Econ Bryce Steinberg
ECON 1200 S01 16626 History of Economic Thought Emily C Skarbek
ECON 1530 S01 16785 Health, Hunger + the Household Andrew D. Foster

Education
EDUC 0400 S01 15217 Amer College/University-1960's Luther Speoehr
EDUC 0410G S01 15220 The Afterschool Hours Hilary L. Levey Friedman
EDUC 1150 S01 15225 Education,Economy,School Refrm John H. Tyler
EDUC 1430 S01 15229 Soc Psych of Race, Class + Gen David E Rangel
EDUC 1740 S01 15218 Academic Freedom on Trial Luther Speoehr
EDUC 1850 S01 15228 Moral Development + Education Jin Li

Engineering
ENGN 1230 S02 16031 Instrumentation Design David A. Borton
ENGN 1010 S03 16026 Entrepreneurial Process TBD
ENGN 1010 S02 16027 Entrepreneurial Process Jason D. Harry
ENGN 1230 S01 16030 Instrumentation Design David A. Borton
ENGN 1230 S02 16031 Instrumentation Design David A. Borton

Environmental Studies
ENVS 0700C S01 15937 Transcending Transptn Impacts Kurt Teichert
ENVS 0710 S01 16012 Powering the Past Bathsheba R Demuth
ENVS 0310A S01 15916 Shakespeare Stephen Merriam Foley
ENVS 131F S01 16977 Transnational Indigenous Lit Theresa A Warburton
ENVS 1900D S01 15930 Literature and Politics William Keach

Ethnic Studies
ETHN 1200G S01 17117 Intro to Latina/o Cultural Stud Leticia Alvarado

French Studies
FREN 0600 S01 16305 Writing and Speaking French II Stephanie A Ravillon
FREN 0600 S02 16306 Writing and Speaking French II Stephanie A Ravillon
FREN 0600 S03 16307 Writing and Speaking French II Stephanie A Ravillon
FREN 0600 S04 16308 Writing and Speaking French II Stephanie A Ravillon
FREN 0610 S01 16473 Writing and Speaking French II Maan Alshoai
FREN 0720E S01 17041 L'art de la nouvelle Thangam Ravindranathan
FREN 1000B S01 16364 Littérature et culture Virginie A. Krause
FREN 1020B S01 17036 History of Romance Languages Gudrun Dorstefai
FREN 1210F S01 17035 L'oeuvre romanesque David Wills
FREN 1310N S01 17037 La Pornographie Laura C F Odello
FREN 1330A S01 16360 Fairy Tales and Culture Lewis C. Seifert
FREN 1410T S01 16512 L'expérience des réfugiés Virginie A. Krause
FREN 1510J S01 16363 Photographie Youenn Yves J Kerwennic
FREN 1710G S01 17036 L'Ideé de l'empire Justin Izzo

Gender and Sexuality Studies
GNSS 0120 S01 16910 Intro Gend/Sexuality Studies Drew Walker

Geological Sciences
GEOG 1300 S01 15198 Ocean Biogeochemical Cycles Timothy D. Herbert
GEOG 1240 S01 15196 Stratigraphy and Sedimentation James M. Russell

German Studies
GRMN 0500F S01 16791 20th Century German Culture Kristina C. Mendicino

Hispanic Studies
HISP 0730 S01 16402 Latin Am in Its Lit + Culture Montero
HISP 0740 S01 16401 Intensive Survey of Spanish Lit Sarah L. Thomas
HISP 1210E S01 17059 History of Romance Languages Mercedes Vaquero

History of Art and Architecture
HIAA 0550 S01 15830 Renaissance Tuscany Evelyn Lincoln
HIAA 0770 S01 15833 Arch Urbanism African Diaspora Itohan I. Osanyinwese
HIAA 1560E S01 15839 The Arts of Renaissance Courts Evelyn Lincoln

History
HIST 0150H S01 15415 Foods and Drugs in History Harold J. Cook
HIST 0250 S01 15400 American Exceptionalism Michael Vorenberg
HIST 0523B S01 15426 State Surveillance in History Holly A Case
HIST 0551A S01 15437 Lincoln in History and Culture Michael Vorenberg
HIST 0654B S01 15512 American/PolishBlack/White Francoise N. Hamlin
HIST 0655A S01 16967 Culture Wars in Am Schools Tracy L. Steffes
HIST 0656D S01 15433 Walden + Woodstock Kenneth S. Sacks
HIST 1156 S01 16992 Postwar Japan Kerry Smith
HIST 1202 S01 15411 Foundations Classical Heritage Kenneth S. Sacks
HIST 1230A S01 15401 Revolution and Romanticism Mary Gluck
HIST 1266C S01 15404 English History, 1529-1660 Tim Harris
HIST 1268C S01 15395 End of USSR, Rise of Russia Ethan M Pollock
HIST 1310 S01 15414 History of Brazil James N. Green
HIST 1556 S01 15519 Making America Modern Lukas B. Rieppel
HIST 1551 S01 15393 American Urban Hist, 1870-1965 Howard P. Chudacoff
HIST 1825L S01 15394 Roots of Mod Science Joan L. Richards
HIST 1962D S01 16995 Japan in the World Kerry Smith
HIST 1963Q S01 15419 Sex, Power, and God Amy G. Remensnyder
HIST 1964F S01 15418 Early Modern Ireland TBD
HIST 1964L S01 16816 Slavery in Early Modern World Adam J Teller
HIST 1968A S01 15423 Approaches to the Middle East Faiz Ahmed
HIST 1969C S01 16809 Debates/Middle Eastern History Shreemati Mitter
HIST 1992 S01 15430 History Honors Workshop Naoko Shibusawa
HIST 1994 S01 16126 History Honors Thesis Part Ii Naoko Shibusawa

Italian Studies
ITAL 0951 S01 16506 Italy-Imagination of Others Suzanne Stewart-Steinberg
ITAL 1010 S01 16507 Dante in English Translation Ronald L. Martinez

Judaic Studies
JUDS 0050A S01 16318 Believers, Agnostics, Atheists David C. Jacobson
JUDS 0050M S01 16319 Judaism and Christianity Adam J Teller
JUDS 0681 S01 16320 Great Jewish Books Michael L. Sattlow
JUDS 1603 S01 16931 On the Margins of the Bible Larry Wills
JUDS 1750 S01 17044 Jews in the World of Islam TBD
JUDS 1753 S01 16322 Blacks and Jews Rachel Rojanski

Literary Arts
LITR 0100A S01 15460 Introduction to Fiction TBD
LITR 0100B S02 16971 Introduction to Fiction TBD
LITR 0100B S01 15461 Introduction to Poetry TBD
LITR 0110A S01 15462 Fiction I TBD
LITR 0110A S02 15463 Fiction I TBD
LITR 0110A S03 15464 Fiction I TBD
LITR 0110B S01 15465 Poetry I TBD
LITR 0110B S02 15466 Poetry I TBD
LITR 0110B S03 15467 Poetry I TBD
LITR 0110D S01 15841 Digital Language Art I TBD
LITR 0210A S01 15843 Fiction Writing II Andrew E. Colarusso
LITR 0210A S02 15844 Fiction Writing II TBD
LITR 0210B S01 15845 Poetry Writing II TBD
LITR 0710 S01 15846 Writers on Writing Seminar Monica M de la Torre
LITR 1010A S01 15847 Advanced Fiction Meredith Steinbach
LITR 1010A S02 16907 Advanced Fiction Hiram F Moody
LITR 1010B S01 15848 Advanced Poetry Monica M de la Torre
LITR 1010D S01 15651 Advanced Digital Language Arts John H. Cayley
LITR 1010G S01 15852 Writing/3D John H. Cayley
LITR 1110N S01 16840 Workshop Potential Lit Peter Gale Nelson
LITR 1110S S01 16834 Fiction into Film Meredith Steinbach
LITR 1150A S01 16842 Ecopoetics in Practice Eleni A Sikelianos
LITR 1150M S01 15853 Short Fiction Experiments Thalia L. Field

Music
MUSC 0021F S01 16770 Popular Music in Latin America Christopher Joshua Tucker
MUSC 0021G S01 16758 Duke Ellington Matthew Richards McGarrell
MUSC 1920 S01 16769 Music and Modern Life Marc A. Perlman

Philosophy
PHIL 0030 S01 15798 Skepticism and Knowledge Felicia Nimue Ackerman
PHIL 0140 S01 16994 Intro to Buddhist Philosophy Mary Doreen Renaud
PHIL 0350 S01 15797 Ancient Philosophy Mary Louise G. Gill
PHIL 0400 S01 15817 Marxism Charles Larmore
PHIL 0560 S01 15792 Political Philosophy David Estlund
PHIL 1400 S01 15800 Ethics in the Novel Felicia Nimue Ackerman
PHIL 1520 S01 15802 Consciousness Christopher S. Hill
PHIL 1750 S01 15796 Epistemology David P. Christensen

Physics
PHYS 0100 S01 16449 Nature/Meaning Sci Explanation TBD

Political Science
POL S 0820U S01 15546 Drug War Politics Peter R. Andreas
POL S 1820E S01 17067 Pragmatism and Political Fakt Melvin L Rogers
POL S 1820F S01 17068 Black Protest: Theory and Prax Juliet Hooker
POL S 1822N S01 15592 Freedom Sharon R. Krause
POL S 1822W S01 15680 Congressional Investigations Jeffrey S Robbins
POL S 1823G S01 15599 Women and War Rose McDermott
POL S 1824J S01 15595 Culture, Identity and Developm Prerna Singh
POL S 1824K S01 15608 The American Welfare State in Margaret M. Weir
POL S 1910 S01 16324 Senior Honors Thesis Preparatn Wendy J. Schiller

Portuguese and Brazilian Studies
POBS 0040 S01 16327 Writing + Speaking Portuguese Naomi Parker
POBS 0810 S01 16329 Cross-Cultural Identities Patricia I. Sobral
POBS 0910 S01 16333 On the Dawn of Modernity Onesimo T. Almeida
POBS 1030 S01 16330 Adv Lang Study/Creative Wrtng Leonor Simas-Almeida

Public Health
PHP 0500 S01 16849 Pain and the Human Condition Nisha Gupta Trivedi
PHP 1070 S01 15517 Brd of Disease in Devel Cntry Stephen T. McGarvey
PHP 1910 S01 15495 Public Health Senior Sem Jasjit Singh Ahluwalia

Public Policy
PLCY 0100 S01 15667 Introduction to Public Policy TBD
PLCY 1822 S01 17051 Brown in DC Reflection Seminar Allen S. Hance

Religious Studies
RELS 0090K S01 15492 Christmas in America Daniel Vaca
RELS 0110 S01 15499 Christians Susan Ashbrook Harvey
RELS 0145 S01 15957 Karma, Rebirth and Liberation TBD
RELS 0290D S01 15501 Islamic Sexualities Nancy Khalek
RELS 0290H S01 16957 Defense Against the Dark Arts TBD
RELS 1000 S01 15524 Methods in Religious Studies Paul E. Nahme
RELS 1325D S01 15525 Desire and the Sacred Susan Ashbrook Harvey

Russian
RUSS 0320C S01 15283 Demons and Angels Michal Oklot
RUSS 1290 S01 15286 Russian Lit in Translation I Alexander Levitsky
RUSS 1440 S01 16948 Imagining Moscow Fabrizio Fenghi
RUSS 1820 S01 15287 Dostoevsky Vladimir Golstein
RUSS 1840 S01 15288 Nabokov Michal Oklot
RUSS 1917 S01 15284 Communism and Soviet Literatur Vladimir Golstein

Science, Technology, and Society
STS 0700B S01 16156 Science and Social Controversy Jeffrey S. Poland
STS 1900 S01 16155 Sr Sem in Science and Society Jeffrey S. Poland

Sociology
SOC 0020 S01 16445 Perspectives on Soc Interactn Gregory C. Elliott
SOC 1010 S01 15590 Classical Sociological Theory Pagel Henry
SOC 1620 S01 15589 Globalization/Social Conflict Patrick G. Heller
SOC 1870E S01 16810 Alternatives to Violence Gregory C. Elliott
SOC 1950 S01 16608 Senior Seminar Carrie E. Spearin

Theatre Arts and Performance Studies
TAPS 0100 S01 16734 Playwriting I TBD
TAPS 0100 S02 16736 Playwriting I Elmo Terry-Morgan
TAPS 0200 S01 16720 Playwriting II TBD

University Courses
UNIV 0701 S01 17040 Fascism: 1933-Present Paul E. Nahme

Urban Studies
URBN 0210 S01 15479 The City:Intro to Urban Study Samuel Zipp
URBN 1870D S01 15205 Downtown Development Robert E. Azar
URBN 1870M S01 15246 Urban Regimes in Amer Republic Marion E. Orr

Visual Art
VISA 1800C S01 17101 Honors Seminar Wendy Edwards

Spring 2019

Africana Studies
AFRI 0550 S01 25626 African American Health Activi Nic J Ramos

American Studies
AMST 1900P S01 24571 Essaying Culture Ralph E. Rodriguez
AMST 1905N S01 24390 War + Mind in Modern America Debbie Weinstein

Anthropology
ANTH 0680 S01 24477 Anthropology of Food Jessaca B. Leinaweaver
ANTH 1111 S01 25504 Anthropology of China Katherine A. Mason
ANTH 1242 S01 25505 Bioethics and Culture Katherine A. Mason

 Assyriology
ASYR 0310 S01 25007 Gods and Dragons Felipe A. Rojas Silva
ASYR 1700 S01 25009 Astronomy/Divination/Politics John M. Steele

BioMed-Neuroscience
NEUR 1040 S01 25202 Introduction to Neurogenetics Karla Kaun
NEUR 1600 S01 25185 Experimental Neurobiology John J. Stein
NEUR 1600 S02 25672 Experimental Neurobiology John J. Stein

Biology
BIOL 0160 S01 25196 Plants, Food, and People Peter Heywood
BIOL 0430 S01 25274 Evolution of Plant Diversity Fred V Jackson
BIOL 1900 S01 25551 Animal Locomotion Sharon M. Swartz

Business, Entrepreneurship and Organizations
BOE 1940A S01 24177 BEO Capstone II TBD
BOE 1940B S01 24178 BEO Capstone II Steven F. Petteruti

Chemistry
CHEM 1450 S01 24910 Advanced Organic Chemistry TBD

Clasnces
CLPS 0090 S01 24547 The World of Byzantium Efstratios Papaioannou
CLPS 0855 S01 24546 The Bhagavad Gita David Bucht
CLPS 1120U S01 24750 Presidents/Western Tradition Joseph Michael Pucci
CLPS 1320 S01 24525 Roman Hist II: Empire's Impact John P. Bodel

Cognitive, Linguistic and Psychological Sciences
CLPS 1390 S01 25088 Linguistic Field Methods Scott H AnderBois
CLPS 1480B S01 25104 Cognitive Aging and Dementia Elena Festa
CLPS 1510 S01 25111 Auditory Perception Andrea Megela Simmons
Computer Science
CSCI 1951F S01 24468 Computers, Freedom and Privacy Timothy H. Edgar

Contemplative Studies
COST 0100 S01 24231 Intro to Contemplative Studies Harold D. Roth
COST 0425 S01 24436 The History and Practice of Yo TBD

Czech
CZCH 0320A S01 25172 Czech Animation Masako Ueda Fidler

East Asian Studies
EAST 0500 S01 24333 Childhood and Culture in Japan Samuel E. Perry
EAST 1951B S01 25553 From Desktop to Stage Kaajun Chen

Economics
ECON 1355 S01 25432 Environ Issues in Development Andrew D. Foster
ECON 1400 S01 25434 The Economics of Mass Media Jesse M. Shapiro

Education
EDUC 0610 S01 24157 Brown v. Board of Education Tracy L. Steffes
EDUC 1650 S01 24231 Policy Implementatn in Educatn TBD
EDUC 1730 S01 24139 Amer Higher Ed in Hist Contxt Luther Spoehr
EDUC 1860 S01 24150 Soc Context of Learning/Devel Jin Li

Egyptology
EGYT 1410 S01 25011 Ancient Egyptian Literature Leo Depuydt

Engineering
ENGN 0120A S01 25293 Crssng Consumr Chasm by Desgn Richard D. Floter
ENGN 0120B S01 25294 Crssng Soc Chsm Thr Engn Desgn Richard D. Floter
ENGN 1010 S01 24609 Entrepreneurial Process Daniel E. Warshay
ENGN 1010 S02 24610 Entrepreneurial Process Raz Slutsky

English
ENGL 0200C S01 25665 Visionaries, Dreamers ilan Uri Ben-Meir
ENGL 0200D S01 25667 Women of Color, Migration Lubabah Rashid Chowdhury
ENGL 0200E S01 25666 (Victorian) Flesh Soomin Kim

Environmental Studies
ENVS 1914 S01 25511 History Env Change in China Brian G Lander
ENVS 1925 S01 24427 Energy Policy and Politics Dawn King

Ethnic Studies
ETHN 1200D S01 24570 Latina/o Literature Ralph E. Rodriguez
ETHN 1750M S01 25660 Rdg the Wrld - Asian Am Lit Daniel Kim

French Studies
FREN 0000 S01 24262 Writing and Speaking French II Yevn Yves J Kervennec
FREN 0000 S02 24263 Writing and Speaking French II Yevn Yves J Kervennec
FREN 0800 S03 24264 Writing and Speaking French II Yevn Yves J Kervennec
FREN 0800 S04 24265 Writing and Speaking French II Yevn Yves J Kervennec
FREN 0720F S01 25601 Paradigms of Difference Gretchen Schultz
FREN 0820A S01 25483 Identité et diffrence Justin Izzo
FREN 1040B S01 24880 Théâtre du XVIIIe siècle Lewis C. Seifert
FREN 1330E S01 25606 Transatlanticmanifestations David Willis
FREN 1410R S01 25500 Images d'une guerre sans nom Ourida Mostefai
FREN 1500L S01 25605 French-American (Dis)Connect Lewis C. Seifert

Geological Sciences
GEOL 0240 S01 24130 Earth:Evolution of Habitl Planet Timothy D. Herbert
GEOL 0850 S01 24129 Weather and Climate Meredith K. Hastings
GEOL 1150 S01 25546 Limnology: The Study of Lakes James M. Russell
GEOL 1450 S01 25543 Structural Geology Greg Hirth
GEOL 1520 S01 25545 Ocean Circulation and Climate Baylor Fox-Kemper

German Studies
GRMN 0400 S01 24782 Intermediate German II Jane Sokolosky
GRMN 0400 S02 24783 Intermediate German II Jane Sokolosky
GRMN 0600B S01 24874 Was ist Deutsch? Thomas W. Kniesche
GRMN 0750E S01 24850 Reading Film: An Introduction Zachary Sng

Hispanic Studies
HISP 0760 S01 24823 Transatlantic Crossings TBD
HISP 1290J S01 24826 80 Years of Spanish Cinema Sarah L. Thomas
HISP 1700B S01 25145 Rhythm and Silence: A Creative Luis Miguel Estrada Orozco

History of Art and Architecture
HIAA 0021 S01 24444 Arts of Asia Jeffrey Moser
HIAA 0050C S01 25684 Illustrating Knowledge Evelyn Lincoln
HIAA 0630 S01 24447 Cultural History of the Nether Jeffrey M. Muller
HIAA 0710 S01 24446 The Other History of Med. Arch Itohan I. Osayimwese

History
HIST 0252 S01 24643 The American Civil War Michael Vorenberg
HIST 0276B S01 25593 Science and Capitalism Lukas B. Rieppel
HIST 0286B S01 24509 History of Medicine II Harold J. Cook
HIST 0286B S02 25602 History of Medicine II Harold J. Cook
HIST 0537A S01 24579 Popular Culture/Latin America Jennifer L. Lambe
HIST 0576A S01 24515 The Arctic: Global History Bathsheba R Demuth
HIST 0621B S01 24506 The Search for King Arthur Jonathan P. Conant
HIST 0654A S01 24637 Welfare States Robert O. Seif
HIST 1030 S01 24542 South African Entanglements Nancy J. Jacobs
HIST 1211 S01 24634 Europe in High Middle Ages Amy G. Remensnyder
HIST 1230B S01 24531 Fin-de-Siecle Europe Mary Gluck
HIST 1260D S01 24535 British History, 1860-1800 Tim Harris
HIST 1956A S01 25600 Thinking Historically Kenneth S. Sacks
HIST 1961C S01 25603 China's Examination Hellen Cynthia J. Brokaw
HIST 1964B S01 24588 Enchanted World: Early Mod Eur Tara E. Nummedal
HIST 1964D S01 24534 Women in Early Modern England Tim Harris
HIST 1972A S01 24642 American Legal Hist. 1760-1920 Michael Vorenberg
HIST 1974M S01 24641 Early Modern Globalization Adam J Teller
HIST 1976G S01 24541 Animal Histories Nancy J. Jacobs
HIST 1992 S01 24638 History Honors Workshop Naoko Shibusawa
HIST 1994 S01 24640 History Honors Thesis Part II Naoko Shibusawa

Japanese
JPN 1310 S01 24339 Japanese Linguistics Kikuko Yamashita

Judaic Studies
JUDS 0061 S01 25167 Foreigner, Refugee, + Minority Paul E. Nahme
JUDS 0902 S01 25168 History of the Holocaust Adam J Teller
JUDS 1711 S01 25682 History of Israel Rachel Rojanski
JUDS 1718 S01 25201 Modernity and Jews Paul E. Nahme

Literary Arts
LITR 0100A S01 24378 Introduction to Fiction TBD
LITR 0100A S02 24522 Introduction to Fiction TBD
LITR 0100B S01 24379 Introduction to Poetry TBD
LITR 0110A S01 25412 Fiction I TBD
LITR 0110A S02 25413 Fiction I TBD
LITR 0110A S03 25414 Fiction I TBD
LITR 0110B S01 25415 Poetry I TBD
LITR 0110B S02 25416 Poetry I TBD
LITR 0110B S03 25417 Poetry I TBD
LITR 0110D S01 25418 Digital Language Art I TBD
LITR 0210A S01 25420 Fiction Writing II Joanna E. Howard
LITR 0210A S02 25421 Fiction Writing II TBD
LITR 0210B S01 25422 Poetry Writing II TBD
LITR 0710 S01 25333 Writers on Writing Seminar Eleni A Sikelianos
LITR 1010A S01 25329 Advanced Fiction Meredith Steinbach
LITR 1010B S01 25332 Advanced Poetry Peter Gale Nelson
LITR 1010G S01 24372 Writing3D John H. Cayley
LITR 1150B S01 24376 Foreign Home: Interdisc Arts Thalia L. Field
LITR 1151U S01 25498 Literature Puertorriqueña Andrew E. Colarusso
LITR 1231A S01 25410 Time Mechanics/Poetry as Trans Monica M de la Torre
LITR 1231E S01 24373 Rereading Writing John H. Cayley
Modern Culture and Media
MCM 0150 S01 24883 Text/Media/Culture Ariella Azoulay

Philosophy
PHIL 0010 S01 24343 The Place of Persons David P. Christensen
PHIL 0160 S01 25592 Intro to Pain and Suffering Louis Gularte
PHIL 0170 S01 25591 College Ethics Harrison James Gordon Chalmers
PHIL 0360 S01 24355 Early Modern Philosophy Justin Broackes
PHIL 0450 S01 24341 The Meaning of Life Charles Larmore
PHIL 0880 S01 24353 Ethical Themes Amer Short Story Felicia Nimue Ackerman
PHIL 1600 S01 24357 Philosophy of Law David Estlund

Physics
PHYS 0560 S01 24843 Experiments in Modern Physics TBD
PHYS 1560 S01 24846 Modern Physics Laboratory TBD
PHYS 1600 S01 24847 Computational Physics TBD

Political Science
POLS 0110 S01 24257 Intro to Political Thought Melvin L Rogers
POLS 1820H S01 24241 Contraband Capitalism Peter R. Andreas
POLS 1821L S01 24248 IR: Russia, Europe and Asia Linda J. Cook
POLS 1821S S01 24273 Women and Politics Katherine Tate
POLS 1822K S01 24283 Laws of Violence TBD
POLS 1822X S01 24244 Technology + International Pol Jordan N. Branch
POLS 1823W S01 24258 American Political Thought Melvin L Rogers
POLS 1824B S01 24242 Post Conflict Politics Robert A. Blair
POLS 1824G S01 24247 Farms, Fisheries, and Politics Ross E. Cheit
POLS 1824M S01 25599 Pol of Race + Criminal Justice Paul F Testa
POLS 1920 S01 24669 Senior Honors Thesis Preparatn Wendy J. Schiller

Portuguese and Brazilian Studies
POBS 0400 S01 24735 Writing + Speaking Portuguese Naomi Parker
POBS 0620 S01 24740 Map Portuges-Speak Cltr:Prtugl Leonor Simas-Almeida
POBS 0990 S01 24738 Mapping Cross-Cult. Identities Patricia I. Sobral
POBS 1080 S01 24736 Brazil: Lang/Theater/Culture Patricia I. Sobral

Public Health
PHP 0030 S01 24928 Health of Hispaniola Timothy M. Empkie

Public Policy
PLCY 1822 S01 25638 Brown in DC Reflection Seminar Allen S. Hance

Religious Studies
RELS 0015 S01 24219 Sacred Stories Susan Ashbrook Harvey
RELS 0045 S01 24220 Buddhism and Death Jason A Protass
RELS 0068 S01 24221 Religion and Torture Stephen S. Bush
RELS 0525 S01 24435 The History and Practice of Yo TBD
RELS 0600A S01 24223 Islam Today: Religion + Culture Nancy Khalek
RELS 0845 S01 24224 Religious Freedom in America Daniel Vaca

Russian
RUSS 1300 S01 24197 Russian Lit in Translation II Vladimir Golstein

Science, Technology, and Society
STS 1000 S01 24554 Theories and Controversies Joan L. Richards

Theatre Arts and Performance Studies
TAPS 0100 S01 25267 Playwriting I TBD
TAPS 1240 S01 25268 Perform Histriogrph/Theatr Hist Leon J A Hilton
TAPS 1250 S01 25269 20th-Cent W Theatre/Performanc Rebecca Schneider

University Courses
UNIV 1520 S01 24742 The Shaping of World Views Onesimo T. Almeida

Urban Studies
URBN 1000 S01 24212 Fieldwrk in the Urban Community Jan Mateusz Pacewicz
URBN 1870J S01 24168 Poltics of Community Organizing Marion E. Orr
URBN 1870Q S01 24215 Cities Mind: Mod Urb Thought Samuel Zipp
URBN 1870S S01 24214 The City, the River, + the Sea Rebecca Carter

Visual Art
VISA 1800P S01 25651 Art/Work: Professional Practice Heather Darcy Bhandari
**Course Descriptions**

**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. DPLL WRIT Fall AFR0090 S01 17078 TTh 9:00-10:20(02) (K. Perry)

**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. DPLL Fall AFR0210 S01 17081 TTh 2:30-3:50(03) (A. Dzidzienyo)

**AFRI 0550. African American Health Activism from Emancipation to AIDS.**
This historical survey course examines African American activism and social movements from Emancipation to the contemporary period through the lens of African American access to health resources. By paying close attention to how social and cultural aspects of medical practice access and quality of care by race, gender, and sexuality, the course examines how segregation, poverty, incarceration, and policing shaped activism and healthcare. The course develops a sense of how African American activists crafted responses to different historical crises including Reconstruction, Jim Crow, Civil Rights, and the War on Drugs by the demands they made for specific resources. FYS WRIT DPLL Spr AFR0550 S01 25626 TTh 2:30-3:50(11) (N. Ramos)

**AFRI 0610. Black Student Protest from Jim Crow to the Present.**
This is a history-driven class about black student protest. It puts this history in direct dialogue with other kinds of student protests over the long twentieth century. The point of the class is to ground conversations about contemporary protest culture in a deeper historical context that extends well beyond Brown, that moves into the deep history of higher education and education more generally, and that reveals the intersection of protest with other global, national, and local politico-economic landscapes. It is, as well, meant to think about how all of these histories have been represented popularly and politically in the very recent past. DPLL FYS Spr AFR0610 S01 25612 MWF 9:00-9:50(02) (M. Guteri)

**AFRI 0670. Global Black Radicalism.**
The decade from the mid-Sixties until the mid-Seventies witnessed the rise of Black Radicalism as a global phenomenon. The emergence of Black Power in the US, Brazil and the Caribbean, the consolidation of liberation struggles in Portuguese Africa and the rise of a Black Consciousness trend in Apartheid South Africa all represent key moments. What led young activists to embrace “Black Power”? What led to the emergence of Marxist movements in Portuguese Africa? What events in the Caribbean gave ascendancy to radical tendencies? And what forces contributed to the decline of these movements? This course seeks to answer these questions. DPLL SOPH Fall AFR0670 S01 17086 Th 4:00-6:30(04) (B. Meeks)

**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. DPLL Spr AFR1020C S01 25610 Th 4:00-6:30(17) (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. Fall AFR1020D S01 17079 M 3:00-5:30(05) (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. DPLL Spr AFR1050A S01 25623 Th 4:00-6:30(17) (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). DPLL Spr AFR1050D S01 25624 Th 4:00-6:30(17) (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). DPLL Spr AFR1050E S01 25625 Th 4:00-6:30(17) (E. Terry-Morgan)

**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. DPLL Spr AFR1060E S01 25611 W 3:00-5:30(10) (A. Dzidzienyo)

**AFRI 1060U. An Introduction to Africa.**
Africa invokes myriad images in the global imagination. It figures in debates on the evolution of humans; in the formation of capitalism, and even as a counterpoint to discourses on human progress. This course interrogates how “Africa” gets mobilized in popular discourse in the US and beyond. How might we reconcile the idea of Africa with contemporary conditions of the African continent? We will not only examine Africa through a broad range of disciplinary perspectives; but also become familiar with social, cultural, political and economic diversity of the African continent. We will engage the disciplines of history, economics, politics, cultural studies and gender studies among others. Fall AFR1060U S01 17103 F 3:00-5:30(11) (O. Ayobade)

**AFRI 1060Z. Race, Sexuality, and Mental Disability History.**
This seminar investigates the fraught entanglement of mental disability with race and homosexuality beginning with late 19th Century ideas of scientific racism and the invention of the homosexual body in African American communities. By tracking changes in Psychiatry and Psychology through the 1960s and 1970s, the course examines the impact of the Civil Rights and Gay Rights movements on sustaining contemporary mental health diagnosis of “gender dysphoria” associated with Trans people. The course will further examine several approaches to queer, trans, and gay history from the fields of color critique, black feminism, and disability studies. Enrollment limit is 20. DPLL Fall AFR1060Z S01 17090 T 4:00-6:30(09) (N. Ramos)
Lecture course that examines the extended history of the mass civil rights movement in the U.S. Starting at World War II, we consider the roles of the courts, the federal and state governments, organizations, local communities, individuals and various activist strategies in the ongoing struggle for African American equality, focusing on African American agency, particularly in the South, but also in Boston, Mass. Sources include photographs, documentaries, movies, letters, speeches, autobiographies, and secondary readings. Requirements: Weekly readings, documentary viewings, 4 short papers, 2 exams. DPLL
Spr AFRI1090 S01 25613 TTh 10:30-11:50(09) (F. Hamlin)

AFRI 1110. Voices Beneath the Veil.
VBV is an interdisciplinary exploration of African-American history and cultures through the analyses of Black authored plays from 1858 to the present. The course focuses on the development of a thesis paper, which includes an incremental re-writing process. WRIT DPLL
Fall AFRI1110 S01 17088 TTh 10:30-11:50(13) (E. Terry-Morgan)

AFRI 1150. Afro-Caribbean Philosophy.
An introduction to the field of Afro-Caribbean philosophy. The first half focuses on the history of the field, identifying its African background and surveying some of its major schools, such as the Afro-Christians, the poeticians, the historicists, and existentialists. The second half consists of a more intensive comparative focus on the ontologies and epistemologies of two of these schools. DPLL
Spr AFRI1150 S01 25614 MWF 2:00-2:50(07) (P. Henry)

AFRI 1210. Afro-Brazilians and the Brazilian Polity.
Explores the history and present-day conditions of Afro-Brazilians, looking specifically at the uses of Africana in contemporary Brazil, political and cultural movements among Afro-Brazilians, domestic politics and its external dimensions, and Brazilian race relations within a global comparative framework. Texts from a variety of disciplines. A reading knowledge of Portuguese is not required but students so advantaged should inform the instructor. DPLL
Fall AFRI1210 S01 17082 W 3:00-5:30(17) (A. Dzidzienyo)

AFRI 1360. Africana Studies: Knowledge, Texts and Methodology.
This course will explore the issues of Africana Studies as a discipline by engaging in a series of critical readings of the central texts, which laid the protocols of the discipline. The course will also raise issues of knowledge production and methodologies. This course is a senior capstone seminar. Open to all senior Africana Studies concentrators; others by instructor permission only. Enrollment limited to 25. DPLL
Spr AFRI1360 S01 25615 M 3:00-5:30(13) (B. Meeks)

AFRI 1968. 1968: A Year in Review.
In 1968 students’ walk-out at Brown, leading to the 1969 creation of the Rites and Reason Theatre and later the formation of Afro-American Studies, now the Department of African Studies/Rites and Reason Theatre. 1968 was also a global year of contention, confrontation and change, with consequences that continue to resonate into the present. This class harnesses the multiple narratives and studies of our faculty across the campus and alumni who took part in the 1968 walk-out. Classes blend lecture and discussion. Speakers assign appropriate reading to coincide with their topics. Requirements include mandatory participation to planned anniversary events.
Fall AFRI1968 S01 17084 TTh 1:00-2:20(10) (F. Hamlin)

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 17085 W 10:00-12:30 (P. Henry)

A preoccupation of Africana Studies involves the central, 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 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 play a central role in literary, musical, philosophical, aesthetic, historical and sociological analyses of the culture of people of African descent frame this graduate course.
Spr AFRI2002 S01 25609 F 10:00-12:30 'To Be Arranged'

AFRI 2104. Theorizing the Black Diaspora.
This seminar will focus on the theorization of the black diaspora as a way to explore the various articulations of colonialism, gendered racism and resistance against that racism throughout African-descendant communities. Course readings will highlight the scholarship of black women who have contributed to the internationalization of radical black vis-a-vis theories of diaspora, transnationalism, transformative politics, identity formation, and community. This course is open to upper level concentrators in Africana Studies by permission of instructor. Enrollment limited to 20.
Spr AFRI2104 S01 25616 W 10:00-12:30 (K. Perry)

AFRI 2450. Exchange Scholar Program.
Fall AFRI2450 S01 15089 Arranged 'To Be Arranged'

AFRI 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.
Fall AFRI2970 S01 15090 Arranged 'To Be Arranged'
Spr AFRI2970 S01 24044 Arranged 'To Be Arranged'

AFRI 2980. Graduate Level Independent Reading and Research.
A program of intensive reading and research. Section numbers may vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

AFRI 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.
Fall AFRI2990 S01 15091 Arranged 'To Be Arranged'
Spr AFRI2990 S01 24045 Arranged 'To Be Arranged'

AFRI XLIST. Courses of Interest to Concentrators in Africana Studies.
American Studies

AMST 0150E. Skill: From Flint-knapping to the Maker Movement. What does it mean to be skilled? How do mechanical and material knowledge, expertise in the use of tools, and physical ability allow us to make and repair things? How do actions, words, images and artifacts embody skills? How do skills fit into social and cultural settings? How have ideas about skills changed over time? In this course we will read the writings of skilled craftspeople, scholars, and cultural critics; observe skilled practitioners in a variety of areas; learn new skills, and write about them.

Fall AMST0150ES01 15904 TTh 10:30-11:50(13) (S. Lubar)

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. DPLL

Spr AMST1010 S01 24628 MWF 11:00-11:50(04) (M. Guterl)

AMST 1500A. Research and Transnational Communities: Qualitative Fieldwork Methods. This course will equip students with the skills to design and implement their own transnational American Studies or Public Humanities research project. We will consider different qualitative social science research methods including, ethnographic participant observation, formal and informal interview techniques, and survey data analysis. Students will learn how different methodologies lend unique insights into specific research questions, and will be able to identify different methodological bases for empirical findings across diverse transnational social problems. Throughout the course, we will explicitly engage the personal, public, and ethical concerns involved with conducting research with transnational communities, including researcher positionality, privilege, ethics, and responsibility.

Fall AMST1500AS01 16195 M 3:00-5:30(05) (E. Shih)

AMST 1600C. The Anti-Trafficking Savior Complex: Saints, Sinners, and Modern-Day Slavery. How can we understand the global movement to combat human trafficking within critical frameworks on "industrial complexes"? Drawing from scholarship on the prison industrial, non-profit industrial, and white savior complexes this course examines human trafficking through the lens of race, class, gender, and national forms of power and subjectivity. Readings will problematize the so-called saints and sinners of the movement, investigating various global helping projects that exist to stop "modern day slavery." DPLL

Fall AMST1600C S01 16196 MWF 12:00-12:50(12) (E. Shih)

AMST 1601. Health and Healing in American History. Surveys the history of American medicine in its social and political contexts, including changing understandings of disease, treatment practices, and medical institutions. Focuses on how gender and race have informed how patients and healers have made sense out of pain and disease. WRIT

Fall AMST1601 S01 15903 MWF 11:00-11:50(16) (D. Weinstein)

AMST 1611A. Making America: Twentieth-Century U.S. Immigrant/ Ethnic Literature. Examines the literature of first and second generation immigrant/ethnic writers from 1900 to the 1970's. Attempts to place the individual works (primarily novels) in their literary and sociocultural contexts, examining them as conscious works of literature written within and against American and imported literary traditions and as creative contributions to an ongoing national discourse on immigration and ethnicity. DPLL

Fall AMST1611AS01 15898 TTh 2:30-3:50(03) (R. Meckel)

AMST 1611M. Trauma and the Shame of the Unspeakable: The Holocaust, American Slavery, and Childhood Sexual Abuse. The problem of representing traumatic experience has been raised by witnesses and survivors, psychoanalysts, psychologists, sociologists, philosophers, and artists. This course compares three historical situations--The Holocaust, American slavery, and childhood sexual abuse--by reading histories, memoirs, and fictions, and analyzing material cultural artifacts such as memorials. Questions about the relation of individual trauma to collective and cultural trauma will be pursued through readings that will include Freud, Jeffrey Alexander, Judith Herman, Dominique La Capra, Primo Levi, Jill Christman, Harriet Jacobs, Tony Morrison, Gayle Jones and Art Spiegelman.

Spr AMST1611M S01 24381 MWF 1:00-1:50(06) (B. Haviland)

AMST 1700M. Transpacific America. The seminar is designed to help us think about the circulation and exchange of goods, people and ideas across the Pacific that have shaped the development of North America from colonial times to the present. We will explore ways in which these circuits have shaped questions of identity and belonging in the context of empire, settler colonialism and diasporas.

Fall AMST1700M S01 16617 W 3:00-5:30(17) (R. Lee)

AMST 1800. Honors Seminar. This seminar is for second-semester junior American Studies and Ethnic 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 and Ethnic Studies. Enrollment limited to 20. S/NC

Spr AMST1800 S01 24382 F 3:00-5:30(15) (B. Haviland)

AMST 1900I. Latina/o Cultural Theory. Advanced seminar designed to familiarize students with past and present debates in Latina/o Studies. Knowledge of these critical conversations will aid students in making their own contributions to the field as they write their theses and dissertations. We will read such works as Jose Limon, Mary Pat Brady, Frances Aparicio, and Gustavo Perez Firmat, to name but a few. Enrollment limited to 20 juniors and seniors.

Fall AMST1900I S01 16824 TTh 9:00-10:20(02) (R. Rodriguez)

AMST 1900P. Essaying Culture. This course is interested in the essay as form. As a verb, essay means "to make an often tentative or experimental effort to perform." We will explore through reading and our own writing the poetic, gnomic, and often desultory moves the essay makes as it seeks to understand its cultural objects. Like the novel, the essay is an omnivorous form. It consists of fragments, poetry, personal reflection, lists, rational argument, and much more as it winds its way to understanding. We will be reading a range of essays, as well as theories of the form. WRIT

Spr AMST1900PS01 24571 TTh 9:00-10:20(01) (R. Rodriguez)

AMST 1901B. Form Matters: Contemporary Short Fiction. Form Matters is an advanced seminar in reading contemporary short fiction, mainly centered on US writers. The class particularly focuses on socially-attuned and historically-minded neo-formalist analyses of literature. Fiction readings will be supplemented with relevant critical readings from both scholars and practicing writers. Students will be expected to engage in rigorous discussion of the material. Goals of the course include introducing you to a relevant critical vocabulary for discussing form, deepening your familiarity with contemporary US short fiction, and improving your oral and written communication skills.

Fall AMST1901B S01 16200 TTh 1:00-2:20(10) (R. Rodriguez)

AMST 1901D. Motherhood in Black and White. Focuses on American motherhood with respect to race: under slavery; at the turn of the 20th century; and in contemporary society. Texts include fiction, film, history, feminist and psychoanalytic theory, e.g. "Uncle Tom's Cabin," "Incidents in the Life of a Slave Girl," "Imitation of Life," and "The Reproduction of Mothering." Enrollment limited to 20. DPLL WRIT

Fall AMST1901DS01 15893 Th 4:00-6:30(04) (B. Haviland)
AMST 1901E. Introduction to Ethnomusicology (MUSC 1900). Interested students must register for MUSC 1900.
Fall AMST1901E S01 17135 Arranged 'To Be Arranged'

AMST 1905N. War and the Mind in Modern America.
This course examines how the crucial of war has shaped modern conceptions of human nature. Moving from the Civil War to the present, we will consider questions such as changing theories of combat trauma, evolutionary and social scientific explanations for why people fight wars, and the role of memory in individual and collective understandings of violent conflicts. Students will analyze representations of war in film and literature in addition to reading historical and theoretical texts. WRIT Fall AMST1905N S01 24390 M 3:00-5:30(13) (D. Weinstein)

AMST 1906Q. The History of Children and Childhood in America.
We will examine the evolution of childhood—as both a socioculturally constructed concept and a lived experience—from the colonial period to the present. In doing so, we will explore the impact of race, gender, class, and region on those constructions and experiences and consider the interpretive possibilities and challenges offered by various types of evidence: visual and literary representations, memoirs, child rearing advice, toys and play, children's literature, clothing, and protective and restrictive laws.
Fall AMST1906Q S01 16845 W 3:00-5:30(17) (R. Meckel)

AMST 1906R. Law and Transformative Social Change.
What potential does the law hold to bring about transformative social change in today's society? Relatedly, what strategies and approaches have social movement activists utilized to engage lawyers and the broader legal system? We will answer these questions through an examination of models of activist and public interest lawyering from the Civil Rights, Environment Justice, Immigrant Rights and same sex marriage movements. Readings will draw from sociological, anthropological, legal and historical texts and legal cases with a focus on exploring multiple aspects of a legal decision.
Fall AMST1906R S01 16630 TTh 6:40-8:00PM(15) (K. Escudero)

AMST 1970. Independent Reading and Research.
Required of all seniors 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 2010. Introduction to Interdisciplinary Methods.
Introduction to interdisciplinary studies required of all first-year graduate students in American Studies. Graduate students from other departments may enroll with permission of the instructor.
Fall AMST2010 S01 15902 M 3:00-5:30(05) (D. Weinstein)

AMST 2220L. Cultural Theory: Cultural Studies Rubrics in American Studies.
This course will provide an introduction to significant theoretical rubrics deployed in the analysis of cultural texts in the field of American Studies. From the Marxist cultural theorists of the Frankfurt School and British school of cultural studies to scholars of New Materialism we will chart a wide theoretical terrain in order to grapple with the import of the cultural and aesthetic.
Spr AMST2220L S01 24439 F 3:00-5:30(15) (L. Alvarado)

AMST 2450. Exchange Scholar Program.
Fall AMST2450 S01 15092 Arranged 'To Be Arranged'

This course explores the mechanics of a doctorate degree in American Studies. We will explore the constitution of our field through the elaboration of field exam lists and narratives, query its pedagogical application in the design of undergraduate syllabi, and begin to outline and enact our participation in the profession both within and beyond the academy. At the end of this class, students will have constructed a portfolio that will assist their progress towards a degree and provide the tools with which to chart pathways once a degree is in hand. S/NC
Fall AMST2520 S01 16911 F 3:00-5:30(11) (L. Alvarado)

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 16950 W 3:00-5:30(17) (S. Lubar)

AMST 2655. Against Invisibility: Asian America/s, Collective Memory and the Public Humanities.
Asians have been living in North America since the 1600’s but four centuries later Asian Americans are still virtually invisible in the narratives that define the nation. What spaces are available to resist invisibility? The seminar will focus on ways in which Asian Americans have used vernacular photography to archive collective memory, resist state surveillances, assert subjectivity, and narrate alternate histories. We will learn to read photographs in their shifting contexts produced in the internment or refugee camp, collected in a family album or used to prove immigration status and think about the politics of photography in Asian American narratives.
Spr AMST2655 S01 25499 W 3:00-5:30(10) (R. Lee)

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 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

AMST 2922. 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 2923. 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 2950. Independent Reading and Research in Public Humanities.
For MA in Public Humanities Students who wish to do independent reading and research.

AMST 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.
Fall AMST2990 S01 15093 Arranged 'To Be Arranged'
Spr AMST2990 S01 24046 Arranged 'To Be Arranged'
Ethnic Studies

ETHN 1000. 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. DPLL Fall ETHN1000 S01 15897 MWF 1:00-1:50(06) (E. Hoover)

ETHN 1200B. Contemporary Indigenous Education in North America.
In the past, formalized schooling in Indigenous communities was a tool of colonization and cultural genocide, forcing Native peoples to assimilate to western norms, values, and knowledge. However, contemporary Indigenous communities have managed to reclaim and reshape education for Native youth, utilizing innovative methods and technologies, as well as drawing upon generations of traditional and Indigenous knowledges to create environments that promote academic achievement alongside culture. In this course we will focus on the ways Native communities are asserting their educational sovereignty, through culturally-relevant/responsive curriculums, language immersion schools, Indigenous charter schools, traditional ecological and scientific knowledges, and more.
Fall ETHN1200B S01 24568 W 3:00-5:30(10) (A. Keene)

ETHN 1200D. Latinx Literature.
This course will introduce students to a broad array of Latina/o/literature-fiction, 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 1985 to the present. Aimed to familiarize students with debates in the field, the readings will also include critical essays. Enrollment limited to 15.
DPLL WRIT Spr ETHN1200DS01 24570 W 1:00-2:20(08) (R. Rodriguez)

ETHN 1200G. Introduction to Latina/o Cultural Studies.
This course serves as an introduction to the many discourses that structure and challenge what it means to be Latina/o/x in the United States. Through historically situated critical analysis of Latina/o/x cultural production, including theoretical essays, literature, and film, we will meditate on the major issues that shape the Latina/o/x experience. We will study how Latinidad—the sense of being Latina/o/x—is constructed as an identity and how that identity varies across origin, place, and time. Major themes we will explore include the legacies of U.S. colonialism; cultural nationalism, citizenship, immigration and exile; labor and class; race and ethnicity; and gender and sexuality.
Fall ETHN1200G S01 17117 MWF 2:00-2:50(07) (L. Alvarado)

ETHN 1200I. History and Resistance in Representations of Native Peoples.
Throughout history, Native peoples have been portrayed through a stock set of stereotypes such as savage warriors, Indian princesses, or mystical shamans. These images surround us in advertising, news media, Hollywood, sports mascots, and Halloween costumes. This course will examine the foundations of these representations and their connections to colonization, with a focus on contemporary and ongoing examples, from Johnny Depp’s Tonto, Urban Outfitters’ “Navajo” products, to JK Rowling’s “History of Magic in North America,” with a focus on the ways Native peoples are taking back and reshaping Native representations through activism, social media, art, design, film, and more.
Fall ETHN1200I S01 17113 W 3:00-5:30(17) (A. Keene)

ETHN 1650B. Asian Americans and the Racial State: Exclusion and Incarceration.
The exclusion of Chinese from naturalization and immigration (from 1870 to 1943) and the wholesale incarceration of Japanese Americans during WWII remain important touchstones for thinking about the Asian American experience and lenses through which to examine current struggles over immigration, mass incarceration and race in North America.
Fall ETHN1650BS01 17107 F 3:00-5:30(11) (R. Lee)

ETHN 1750A. Immigrant Social Movements: Bridging Theory and Practice.
What is the impact of legal status on the potential for undocumented individuals’ participation in a social movement? Relatedly, how is the heterogeneity of movement participants represented in campaigns and political protest? In this course we will examine the undocumented immigrant movement in the United States today through readings, films and guest lectures from local immigrant rights activists. As part of the course students will be partnered with local community based organizations where they will complete a semester-long internship. DPLL Fall ETHN1750AS01 16197 Th 4:00-6:30(04) (K. Escudero)

ETHN 1750G. Introduction to Ethnomusicology (MUSC 1900).
Interested students must register for MUSC 1900.
Fall ETHN1750GS01 17136 Arranged (To Be Arranged)

ETHN 1750M. Extravagant Texts: Reading the World Through Asian American Literature.
In this course we study a body of writings that self-consciously move beyond the topics and genres with which Asian American literature has traditionally been associated—that is, in Maxine Hong Kingston’s formulation, “extravagant.” We explore works that adopt a transnational or diasporic perspective and that are written in such genres as magical realism, speculative fiction, experimental poetry, and plays. In addition to more conventional concerns like racism or immigration, these works also address such issues as empire, war, environmentalism mixed-race identity, adoption, and sexuality.
Spr ETHN1750MS01 25860 Th 2:30-3:50(11) (D. Kim)

ETHN 1900E. Senior Seminar in Ethnic Studies.
No description available.
Spr ETHN1900ES01 24572 M 3:00-5:30(13) (E. Shih)

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.

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

Anthropology

ANTH 0066B. Mythscapes.
An experimental seminar that will combine classroom discussion with visits to field sites within walking distance of the Brown campus. The aim will be to acquaint students with some fundamentals of symbolic analysis and to apply these fundamentals to interpreting the moral and historical messages suffused in the landscapes around us. Readings will include sources on the anthropological interpretation of myth combined with historical sources on Brown and its neighboring communities and institutions. Students will acquire a deeper sense of the mythic qualities of this place and some analytical tools for understanding mythscapes elsewhere. Enrollment limited to 19 first year students. FYS DPLL Fall ANTH0066BS01 16187 Th 4:00-6:30(09) (W. Simmons)

ANTH 0066E. Colonial Cities.
This course attempts to understand the nature of colonialism in Africa and India. Comparative methodological approach to the study of colonial cities introduces the students to a multiple and interlocking idea and symbols used by colonial power to create in their images, cities which reflect their own image. For first year students only.
Spr ANTH0066ES01 24474 Th 10:30-11:50(09) (L. Fruzzetti)
ANTH 0077N. The Anthropology of Gender and Science. This seminar examines topics including genetics, reproduction, and evolution, all through the lens of gender/sex systems. The themes of social justice, identity, and difference are central to the course. We will explore: How epidemiology and engendered social justice are often in conflict in the fight against AIDS in Africa; to learn about difference, anthropomorphism, gender, and primatologists' comparisons between humans, bonobos, and chimpanzees; efforts to scare men in the United States about "Low Testosterone," and how they reflect shifting identities as much as reduced hormone levels; and the relationship between gender, Traditional Chinese Medicine, and Western Biomedicine in China.

Spr ANTH0077N S01 24475 W 3:00-5:30(10) (M. Gutmann)

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.

Fall ANTH0100 S01 16921 MWF 11:00-11:50(16) "To Be Arranged"

ANTH 0110. Anthropology and Global Social Problems: Environment, Development, and Governance. This course offers students an opportunity to examine and analyze a range of contemporary global social problems from an anthropological perspective. We will explore human-environment entanglements with particular attention to intersecting issues of capitalism, international development, and state and non-state governance. Course materials will look at various kinds of work in on, and with the environment, asking questions about the possibilities of over-working our landscapes, while addressing the potentials for social and environment justice and sustainability.

Spr ANTH0110 S01 25191 MWF 2:00-2:50(07) (S. Besky)

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. DPLL WRIT Fall ANTH0300 S01 16918 MWF 2:00-2:50(07) (K. Mason)

ANTH 0450. Inequality, Sustainability, and Mobility in a Car-Clogged World. The global car population is predicted to reach two billion by the year 2020. The social, political, health, and environmental consequences are immense. These, as well as the cultural and political economic explanations for the car population explosion, will be explored in this class, as will alternative futures for transit.

Fall ANTH0450 S01 16098 TTh 2:30-3:50(03) (C. Lutz)

ANTH 0500. Past Forward: Discovering Anthropological Archaeology. This course offers a broad journey through the human past, from material culture crafted by our evolutionary ancestors to the remnants of the recent historic past. To facilitate this journey, the class explores the methods, concepts, and theories that anthropologists employ in the study of past peoples, places, and things. Case studies stretch across the globe. As a hands-on endeavor, archaeology focuses on tangible evidence. In this course, small-group discussion, laboratory, and field exercises will complement lectures, leading to an understanding of how anthropologists study the past and how that knowledge affects the present.

Fall ANTH0500 S01 16941 TTh 10:30-11:50(13) (P. VanValkenburgh)

ANTH 0680. 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. WRIT

Spr ANTH0680 S01 24477 MWF 10:00-10:50(03) (J. Leinaweaver)

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. DPLL

Fall ANTH0800 S01 16099 MWF 1:00-1:50(06) (L. Arnold)

ANTH 1111. Anthropology of China. This course introduces students to contemporary Chinese culture and society, w/a focus on the rapid changes that have taken place during the post-Mao reform era in the People's Republic of China (1978- present). Emphasis will be placed on the importance of historical and global context in developing an understanding of contemporary Chinese culture. Readings and lectures will draw primarily upon recent ethnographic work conducted in the PRC, but readings from the disciplines of history, political science, public health, and contemporary Chinese literature (in translation) will also be incorporated. Topics: family life, urbanization, housing, migration, gender, health/disease, labor, globalization, and cyberculture. WRIT

Spr ANTH1111 S01 25504 TTh 2:30-3:50(11) (K. Mason)

ANTH 1201. Introduction to Geographic Information Systems and Spatial Analysis. This course offers an introduction to the concepts and techniques of Geographic Information Systems (GIS). Through weekly lab assignments and work on independent projects, students develop skills in cartography and coordinate systems, spatial database design, image processing, basic spatial analysis, hydrological modeling, and three-dimensional modeling. Discussions and case material draw primarily from the application of GIS in archaeology, anthropology, and cultural geography, including the study of archival materials and the ethics of geographic representation. Provides foundation for upper division coursework in spatial analysis. Software focuses on ESRI products (ArcMap, ArcScene, ArcCatalog, ArcGIS Pro).

Fall ANTH1201 S01 16942 TTh 2:30-3:50(03) (P. VanValkenburgh)

ANTH 1240. Religion and Culture. Global events in recent years seem to defy the commonsensical idea that religious traditions would decline or disappear in the modern epoch. We examine classic theories and methods in the study of religion to understand the continuing vitality of spiritual contemplation, asceticism, myths, rituals, magic, witchcraft, experiences of healing, and other ways of thinking and acting that are typically associated with (or against) the concept of religion. DPLL

Fall ANTH1240 S01 16924 M 3:00-5:30(05) (W. Simmons)
ANTH 1242. Bioethics and Culture.
This course examines bioethics from an ethnographic point of view. Topics include pregnancy, death, suicide, disability, medical research, organ transplantation, and population control. We will distinguish between the moral experiences of people faced with difficult choices, and the ethical ideals to which they aspire. We will then ask: how can these perspectives be reconciled? When trying to reconcile these perspectives, how can we account for powerful dynamics of race, gender, class, religion, and cultural difference? Finally, how can we develop a code of ethics that takes these issues into account and also is fundamentally connected to everyday life?

DPLL WRIT
Spr ANTH1242 S01 25505 TTh 10:30-11:50(09) (K. Mason)

ANTH 1250. Film and Anthropology: Identity and Images of Indian Societies.
The course represents imagination 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.

DPLL

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.

Fall ANTH1255 S01 16917 MW 8:30-9:50(01) (R. Carter)

ANTH 1300. Anthropology of Addictions and Recovery.
The purpose of this course is to consider the uses and misuses alcohol, tobacco and drugs, and approaches to recovery from additions. We will read some of the major cross cultural, ethnographic, linguistic, and social-political works on addictions. Students will have the opportunity to conduct their own anthropological interviews regarding substance misuse and recovery as well as observe a local 12 step recovery meeting. Enrollment limited to 20.

WRIT
Fall ANTH1300 S01 16998 M 3:00-5:30(05) (I. Glasser)

ANTH 1301. Anthropology of Homelessness.
Homelessness emerged as a public concern in the United States and in other industrialized countries in the late 1970s as people began encountering people living on the streets, a way of life which had formerly been confined to the skid rows of large cities. In this course, through readings, readings, discussion, and hands on experiences with homeless populations, we will uncover the causes, conditions, and responses to homelessness. Each student will spend at least two hours per week in a local homeless-serving agency in order to gain face to face experiences.

The field placements will be facilitated by the professor.
Spr ANTH1301 S01 25549 T 4:00-6:30(16) (I. Glasser)

ANTH 1320. Anthropology and International Development: Ethnographic Perspectives on Poverty and Progress.
Examines international development from an ethnographic perspective, looking critically at issues of poverty and progress from local points of view. Course is organized around the premise that culture is central to understanding processes of development. Broad development themes such as public health, agriculture, democracy, and the environment will be explored through readings representing a wide range of regions and cultures.

DPLL

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.

Spr ANTH1621 S01 24479 M 3:00-5:30(13) (P. Rubertone)

ANTH 1624. Indians, Colonists, and Africans in New England.
The course explores the colonial and capitalist transformation of New England's social and cultural landscapes following European contact. Using archaeology as critical evidence, we will examine claims about conquest, Indian Extinction, and class, gender and race relations by studying the daily lives and interactions of the area's diverse Native American, African American, and European peoples.

DPLL
Fall ANTH1624 S01 16103 TTh 10:30-11:50(13) (P. Rubertone)

ANTH 1720. The Human Skeleton.
More than simply a tissue within our bodies, the human skeleton is a 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'll 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.

Fall ANTH1720 S01 16104 TTh 9:00-10:20(02) (A. Scherer)

ANTH 1848. Ethnography + Social Critique.
This class will study classic and contemporary anthropological ethnographies – as well as studies from sociology, journalism, and history – that achieve ethnographic results, but will require discussion to determine what they are. We will examine the methods involved in research for the books and articles and how the ethnographies were written. Ethnographies will be chosen for their importance in anthropology and other fields, and will cover a broad range of topical and geographic contexts. This class is to study ethnographies more than to make them. Assignments will include practicing certain methods that are often employed by ethnographers.

Fall ANTH1848 S01 16935 TTh 2:30-3:50(03) (M. Gutmann)

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.

Spr ANTH1900 S01 25507 W 3:00-5:30(10) (W. Simmons)

ANTH 1910B. Anthropology of Place.
The anthropology of place serves as a unifying theme for the seminar by bridging anthropology's subdisciplines and articulating with other fields of knowledge. Through readings and discussion, students will explore how place permeates people's everyday lives and their engagement with the world, and is implicit in the meanings they attach to specific locales, their struggles over them, and the longings they express for them in rapidly changing and reconfigured landscapes. Enrollment limited to 20.

Fall ANTH1910BS01 16915 W 3:00-5:30(17) (P. Rubertone)

ANTH 1910D. Faces of Culture.
The seminar is designed to allow you as anthropology majors to question to debate and examine some of the assumptions of the discipline, and critically explore the multifacous uses of the concept. We will contextualize the study of culture with the history of anthropology and across other disciplines in the humanities and the social sciences. Limited to 20.
Prerequisite: ANTH1900
Spr ANTH1910C S01 24482 Th 4:00-6:30(17) 'To Be Arranged'
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. WRIT
Fall ANTH1940 S01 16106 Th 4:00-6:30(04) (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.
Fall ANTH2000 S01 16107 W 3:00-5:30(17) (D. Kertzer)

A seminar exploring fundamental theoretical and ethnographic currents in 20th- and 21st-century cultural anthropology.
Spr ANTH2010 S01 24483 Th 4:00-6:30(17) (M. Gutmann)

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.
Spr ANTH2020 S01 24484 M 9:00-11:30 (R. Carter)

ANTH 2045. Proposal Writing Workshop for Anthropological Fieldwork.
This course is designed for third-year graduate students in any subfield of anthropology or closely related fields who are writing grant proposals for dissertation research. Student grant proposals will be pre-circulated and workshopped. Students will gain familiarity with the format for writing successful proposals, with the strategies needed to operationalize them, and with the everyday academic labor of both offering and responding to substantive feedback.
Fall ANTH2045 S01 16108 Arranged (J. Leinaweaver)

ANTH 2050. Ethnography.
Each week this class will study classic and contemporary ethnographies - as well as studies from sociology, journalism, and history - that achieve ethnographic results, but will require discussion to determine what they are. We will carefully examine the methods involved in research for the books and how the ethnographies were written. Ethnographies will be chosen for their importance in anthropology and other fields, and will cover a broad range of topical and geographic contexts.
Fall ANTH2050 S01 16109 Th 4:00-6:30(04) (M. Gutmann)

ANTH 2060. Anthropology Dissertators’ Seminar.
This seminar is for post-field graduate students in residence at Brown who are at any stage of writing their dissertations. It is intended to support dissertators by providing a structured community, providing a setting for sharing goals, and workshopping writing.
Fall ANTH2060 S01 16110 Arranged (P. Faudree)
Spr ANTH2060 S01 24485 Arranged (P. Faudree)

ANTH 2230. Medical Anthropology.
This graduate seminar provides a theoretical, methodological, and ethnographic foundation in medical anthropology. The focus will be on sociocultural approaches to the study of the suffering, illness and the body, though the course will also engage with key issues in biocultural approaches to understanding disease processes. Topics will include: social suffering, religion and medicine, local biologies, gender and the body, biotechnology, bioethics, caregiving and doctoring, and the global burden of disease.
Fall ANTH2230 S01 16919 W 9:30-12:00 (K. Mason)

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-fertility, mortality, marriage, migration-are considered, and the links between anthropological and demographic writings on and approaches to these areas are examined.
Spr ANTH2300 S01 25506 M 3:00-5:30(13) (D. Kertzer)

ANTH 2450. Exchange Scholar Program.
Fall ANTH2450 S01 15094 Arranged "To Be Arranged"
Spr ANTH2450 S01 24047 Arranged "To Be Arranged"

ANTH 2500A. Problems in Archaeology: Archaeology of 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 archaeological practice.
Spr ANTH2500A S01 25503 Th 4:00-6:30(17) (P. Rubertone)

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.
Fall ANTH2501 S01 16112 F 9:00-11:30 (R. Preucel)

ANTH 2560. Lived Bodies, Dead Bodies: The Archaeology of Human Remains.
Bioarchaeology is the study of human remains from archaeological contexts. We will survey the "state of the art" in bioarchaeology, while exploring its relevance and application to the archaeology of complex societies. We will survey a range of bioarchaeological methods and applications, including paleopathology, stable isotope analysis, population affinity/ancient DNA, perimortem trauma, and body modification. In turn, we will explore how bioarchaeology can be used to approach a wide range of archaeological problems relevant to complex societies, including subsistence, economy, migration, urbanism, social inequality, conflict and warfare, and identity. Open to graduate students only. S/NC.
Fall ANTH2560 S01 16920 W 5:40-7:00 (A. Scherer)

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.
Spr ANTH2800 S01 24487 T 1:30-3:50 (P. Faudree)

ANTH 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.
Fall ANTH2970 S01 15095 Arranged "To Be Arranged"
Spr ANTH2970 S01 24048 Arranged "To Be Arranged"

ANTH 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.

ANTH 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.
Fall ANTH2990 S01 15096 Arranged "To Be Arranged"
Spr ANTH2990 S01 24049 Arranged "To Be Arranged"

ANTH XL10. Courses of Interest to Students Concentrating in Anthropology.
Applied Mathematics

APMA 0200. Introduction to Modelling.
This course provides an introduction to the mathematical modeling of selected biological, chemical, engineering, and physical processes. The goal is to illustrate the typical way in which applied mathematicians approach practical applications, from understanding the underlying problem, creating a model, analyzing the model using mathematical techniques, and interpreting the findings in terms of the original problem. Single-variable calculus is the only requirement; all other techniques from differential equations, linear algebra, and numerical methods, to probability and statistics will be introduced in class. Prerequisites: Math 0100 or equivalent.
Fall APMA0200 S01 17027 TTh 10:30-11:50(13) (C. Dafermos)

APMA 0330. Methods of Applied Mathematics I, II.
This course will cover mathematical techniques involving ordinary differential equations used in the analysis of physical, biological, and economic phenomena. The course emphasizes established methods and their applications rather than rigorous foundation. Topics include: first and second order differential equations, an introduction to numerical methods, series solutions, and Laplace transformations.
Fall APMA0330 S01 17005 MWF 12:00-12:50(12) (S. Akopian)

APMA 0340. Methods of Applied Mathematics I, II.
Mathematical techniques involving differential equations used in the analysis of physical, biological and economic phenomena. Emphasis on the use of established methods, rather than rigorous foundations. I: First and second order differential equations. II: Applications of linear algebra to systems of equations; numerical methods; nonlinear problems and stability; introduction to partial differential equations; introduction to statistics. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or advanced placement.
Fall APMA0340 S01 17006 MWF 12:00-12:50(12) (V. Dobrushkin)

This course gives a comprehensive introduction to the qualitative and quantitative theory of ordinary differential equations and their applications. Specific topics covered include applications of differential equations in biology, chemistry, economics, and physics; integrating factors and separable equations; techniques for solving linear systems of differential equations; numerical approaches to solving differential equations; phase-plane analysis of planar nonlinear systems; rigorous theoretical foundations of differential equations.
Format: Six hours of lectures, and two hours of recitation.
Prerequisites: MATH 0100, MATH 0170, MATH 0180, MATH 0190, MATH 0200, MATH 0350 or advanced placement. MATH 0520 (can be taken concurrently).
Fall APMA0350 S01 17007 TTh 9:00-10:20(02) (B. Sandstede)
Spr APMA0350 S01 25560 TTh 10:30-11:50(09) (C. Dafermos)

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 advanced placement.
Fall APMA0360 S01 17008 MWF 1:00-1:50(06) (J. Darbon)

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 17009 MWF 11:00-11:50(16) (L. Bienenstock)

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 17013 MWF 10:00-10:50(14) (J. Guzman)

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 17015 MWF 2:00-2:50(07) (G. Fu)

APMA 1330. Applied Partial Differential Equations II.
Fall APMA1330 S01 17016 MWF 1:00-1:50(06) (A. Matzavinos)

APMA 1560. Statistical Inference I.
APMA 1560 is an integrated first course in mathematical statistics. The first half of APMA 1560 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: One year of university-level calculus. At Brown, this corresponds to MATH 0100, MATH 0170, MATH 0180, MATH 0190, MATH 0200, or MATH 0350. A score of 4 or 5 on the AP Calculus BC exam is also sufficient.
Fall APMA1560 S01 17017 TTh 1:00-2:20(10) 'To Be Arranged'

APMA 1565. Statistical Inference I.
Students may opt to enroll in 1655 for more in depth coverage of APMA 1650. Enrollment in 1655 will include an optional recitation section and required additional individual work. Applied Math concentrators are encouraged to take 1655.
Prerequisite (for either version): MATH 0100, 0170, 0180, 0190, 0200, or 0350.
Fall APMA1565 S01 17018 MWF 11:00-11:50(16) (C. Klivans)

APMA 1650. Statistical Inference II.
APMA 1650 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 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. Students are encouraged to take 1655.
Fall APMA1650 S01 17016 MWF 11:00-11:50(16) (A. Matzavinos)

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, 1655 or equivalent, basic linear algebra.
Fall APMA1660 S01 25567 TTh 2:30-3:50(11) (C. Klivans)

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. Prerequisites: A calculus-based course in probability or statistics (e.g. APMA1650 or MATH1610) is required, and some programming experience is strongly recommended. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or equivalent placement.
Fall APMA1690 S01 17019 MWF 2:00-2:50(07) (H. Wang)
APMA 1710. Information Theory.
Information theory is the study of the fundamental limits of information transmission and storage. This course, intended primarily for advanced undergraduates and beginning graduate students, offers a broad introduction to information theory and its applications: Entropy and information, lossless data compression, communication in the presence of noise, channel capacity, channel coding, source-channel separation, lossy data compression. Prerequisite: one course in probability.
Fall APMA1770 S01 17020 MWF 9:00-10:50(01) (M. Harrison)

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

APMA 2110. Real Analysis.
Provides the basis of real analysis which is fundamental to many of the other courses in the program: metric spaces, measure theory, and the theory of integration and differentiation.
Fall APMA2110 S01 17021 MWF 10:00-10:50(14) (H. Dong)

Fall APMA2190 S01 17022 TTh 2:30-3:50(03) (J. Mallet-Paret)

APMA 2450. Exchange Scholar Program.
Fall APMA2450 S01 15097 Arranged "To Be Arranged"

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 17023 W 3:00-5:30(17) (G. Karniadakis)

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 APMA2570FS01 17024 M 3:00-5:30(05) (M. Ainsworth)

APMA 2630. Probability of Probability.
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 17025 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 subjects: 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 25575 TTh 1:00-2:20(08) (M. Harrison)

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.
Fall APMA2670 S01 17026 Th 4:00-6:30(04) (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.
Fall APMA2680 S01 25576 Th 4:00-6:30(17) (B. Gidas)

ARCH 0270. Troy Rocks! Archaeology of an Epic.
What did Brad Pitt, Julia 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 19 first year students. FYS.
Fall ARCH0270 S01 17127 TTh 9:00-10:20(02) "To Be Arranged"

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.
Fall ARCH1500 S01 17128 TTh 10:30-11:50(13) (E. Mol)

ARCH 1900. The Archaeology of College Hill.
A hands-on training class in archaeological 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 (i.e., actually dig and analyze the results!) through the investigation of local historical and archaeological sites in the College Hill area (e.g. the First Baptist Church of America and Brown University's Quiet Green).
Fall ARCH1900 S01 17129 M 3:00-5:30(05) "To Be Arranged"
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Honors students in Archaeology and the Ancient World who are completing their theses should enroll in this course in their final semester. 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.

ARCH 2020E. Economy and Trade in the Later Bronze Age Aegean and East Mediterranean.
Beginning with an examination of the workings of the Mycenaean palace economy, including the evidence of Linear B documents, this seminar will then turn to a more inclusive consideration of trade and exchange involving Aegean states and their counterparts further east, and of the nature and extent of cultural interaction between them during the later Bronze Age (ca. 1600-1100 BC). Fall ARCH2020ES01 17131 Th 4:00-6:30(04) (J. Cherry)

ARCH 2880. Individual Reading.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ARCH 2891. Thesis Research.
Individual reading for the Master's degree. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ARCH 2892. 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 2893. Dissertation Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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

Biology and Medicine

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. Fall BIOL0030 S01 15300 MW 8:30-9:50(01) (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 24957 T 4:00-6:30(16) (B. Bready)

BIOL 0100. Living Biology at Brown and Beyond.
This unique course has three goals: 1) provide students meaningful introductions to the people, places, projects and opportunities that comprise the Program in Biology at Brown, 2) foster student identities as valued members of our STEM community while helping each discover their unique interests and potential contributions, 3) arm students with a diversity of personal, professional and academic skills that will help them succeed in Biology at Brown and beyond. The course is especially tailored to those likely to pursue one of Brown’s many Biology concentrations, but it is open to all. Fall BIOL0100 S01 16999 M 3:00-5:30(05) (K. Smith)

BIOL 0140C. Communicating Science: Animating Science.
Taught by RISD/Brown professors with the Science Ctr and Creative Mind Initiative, this course 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 fill an educational need and makes science engaging and accessible. Lectures, labs, discussions, critiques and speakers. Teams collaborate on a series of short exercises leading to the creation of videos/animations explaining scientific concepts. Projects evaluated on accuracy, clarity of explanation, educational value, viewer engagement and creativity. Not for concentration credit in Biological Sciences programs. Enrollment limited to 12; instructor permission. Fall BIOL0140C S01 15302 W 1:00-6:00 (J. Stein)

BIOL 0150A. Techniques and Analyses using DNA-Based Biotechnology.
Students will study and practice a range of methods used in molecular biology while examining the ways in which those tools are used in research and in the development of medical treatments. This experience, combined with the reading and discussion of selected papers from the primary literature, fosters development of a skill set critically important for the modern day biology student. Expected background: high school Biology course. Enrollment limited to 10 first year students. Instructor permission required. Half-credit course. S/N/C. FYS Fall BIOL0150A S01 15304 Th 5:00-8:00PM (J. Hall)

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/N/C. FYS Spr BIOL0150D S01 24958 M 12:30-2:30 (T. Achilli)

BIOL 0160. 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, WRIT. Enrollment limited to 50. WRIT Spr BIOL0160 S01 25196 TTh 10:30-11:50(09) (P. Heywood)

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 15306 MWF 2:00-2:50(07) (T. Achilli)
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 smallpox 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 not carry Biology concentration credit.
Fall BIOL0180 S01 15307 MW 8:30-9:50(01) (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 19. Students MUST register for the lecture section and the lab. FYS
Fall BIOL0190E S01 16799 MW 3:00-4:20(17) (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 19 first-year students. FYS
Fall BIOL0190F S01 15308 Th 1:00-2:20(10) (M. Tatar)

BIOL 0190P. Pride and Prejudice in the Development of Scientific Theories.
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 19 first-year students. FYS DPLL
Fall BIOL0190P S01 15309 Th 2:30-3:50(03) (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. Lab work includes isolation and purification of your own phage, DNA isolation and restriction mapping, and EM characterization of your phage. Several phases will be selected for genome sequencing over winter break, and are annotated in the spring. One hour of lab discussion, and 3 hours lab per week. Expected: AP Biology or equivalent, and HS chemistry. Instructor permission required. Admittance based on review of applications in the first class. Limited to 19 freshmen. FYS
Fall BIOL0190R S01 15310 M 3:00-5:30(05) (Y. Zhou)

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 phases will be selected for genome sequencing over winter Recess, and annotated in the spring. One hour of 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 fall and spring courses in the sequence. Enrollment limited to 19 first-year students. Instructor permission. FYS
Spr BIOL0190S S01 25132 WF 3:00-5:30 (S. Taylor)

BIOL 0190U. The Lives of Plants.
This course examines the lives of plants through their development, structure, function, reproduction, and responses to environmental conditions. Enrollment limited to 19 first-year students. FYS WRIT
Fall BIOL0190U S01 15312 Th 10:30-11:50(13) (P. Heywood)

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 25036 MWF 11:00-11:50(04) (K. Miller)

BIOL 0210. Diversity of Life.
This course will explore biological diversity -- the number of taxa, and the functions, and processes that support life -- from the perspectives of ecology and evolutionary biology. It will draw on examples and case studies from the geological record, functional morphology, the evolution of organ systems in vertebrates, genomics, behavior and sexual selection in birds and invertebrates. Overarching themes will emphasize that taxonomic diversity is an emergent property of complex life on Earth, and the importance of diversity of biological functions and processes in generating and maintaining taxonomic diversity. Class Restriction: Freshmen and sophomores; others by instructor permission.
Fall BIOL0210 S01 15313 MWF 11:00-11:50(16) (J. Kellner)

BIOL 0280. 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 25042 Th 1:00-2:20(08) (L. Lapierre)

BIOL 0285. Inquiry in Biochemistry: From Gene to Protein Function.
Working in small groups, students will examine enzymatic reactions in bacterial metabolic pathways. They will gather information from online databases, define a working model and test this model by purifying a target enzyme and characterizing its biochemical function. They will then propose a hypothesis for the enzymatic reaction mechanism and test this hypothesis by designing mutations in the enzyme active site and characterizing these mutant enzymes experimentally. Priority given to sophomore and junior students planning to enter research careers. Expected: Students have previously taken or concurrently enrolled in BIOL 0280; preference given to students concurrently enrolled. Final grade determined for BIOL 0285.
Spr BIOL0285 S01 25053 M 1:00-5:00 (K. Cohen)
Spr BIOL0285 S02 25054 Th 2:30-6:30 (K. Cohen)

BIOL 0350. The Fossil Record: Life through Time on Earth.
Course is designed for students with prior background in geology or evolutionary biology and who want to learn more about the fossil record, the origins of modern biodiversity and ecosystem structure, and interaction between organisms, and the geological and chemical cycles on the Earth. Lectures will cover major time periods during which animals and plants lived, as well as focusing on major transitions in the evolution of life on Earth. This course will fulfill requirements in both the geology/biology and evolutionary biology concentrations. Expected: BIOL 0210, GEOL 0240 or equivalent. Instructor permission, enrollment limited to 20 sophomores/juniors; register for course/lab.
Spr BIOL0350 S01 25389 MWF 10:00-10:50(03) (A. Leslie)
BIOL 0380. The Ecology and Evolution of Infectious Disease.
Infectious diseases remain among the leading causes of death worldwide, and this burden is disproportionately borne by children living in low- and middle-income countries. Thus management of infectious disease remains a critical intellectual challenge in the 21st century. This course will develop and apply ecological and evolutionary theory to infectious microbes (and their hosts) via the detailed examination of a number of case studies. This will be accomplished by a combination of lectures, discussions, and readings drawn mainly from the primary literature. Assessment will be based on biweekly problem sets, two midterms and one final exam. Expected: BIOL 0200 or equivalent.
Fall BIOL0380 S01 15314 MWF 10:00-10:50(14) (D. Weinreich)

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. WRIT
Fall BIOL0400 S01 15315 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 16803 TTh 9:00-10:20(02) ‘To Be Arranged’

The principles, concepts, and controversies involved in the study of the distribution and abundance of plant and animal populations and their integration into natural communities. Emphasizes interactions among organisms and the hierarchical nature of ecological processes affecting individuals, populations, and communities. Expected: BIOL 0200 (or equivalent) and MATH 0900. Lectures and weekly discussion.
Spr BIOL0420 S01 25030 TTh 9:00-10:20(01) (J. Witman)

BIOL 0430. The Evolution of Plant Diversity.
Examines the evolutionary history of plants from a phylogenetic perspective. Introduces the science of phylogenetics - how to infer phylogenies and how to use them to understand organismal evolution. Highlights major trends in plant evolution over the past 400 million years. Lectures survey major plant lineages, with special focus on flowering plants. Weekly labs, field trips, and assignments stress basic plant anatomy and morphology, identification, and learning the local flora. Expected: BIOL 0200 (or equivalent placement). WRIT
Spr BIOL0430 S01 25274 TTh 9:00-10:20(01) (F. Jackson)

Will enable to students to master fundamental ecological concepts and understand how this knowledge can be used to inform coastal conservation and management. Case studies from New England and elsewhere, field trips to rocky shores, salt marshes and coastal ecosystems enable students to develop scientific skills and experience the challenges of coastal conservation science. The course is aimed at freshmen and sophomores. Expected background: BIOL 0200 or equivalent placement. Enrollment limited to 10 students, and written permission required. Email (Mark.Bertness@brown.edu) to receive course application (due May 1). Admitted students register for the course in September.
Fall BIOL0455 S01 15318 TTh 1:00-2:20(10) (M. Bertness)

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 S01 15319 TTh 10:30-11:50(13) (M. Johnson)

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 15330 MWF 9:00-9:50(01) (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 25055 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 microbiological techniques and selection and manipulation of microbes. Expected: BIOL 0200 (or equivalent placement). Students MUST register for the lecture section, conference, and the lab. Enrollment limited to 108.
Spr BIOL0510 S01 25138 MWF 1:00-1:50(06) (P. Beilenky)

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 background: BIOL 0200 or equivalent placement credit.
Fall BIOL0530 S01 15332 TTh 2:30-3:50(03) (R. Bungiro)

BIOL 0800. Principles of Physiology.
Introduction to the function and integration of organ systems with an emphasis on human physiology. 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 organ function at both the cellular and systemic levels. Expected: BIOL 0200 or equivalent.
Fall BIOL0800 S01 15334 TTh 10:30-11:50(13) (J. Stein)
Spr BIOL0800 S01 24960 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. Prerequisites: BIOL 0030 and 0800, plus permission of the instructor. Enrollment limited to 20.
Spr BIOL0860 S01 24954 TTh 4:00-5:30(16) (M. Flynn)
BIOl 0940A. Viral Epidemics. This sophomore seminar will examine epidemics (outbreaks) of viral infections from a historical perspective. We will also cover current literature and up to the minute news accounts of infectious disease related outbreaks occurring around the globe. The major focus will be on virus related diseases but any microbial outbreak in the news will be explored. The seminar will cover basic aspects of microbial pathogenesis so students can gain an appreciation of microbial host interactions. Essential writing skills will also be developed. Enrollment limited to 20 sophomore students. WRIT SOPH

Fall BIOL0940A S01 15338 Th 4:00-6:30(04) (W. Atwood)

BIOl 0940B. Sophomore Seminars in Biology: Life in a Shell. This Sophomore seminar is an examination of broad themes in whole animal physiology with an emphasis on environmental adaptations. The foundation of the course will be the instructor’s recent book “Life in a Shell: A Physiologist’s View of Turtle.” A consideration of this iconic animal’s novel biological traits will lead into comparisons with our own biology and that of other animals. Topics: respiration, circulation, metabolic rate, buoyancy control, overwintering, migration, reproduction, and bone structure and function. Relevant original research papers will be used. Mandatory S/NC; enrollment of 20 students; override required. Expected: BIOL 0200 or equivalent placement credit. SOPH

Fall BIOL0940B S01 15339 T 4:00-6:30(09) (D. Jackson)

BIOl 0940D. Rhode Island Flora: Understanding and Documenting Local Plant Diversity. This Sophomore Seminar focuses on species level identification of plants in Rhode Island and will cover the dominant plant species in each of the state’s main habitats including coastal wetlands and uplands, freshwater wetlands, peatlands, upland forests, and disturbed areas. Students will learn to identify plants using online interactive keys as well as more technical dichotomous keys and will also cover basic ecological processes in each habitat including the interaction of soils, geology, and hydrology. Materials related to plant morphology, plant taxonomy, plant evolution, understanding phylogenetic trees, and botanical illustration. Instructor permission required. SOPH

Fall BIOL0940D S01 16389 F 1:00-5:00 (T. Whitfield)

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. Permission must be obtained from the instructor prior to registering. Section numbers vary by instructor. Half credit.

FALL BIOL1040A S01 15338 Th 4:00-6:30(04) (W. Atwood)

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 or 0470 or 0500, or instructor permission. Graduate students register for BIOL 2050.

Fall BIOL1050 S01 15343 TTh 1:00-2:20(10) (K. Miller)

BIOL 1070. 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 0940, or equivalents. Preference will be granted to graduate students in the Biotechnology and Biomedical Engineering programs. Only for related course credit in Biology, and for theme course credit in Health and Human Biology programs. Enrollment limited to 20. Instructor permission required.

Fall BIOL1070 S01 15349 TTh 2:00-3:30 (J. Schell)

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 25.

Fall BIOL1090 S01 15350 T 1:00-3:50 (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 cytokskeletal 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. (Not for first and second-year undergraduates.)

Spr BIOL1100 S01 24990 M 3:00-5:30(13) (E. Horgnion)

BIOL 1110. Topics in Signal Transduction. Signal transduction is one of the most rapidly developing fields in biomedical sciences. Defects in signaling pathways can be responsible for diseases such as cancer, diabetes, cardiovascular disorders and psychoses. This course offers students an overview of the molecular pathways that allow cells to receive and process signals from their external environment, with an emphasis on the emerging state-of-the-art techniques used in their study. Expected background: BIOL 0200, 0280, 0470, or 0500. Enrollment limited to 20 juniors and seniors. Instructor permission required.

Fall BIOL1110 S01 15353 W 3:00-5:30(17) (E. Oancea)

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 15354 Th 3:00-5:50 (C. Kofron)

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, energy metabolism, cardiovascular and respiratory effects, endocrinology, principles of training, and special topics (e.g., diving, high altitude, and microgravity). Student presentations based on scientific articles are included. Expected: BIOL 0800 or written permission of the instructor.

Fall BIOL1160 S01 15355 MWF 1:00-1:50(06) (C. Haji)
BIOL 1250. Host-microbiome Interactions in Health and Disease.
Will focus on current understanding of how various microbiomes communicate and interact with the host and the factors that influence these interactions. We will discuss how the new technologies such as metagenomics and metabolomics have enhanced our understanding of host-microbiome interactions in health and disease. Students will have the opportunity to participate in discussions on how to apply recent discoveries to disease processes, health restoration and maintenance. The course will help students develop skills in critical thinking and in reading and evaluating original scientific literature. Expected: students with a background in basic microbiology (BIOL 0530 or its equivalent). 20 enrollment.

Spr BIOL1250 S01 25146 Th 2:30-5:30 (P. Belenky)

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 15374 TTh 10:30-11:50(13) (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 15450 TTh 2:30-3:50(03) (A. Deaconescu)

BIOL 1300. Biomolecular Interactions: Health, Disease and Drug Design.
Interactions between the molecules of life-proteins, RNA, DNA, membrane components-underlie all functions necessary for life. This course focuses on how nature controls these interactions, how these interactions can go awry in disease, and how we can learn the rules of these interactions to design drugs to treat disease. Students will review the physical basis of molecular interactions, learn classic and state-of-the-art high-resolution and high-throughput tools used to measure interaction, and survey the experimental and computational strategies to harness these interactions using a case study in rational drug design. Prerequisite: Introductory Biochemistry (BIOL 0280). Enrollment limited to 20; instructor permission. WRIT

Fall BIOL1300 S01 16452 M 3:00-5:30(05) (N. Fawzi)

This course is an advanced, seminar-based course. Primary literature is emphasized to complement the format of extensive student seminar presentations. It is essential that students have a strong background in biology in order to gain the most from this course. The emphasis of the course is student seminar presentation and extensive discussion on the material. This is often the first opportunity for students to present/ discuss science in a seminar format. Expected background: a course in Cell Biology (e.g. BIOL 0500 or 1050), and two additional Biology courses above the introductory (BIOL 0200) level. Enrollment limited to 20.

Spr BIOL1330 S01 25057 M 3:00-5:30(13) (G. Wessel)

BIOL 1420. Experimental Design in Ecology.
An overview and discussion of the basic principles used to design lab and field experiments in ecology and environmental science. Topics include: replication and statistical power, appropriate use of factorial designs, nonparametric methods, post hoc tests, natural versus manipulative experiments, experimental artifacts and impact study design. Discussions based on primary literature and a new text. Expected: BIOL 0420.

Fall BIOL1420 S01 15456 W 3:00-5:30(17) (J. Witman)

Population genetics considers the genetic basis of evolution: temporal changes in the genetic composition of populations in response to processes such as mutation, natural selection and random sampling effects. Starting from first principles, this course will develop a theoretical understanding of these dynamics. We will also explore the application of these tools to genomc-scale data in order to quantify the influence of various evolutionary processes at work in natural populations. Assessments will be based on problem sets, two midterm exams and one final exam. Prerequisites: MATH 0100 and one of BIOL 0470 or 0480, or permission.

Fall BIOL1430 S01 15459 MWF 11:00-11:50(16) (D. Weinreich)

BIOL 1440. Marine Biology.
An examination of current topics in the ecology of marine organisms and communities. Current literature and ideas are analyzed in a seminar format (5hr/week). A class research project provides hands-on experience with designing and interpreting experimental field work. Prerequisites: BIOL 0410 and 0420. Instructor's permission required.

Spr BIOL1440 S01 25391 TTh 1:00-2:20(08) (M. Berton)

BIOL 1470. 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 BIOL1470 S01 15475 TTh 9:00-10:20(02) (D. Sax)

BIOL 1480. 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 these changes mean for life on Earth. Instructor permission required.

Fall BIOL1480 S01 16860 MWF 10:00-10:50(14) (S. Porder)

BIOL 1495. 500 Million Years of Land Plants.
Explores the evolution of terrestrial plants and the ecosystems they structure. Introduces the fossil record of plants and basic patterns of plant diversification on land. Highlights major trends in the evolution of plant morphology, anatomy, and ecology. Lectures survey the diversity and community structure of different geological time periods. Weekly discussion sections, field trips, and assignments examine major evolutionary trends, particularly with regard to climatic changes over time. Expected: BIOL 0400, BIOL 0430, (or equivalent placement). Enrollment limited to 15 students; instructor permission; register for section and conference.

Fall BIOL1495 S01 15476 MWF 9:00-9:50(01) (A. Leslie)

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 immune 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 30. Graduate students must obtain instructor permission.

Fall BIOL1520 S01 15533 MW 8:30-9:50(01) (L. Brossay)
BIOL 1540. Molecular Genetics
Even in this era when whole genome DNA sequencing has become routine, there are still thousands of eukaryotic genes with unknown functions. Genetic screens for mutations that alter pathways of interest remain the premier approach to understanding gene function in the context of the organism. In Molecular Genetics students will learn the key concepts involved in designing and interpreting genetic screens using the powerful tools available in model animal, plant, and fungal organisms. Students will also learn how to understand and analyze results presented in the primary scientific literature. Furthermore, students will gain an appreciation of how the field of genetics has changed through discoveries and technological advances made over the past 50 years. Graduate students should register for BIOL 2540.
Spr BIOL1540 S01 25058 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 25147 MWF 11:00-11:50(04) (C. de Graffenried)

BIOL 1555. Methods in Informatics and Data Science for Health.
This course will teach informatics and data science skills needed for research in public health and biomedicine. Particular emphasis will be given to formalisms and algorithms used within the context of biomedical research and health care, including those used in biomolecular sequence analysis, electronic health records, clinical decision support, and public health surveillance. General programming language skills will be taught (in Julia) within these contexts. Mastery of informatics and data science skills will be assessed by a final project done within a health or biomedical context. Enrollment: 25 students. For biological science concentrators, graduate students enroll in PHP 2561.
Spr BIOL1555 S01 25327 TTh 10:30-11:50(09) (N. Sarkar)

BIOL 1560. Virology
Emphasized 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.
Fall BIOL1560 S01 16709 MWF 9:00-9:50(01) (A. Jamieson)

BIOL 1565. Survey of Biomedical Informatics.
Survey course provides overview of field of biomedical informatics. Topics include computer science, healthcare, biology, social science. This course is designed to be complementary to BIOL 1555. Emphasis given to understanding the organization of biomedical information, effective management of information using computer technology, impact of such technology on biomedical research, education, patient care. Major aim explores the process of developing and applying computational and information science techniques for assessing current information practices, determining information needs of health care providers and patients, developing interventions or supporting clinical practice using informatics, and evaluating the impact of informatics solutions from a biomedical perspective.
Fall BIOL1565 S01 16912 TTh 10:30-11:50(13) 'To Be Arranged'

BIOL 1600. Development of Vaccines to Infectious Diseases.
Provides background steps involved in vaccine development, from conceptualization to production to deployment. Considers infectious diseases and associated vaccines in context of community health. Appropriate for students wanting to gain an understanding of vaccine science. Provides the organization for advanced courses in immunology and infectious disease, biomedical research, or medical/graduate studies. Activities include a weekly section meeting for discussion of relevant primary literature, and a final project of the student's choice in the form of an in-class presentation, a research paper or an approved alternative format. Expected: BIOL 0200 or equivalent placement; BIOL 0530, and at least one additional biology course.
Spr BIOL1600 S01 25150 MW 3:00-4:20(10) (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. WRIT
Spr BIOL1800 S01 25581 TTh 10:30-11:50(09) (S. Swartz)

BIOL 1820. Environmental Health and Disease.
Humans live, work, and play in complex chemical environments. BIOL1820 examines how environmental exposures impact human health and contribute to disease. The course covers basic concepts in toxicology, epidemiology, and safety assessment, and is divided into 4 sections: radiation, lead, perfluorinated chemicals, and endocrine disruptors. For each section, students will examine the molecular mechanisms that mediate toxicity, learn how toxicant exposure impacts physiology, evaluate exposure risk, and discuss issues of environmental justice. Prerequisites: introductory level biology and chemistry. BIOL 1820 is designed for junior and senior undergraduates, and is open to others with permission.
Spr BIOL1820 S01 25323 TTh 10:30-11:50(09) (J. Plavíček)

BIOL 1870. Techniques and Clinical Applications in Pathobiology.
A methodology course featuring laboratory and lecture instruction in established and leading-edge technologies. Examples: flow cytometry (multi-parameter analysis, cell sorting); molecular biology (PCR, real time PCR, in situ hybridization, microarrays, DNA sequencing, bioinformatics); digital imaging (image acquisition, processing and analysis); confocal microscopy; histology and immunohistochemistry (confocal, immunohistochemistry).
Spr BIOL1870 S01 25324 TTh 1:00-3:50 (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 and comparative osteological material. Emphasis of course is on critical thinking rather than memorization of material. Recommended: BIOL 0320 or 0800. First year students must obtain instructor permission to register. Enrollment limited to 32. Students MUST register for the lecture section and the lab.
Spr BIOL1880 S01 25032 MWF 11:00-11:50(04) 'To Be Arranged'

Directed research/Independent study in biological sciences: basic science, social studies of biomedical science, and clinically-oriented projects, mentored by individual faculty members in the Division of Biology and Medicine. Sites include campus and hospital based facilities. Projects can serve as the basis for Honors theses, or to fulfill research requirements in a Bio-Med concentration program. Students planning to use 1950/1960 to fulfill a concentration requirement must receive approval from the concentration advisor. No more than two (2) semesters of BIOL 1950/1960 may be used toward a concentration program in the biological sciences. Faculty from outside the Division may supervise projects for bio-med program concentrators, but should do so using their Department's own Independent Study course number.

Directed research/Independent study in biological sciences: basic science, social studies of biomedical science, and clinically-oriented projects, mentored by individual faculty members in the Division of Biology and Medicine. Sites include campus and hospital based facilities. Projects can serve as the basis for Honors theses, or to fulfill research requirements in a Bio-Med concentration program. Students planning to use 1950/1960 to fulfill a concentration requirement must receive approval from the concentration advisor. No more than two (2) semesters of BIOL 1950/1960 may be used toward a concentration program in the biological sciences. Faculty from outside the Division may supervise projects for bio-med program concentrators, but should do so using their Department's own Independent Study course number.
BIOl 1970A. Stem Cell Biology.  
Senior seminar course will provide an interactive forum by which up to twenty seniors (and qualified juniors with permission) will explore the biology of stem cells from their humble beginnings in the embryo to their potential use in regenerative medicine. The potency and regulation of embryonic and adult stem cell populations derived from diverse organisms will be contrasted with laboratory-derived human stem-like cells for biomedical applications. Critical reading of classical and modern literature in the field of stem cell biology will form the basis of student-led presentations, papers and ethical forums. Expected: biochemistry, genetics and/or cell biology. Instructor permission; 20 students.  
Fall BIOl1970A S01 15538 M 2:00-4:30 (R. Freiman)

BIOl 2000C. Protein Biophysics and Structure: Molecular Basis of Disease.  
Proteins are the engines of life. Determining how they function from a biophysical and structural perspective enables us to understand how they work and, equally important, how we can direct and alter their activities. These types of efforts are the basis of all medicinal and drug research. Students will obtain a broad and firm foundation of both biophysical methods and in depth studies of medicinally important proteins and protein complexes that will allow them to correlate structure and biological function. Graduate course; open to junior and senior undergraduates with appropriate prior coursework. Instructor permission required; enrollment limit: 12 students.  
Spr BIOl2000C S01 25199 Arranged (M. Johnson)

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 25062 T 10:00-1:00 (N. Neretti)

This course, taken the second semester, goes in depth into the numerous strategies in biotechnology. Significant differences in the strategies of small companies versus large companies, and device companies versus drug companies will be discussed with ample use of biotechnology case studies. At the end of this course, the successful student will: Understand the process of managerial decision making in the pharma/ biotech industry  
Understand the basic principles of Decision Science, the application of quantitative analysis (modeling) to inform managerial decision making Gain exposure to basic frameworks and tools used by management consultants to define strategic options  
Spr BIOl2018 S01 24994 M 5:00-7:30 (Y. Jong)

This course provides a comprehensive overview of the primary functional roles and steps involved in developing and commercializing a novel technology/scientific breakthrough within the biotechnology industry. This course is particularly suitable for students interested in pursuing a career within a biotechnology company, or for those interested in developing an in-depth knowledge of how the science of biotechnology becomes real world products. Pre Requisites: Foundations of Living Systems (BIOl0020), Principles of Physiology (BIOl0080), and Principles of Economics (ECON0110)equivalent or instructor's permission is required.  
Fall BIOl2020 S01 15564 Th 4:00-6:30(04) (J. Scott)

A double-credit graduate course on multidisciplinary experimental approaches to biological questions. Focusing on primary literature, lectures and discussions cover the mechanisms 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 circuits (signaling, organelle biogenesis and inheritance, cell cycle control). Required for PhD students in the MCB Graduate Program; all others must obtain instructor permission. Enrollment is limited to graduate students.  
Fall BIOl2030 S01 15567 F 10:00-11:35 (A. DeLong)  
Fall BIOl2030 S01 15567 MTTh 9:00-10:20 (A. DeLong)

BIOl 2040. Ultrastructure/Bioimaging.  
This course examines microscopy and image analysis in the life sciences. Theoretical and practical aspects of microscopy will be discussed. Students will obtain hands-on experience with electron microscopy, light microscopy, fluorescence microscopy, and confocal microscopy. Students will learn to display images in 3D. For graduate students and advanced undergraduates. Instructor permission required.  
Spr BIOl2040 S01 25063 M 2:00-5:00 (G. Williams)

(Undergraduate students should register for BIOl 1050.)  
Fall BIOl2050 S01 15347 TTh 1:00-2:20(10) (K. Miller)

BIOl 2089. The Importance of Intellectual Property in Biotechnology.  
This course delves into the various roles of intellectual property in biotechnology. In addition to providing a solid foundation in the fundamentals of intellectual property, the course will use case studies in biotechnology to explore in depth the interplay between specific scientific breakthroughs and intellectual property. An understanding of the science of biotechnology is critical for advanced understanding of the value and possibilities of biotechnology intellectual property.  
Fall BIOl2089 S01 15668 W 4:00-6:30 (J. Morgan)

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 16455 M 3:00-5:30(05) (E. Mathiowitz)

BIOl 2125. Bioinformatics for Evidence to Improve the Discovery, Development and Use of Medicines.  
This course explores evidence used in decisions for discovery, development and use of medicines. Goals are i) learn issues and decision criteria for stakeholders in biomedical innovation, ii) understand challenges and emerging opportunities to improve the evidence used to make decisions over the life of a therapeutic, iii) apply this learning to develop a novel call for proposals for multi-stakeholder projects that integrate molecular and clinical knowledge for improving discovery, development and/or use of medicines for Parkinson’s disease or pancreatic cancer. Preference is given to graduate students in MPPB, Biotechnology and BME. Other qualified students may enroll with instructor's permission.  
Fall BIOl2125 S01 15681 Th 9:00-11:30 (R. Campbell)  
Spr BIOl2125 S01 25013 WF 10:30-11:50 (R. Campbell)

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 15688 W 2:00-5:30 (K. Mowry)  
Fall BIOl2150 S02 15687 W 2:00-5:30 (J. Bender)
BIOL 2156. Special Topics in Biotechnology Writing.  
This course is open to Biotechnology Masters students not involved in lab-based research. Students choose from a list of topics and faculty mentors in the field of biotechnology. Teams conduct in-depth research and writing, with the goal of producing a final report and presentation equivalent to a professional consultant's report. Students meet weekly with mentor to monitor progress. Prerequisite: BIOL 0280 and 1120; CHEM 0350/0360 or equivalent. Enrollment limited to 20 students. Instructor permission required. Course is offered in both, Semester 1 and 2, and may be repeated once for credit.  
Spr BIOL2156 S01 25025 Arranged (E. Mathiowitz)

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 15688 MWF 10:00-11:30 (D. Hornigan)

BIOL 2180. Experiential Learning Industry, ELI.  
Experiential Learning in Industry is restricted to biomedical engineering (BME) Sc.M. and biotechnology (Biotech) Sc.M. permission also required. The course is an extended in-depth learning experience in an industry environment related to the discipline of BME and Biotech. Industry environments include: medical device, pharmaceutical or biotechnology and industries that provide BME and Biotech relevant services to the aforementioned companies including patent law, licensing, regulatory and consulting. Students will pursue Experiential Learning in Industry during one summer plus one semester or during two semesters for which they will receive credit towards their degree. This course is restricted to BME and Biotech Masters students only. Students must have successfully completed the first year of the BME Masters Program. Slots are limited so permission is required.  
Fall BIOL2180 S01 15689 Arranged (B. Zielinski-Habershaw)
Spr BIOL2180 S01 25026 Arranged (B. Zielinski-Habershaw)

BIOL 2190. MPPB Professional Development 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.  
Fall BIOL2190 S01 15690 M 12:00-1:30 (D. Horrigan)

BIOL 2230. Biomedical Engineering and Biotechnology Seminar.  
Biomedical engineering and biotechnology are interdisciplinary fields that incorporate progress in biomedical sciences, the physical sciences, and engineering. To achieve success in these fields requires facility with interdisciplinary oral communication – this is the specific and practical focus of this course. Each week, students will give research presentations and receive feedback from the audience to help improve their public speaking skills.  
Fall BIOL2230 S01 15795 T 4:30-7:00 (E. Darling)

BIOL 2240. Biomedical Engineering and Biotechnology Seminar.  
See Biomedical Engineering and Biotechnology Seminar (BIOL 2230) for course description.  
Spr BIOL2240 S01 25027 T 4:30-7:10 (J. Morgan)

Blood serves many critical functions including respiratory gas transport, hemostasis and host defense. Plasma and cellular components of blood, their functional mechanisms, pathophysiologic consequences when deficient and current treatments will be reviewed. Finally, development of blood component substitutive therapeutics (blood substitutes) based on protein and cellular engineering technologies (biotherapeutics) will be discussed. Open to Graduates students and Juniors and Seniors who meet the pre-requisites BIOL 0800 and BIOL 0280 or with instructor's permission.  
Fall BIOL2245 S01 15805 MW 10:30-11:50 (H. Kim)

BIOL 2260. Pharmacological Physiology.  
The objective of this course 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. Course is relevant for students interested in medicine journalism, law, government, precollege teaching, biomedical research, and pharmacy. Expected: background in physiology. For graduate students ONLY register for BIOL 2260 (enrollment limit 15); all others BIOL 1260.  
Fall BIOL2260 S01 15808 TTh 10:30-11:50(13) (J. Marshall)

BIOL 2270. Advanced Biochemistry.  
(Undergraduate students should register for BIOL 1270.)  
Fall BIOL2270 S01 15816 TTh 2:30-3:50(03) (A. Deaconescu)

BIOL 2340. Neurogenetics and Disease.  
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 BIOL2340 S01 15836 W 3:00-5:50 (R. Reenan)

BIOL 2350. The Biology of Aging.  
Studying the mechanisms underlying the process of aging promises to be one of the next frontiers in biomedical science. Understanding the biology of aging is important for the long-term possibility of increasing life span, and for the immediate benefits it will have on age-related diseases. As demographics of industrialized countries have changed, age-related diseases such as cancer/cardiovascular/stroke, osteoporosis/arthritis/Alzheimer's have assumed epidemic proportions. Understanding the aging process is a pre-requisite for designing interventions for treatment. Focus is on examining the biology of aging through the examination of a molecular/cellular/genetic and demographic nature. Suggested prerequisites: BIOL 0200, 0280, 0470, 0800. Enrollment limited to 20. Advanced undergraduates with permission of instructor.  
Spr BIOL2350 S01 25064 Th 2:00-5:00 (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 have included: structuring of communities, biomechanics, coevolution, quantitative genetics, life history strategies, and units of selection. Expected: courses in advanced ecology and genetics.  
Fall BIOL2430 S01 16678 Arranged "To Be Arranged"
Fall BIOL2430 S02 16679 Arranged "To Be Arranged"
BIOL 2440. Topics in Ecology and Evolutionary Biology. See Topics In Ecology And Evolutionary Biology (BIOL 2430) for course description.

Spr BIOL2440 S01 25034 Arranged (D. Rand)
Spr BIOL2440 S02 25035 Arranged 'To Be Arranged'

BIOL 2450. Exchange Scholar Program.

Fall BIOL2450 S01 15100 Arranged 'To Be Arranged'
Fall BIOL2450 S02 15101 Arranged 'To Be Arranged'

BIOL 2528. Innovation and Commercialization in Medical Devices, Diagnostics, and Wearables.

This course provides a comprehensive overview of concepts and steps involved in developing and commercializing novel technology/scientific breakthroughs for medical devices, diagnostics and wearables. This course is particularly suitable for students interested in pursuing a career within a medical device segment, or creating innovation-based companies, as well as for those interested in developing an in-depth knowledge of evolution of medical devices from research concepts to products in the market.

Spr BIOL2528 S01 25028 Th 9:30-12:00 (M. Analoui)

BIOL 2540. Molecular Genetics.

Even in this era when whole genome DNA sequencing has become routine, there are still thousands of eukaryotic genes with unknown functions. Genetic screens for mutations that alter pathways of interest remain the premier approach to understanding gene function in the context of the organism. In Molecular Genetics students will learn the key concepts involved in designing and interpreting genetic screens using the powerful tools available in model animal, plant, and fungal organisms. Students will also learn how to understand and analyze results presented in the primary scientific literature. Furthermore, students will gain an appreciation of how the field of genetics has changed through discoveries and technological advances made over the past 50 years. Undergraduate students should register for BIOL 1540.

Spr BIOL2540 S01 25065 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 25151 W 4:30-5:20 (C. Biron)
Spr BIOL2640A S01 25151 F 2:00-3:40 (C. Biron)

BIOL 2860. Molecular Mechanisms of Disease.

This course is designed for graduate students and focuses on the underlying causes of human disease. Students should have a solid background in the life sciences with an understanding of the fundamental principles of molecular biology, genetics, biochemistry and cell biology. A discussion of cystic fibrosis, using this disease to explore basic principles of molecular biology, genetics, physiology and pathology. Then the course centers on the genetic and environmental basis of disease and carcinogenesis. Will lecture individual student presentations and experimental planning exercises. Emphasis will be placed on the development of presentation skills and research design. Undergraduates require instructor permission.

Fall BIOL2860 S01 16808 Arranged (T. Bartnikas)

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.

Fall BIOL2970 S01 15102 Arranged 'To Be Arranged'
Spr BIOL2970 S01 24052 Arranged 'To Be Arranged'

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.

Fall BIOL2990 S01 15103 Arranged 'To Be Arranged'
Spr BIOL2990 S01 24053 Arranged 'To Be Arranged'

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.

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 16703 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 25176 MWF 1:00-1:50(06) (J. Simmons)

NEUR 0680. Introduction to Computational Neuroscience.

An introductory class to computational neuroscience. Students will learn the main tools of the trade, namely differential equations, probability theory and computer programming, as well as some of the main modern neural-modeling techniques. Assignments will include the writing of simple Matlab code.

Spr NEUR0680 S01 25177 TTh 2:30-3:50(11) (L. Bienvenistock)

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 0010 or equivalent.

Spr NEUR0700 S01 25178 MW 3:00-4:20(10) (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 25179 TTh 9:50-10:20(01) (C. Azzenman)

NEUR 1030. Neural Systems.

This lecture course examines key principles that underlie the function of neural systems ranging in complexity from peripheral receptors to central mechanisms of behavioral control. Prerequisite: NEUR 0010 or the equivalent. First year students require instructor approval.

Fall NEUR1030 S01 16708 TTh 10:30-11:50(13) (M. Linden)
NEUR 1040. Introduction to Neurogenetics. Recent advances in molecular biology and molecular genetics have allowed researchers to test specific hypotheses concerning the genetic control of behavior and neurological disease. This course will familiarize you with the relatively new and exciting field of neurogenetics. We will cover basic topics, new ideas, and unsolved problems in neurogenetics primarily through the two assigned texts. However, neurogenetics is essentially a "frontier" area in neuroscience, and the best way to approach this topic is by scientific literature, which will be covered in some lectures.

NEUR 1440. Neural Dynamics. Neurons and systems of neurons vary in their activity patterns on millisecond to second time scales, commonly referred to as "neural dynamics." This course addresses mechanisms underlying this flexibility and its potential meaning for information processing in the brain. The course integrates biophysical, computational, single neuron and human studies. To express interest, please add this course to your primary cart. The decision will be made based on a variety of factors including, but not limited to seniority, concentration requirement.

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. Instruction on and practice of effective science writing is another component to this course. Labs are supplemented by informal lectures. Enrollment limited to 18.

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, NEUR 1020, and NEUR 1030.

NEUR 1670. Neuroparmacology 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.

NEUR 1740. The Diseased Brain: Mechanisms of Neurological and Psychiatric Disorders. The goals of this course are 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 monogenic diseases (e.g. Fragile X Syndrome, Duchenne Muscular Dystrophy and Tuberosclerosis) 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 1020. BIOL 0470 suggested.

NEUR 1930H. Neurological Disorders: Neural Dynamics + Neurotechnology. A seminar course on neural dynamics and therapeutic approaches based on open-/closed-loop Brain-Computer Interfaces (BCIs) and neuromodulation for neurological and neuropsychiatric disorders. Topics include: (1) Disorders of consciousness: loss-of-consciousness in generalized epileptic and psychogenic seizures; closed-loop seizure control; Coma, medically induced coma and general anesthesia; Neuromonitoring of consciousness; (2) BCIs for auditory/visual/ somatosensory disorders; (3) Movement disorders: BCIs for restoring movement/communication; adaptive-DBS for Parkinson's disease and essential tremor. (4) Neuropsychiatric disorders: DBS for major depression and obsessive compulsive disorder. To sign up, add this course to your cart. Enrollment is based on a variety of factors such as: seniority, concentration requirement.

NEUR 1930J. Neural Correlates of Consciousness. This course will consider the neuroscience of consciousness from a variety of perspectives, using examples from behavior, neurophysiology, neuroimaging and neurology. The course content will focus on primary literature, using review articles for background. Students will lead discussions. Sign-up required by Google Docs. Strongly Recommended: NEUR 1030. Enrollment limited to 15. Instructor permission required.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 25188 Arranged (G. Barnea)

Focuses on cognitive approaches to study nervous system function. Lectures and discussions focus on neurophysiology, neuroimaging and lesion analysis in mammals, including humans. Cognitive neuroscience approaches will become integrated into the material. Topics include the major sensory, regulatory, and motor systems. Enrollment limited to graduate students.

Fall NEUR2050 S01 16740 Arranged (T. Desrochers)

NEUR 2060. Advanced Systems 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.

Spr NEUR2060 S01 25190 Arranged (D. Sheinberg)

NEUR 2110. Statistical Neuroscience.
A lecture and computing lab course for senior undergraduate and graduate students with background in either systems neuroscience or applied math/biomedical engineering on the statistical analysis and modeling of neural data, with hands-on Matlab/Octave/Python-based applications to real and simulated data. Topics will include signal processing, hypothesis testing and statistical inference, modeling of multivariate time series and stochastic processes in neuroscience and neuroengineering, neural point processes, time and spectral domain analyses, and state-space models. Example datasets include neuronal spike trains, local field potentials, ECoG/EEG, and fMRI. Sign-up sheet in Sidney Frank Hall, Room 315 beginning on the first day of registration. Instructor permission required.

Fall NEUR2110 S01 16807 Arranged (W. Truccolo)

NEUR 2150. Cells and Circuits of the Nervous System.
Selected topics on the biology of neurons and neuronal networks emphasizing original research literature about the membrane physiology, transmitter function, synaptic plasticity, and neural interactions of different vertebrate central nervous systems. Primarily for graduate students with a background in basic neurobiology, or undergraduates with permission. Offered alternate years.

Fall NEUR2150 S01 16742 Arranged (B. Connors)

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 on the first day of registration.

Spr NEUR2160 S01 25203 Arranged (R. Patrick)

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.

Fall NEUR2970 S01 15183 Arranged (D. Sheinberg)
Spr NEUR2970 S01 24101 Arranged (D. Sheinberg)

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. SINC

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 for a thesis.

Fall NEUR2990 S01 15164 Arranged 15165 Arranged
Spr NEUR2990 S01 24102 Arranged 24104 Arranged (D. Lipscombe) (D. Lipscombe)

Medical Education

For students enrolled in the Primary Care-Population Medicine program at Alpert Medical School, this course is structured to allow students to conduct research focused on population health with a mentor at Brown University.

Business, Entrepreneurship and Organizations

BEO 1930A. BEO Capstone I: Organizational Studies Track.
The first in a two-semester Capstone for BEO Organizational Studies track seniors, open to all BEO seniors. Capstone builds upon concepts covered in BEO courses, specifically concepts from SOC 1311 and 1315. Students will synthesize knowledge at several levels: across disciplines, across theoretical understanding and practical application, and across private and public sector experiences of entrepreneurship and innovation. Students will be organized into client-mentored teams for social entrepreneurship and social innovation projects. BEO 1930A (fall) required; 1940A (spring) strongly advised for all Organizational Studies track seniors. Application required to match students to projects. Project team meetings required outside scheduled lectures. WRIT

Fall BEO1930A S01 15264 Th 1:00-2:20(10) ‘To Be Arranged’

BEO 1930B. BEO Capstone I: Entrepreneurship and Technology Management Track.
The first in a two-semester Capstone required of BEO Tech track seniors. Student teams from Engineering, BEO and other technical and non-technical disciplines form simulated high tech start-up companies working on mentor-defined opportunities. Concepts reviewed in class include: product commercialization, intellectual property, marketing, product requirements documentation, team building, safety, environmental and legal requirements. BEO Tech track concentrators should complete ENGB 1010 prior to course. Enrollment is limited. Students must complete formal application (BEO Tech track seniors automatically approved). Project team meetings required outside scheduled lectures. Non-BEO concentrators require instructor permission. WRIT

Fall BEO1930B S01 15265 Th 1:00-2:20(10) ‘To Be Arranged’

BEO 1930C. BEO Capstone I: Business Economics Track.
Designed for BEO Business Economics track seniors, this capstone is open to all BEO students, and builds upon BEO concepts in economics, finance, strategy and markets. Students form teams to solve existing business problems, simulating groups of consultants. Projects range from recommending appropriate finance for new investments to project evaluation and pricing of new services. Student teams have client-mentors. Students apply analytical frameworks of BEO disciplines to hone writing, presentational, leadership and organizational skills. Application required to match students to projects. Project team meetings required outside scheduled lectures. WRIT

Fall BEO1930C S01 15266 Th 1:00-2:20(10) ‘To Be Arranged’

BEO 1940A. BEO Capstone II: Organizational Studies Track.
Continuation of Semester 1, BEO Capstone I: Organizational Studies Track (BEO 1930A). This course involves the completion of team projects begun in fall semester. WRIT

Spr BEO1940A S01 24177 Th 1:00-2:20(08) ‘To Be Arranged’

BEO 1940B. BEO Capstone II: Entrepreneurship and Technology Management Track.
Continuation of Semester 1, BEO Capstone I: Entrepreneurship and Technology Management Track (BEO 1930B). This course involves the completion of team projects begun in fall semester. Non-BEO concentrators require instructor permission. WRIT

Spr BEO1940B S01 24178 Th 1:00-2:20(08) (S. Petteruti)
### Course Descriptions

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

**CHEM 0320. Equilibrium, Rate, and Structure.**
Explores the electronic structure of atoms and molecules, thermodynamics, solution equilibrium, electrochemistry, chemical kinetics, and reaction mechanisms. Course includes lecture and laboratory sections. Laboratory cannot be taken without the lecture. Students who previously passed 0320 lab may be excused from repeating the lab portion of the course. Required background: CHEM 0100 or AP Chemistry 4 or CHEM Placement Test 8 or IBC Chemistry.

**CHEM 0300. Organics.**
Sequel to CHEM 0300. 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 prelab and laboratory. Prerequisite: CHEM 0300.

**CHEM 0350. 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 as well as current research topics in 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.

**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.**
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 0360, A or B performance preferable) plus at least one semester of Biochemistry (BIOL 0280). Enrollment limited to: 25 students, written permission required.
CHEM 150N. Organometallic Chemistry. This course intends to help students understand structures and reactions of transition metal complexes with common organic ligands: 18-electron rule; the structure and properties of transition metal complexes with carbonyl and other common organic ligands: chemical reactions initiated by metal-organic bonding interactions; and organometallic catalysis. Prerequisites: CHEM 0360 and CHEM 0500. PLEAS NOTE: This class is WRIT designated for Undergraduates Only. Graduate Students register for CHEM2310. WRIT Fall CHEM1560 S01 16349 TTh 10:30-11:50(13) (J. Robinson) 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. Prerequisites: CHEM0350, PHYS 0030 or 0050, BIOLOG280 recommended. Fall CHEM1700 S01 15698 MWF 11:00-11:50(16) ’To Be Arranged’ 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 transitions, thermal radiation, gas expansions. Fall CHEM2010 S01 15710 TTh 9:00-10:20(02) ’To Be Arranged’ 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 24913 MWF 9:00-9:50(02) ’To Be Arranged’ CHEM 2310. Organometallic Chemistry. This course intends to help students understand structures and reactions of transition metal complexes with common organic ligands: 18-electron rule; the structure and properties of transition metal complexes with carbonyl and other common organic ligands: chemical reactions initiated by metal-organic bonding interactions; and organometallic catalysis. Prerequisites: CHEM 0360 and CHEM 0500. Fall CHEM2310 S01 16350 TTh 10:30-11:50(13) (J. Robinson) CHEM 2320. Solid State Chemistry. This course focuses on descriptive understanding of structures and properties of inorganic materials. It covers symmetry operations in crystals, crystal structure, physical properties of inorganic materials, materials phase diagram and preparation, and solid state electrochemistry for battery, fuel cell and supercapacitor applications. Prerequisites: CHEM 0500 and 1050 or equivalents or written permission. Recommended for seniors and first-year graduate students. Spr CHEM2320 S01 24914 TTh 10:30-11:50(09) ’To Be Arranged’ 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, carboxylans, carbanions, and carbenes. Fall CHEM2410 S01 16352 MWF 10:00-10:50(14) ’To Be Arranged’ 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 16485 TTh 9:00-10:20(02) ’To Be Arranged’ CHEM 2770. Quantum Mechanics. Semester I: Time independent quantum mechanics and its application to atomic and molecular problems. Discussions of modern theories of electronic structure, chemical bonding, and molecular spectroscopy. Prerequisite: CHEM 1140 or equivalent. Fall CHEM2770 S01 15707 TTh 10:30-11:50(13) ’To Be Arranged’ CHEM 2780. Quantum Mechanics. Semester II: Lectures focus on the theory and application of electronic structure methods to describe both time-independent and time-dependent phenomena in chemical physics. Modern methods including Hartree-Fock Theory, Moller Plesset Perturbation Theory, Configuration Interaction, Coupled Cluster Theory, and Density Functional Theory will be described. Numerical techniques for implementing these methods will also be introduced and applications based upon problems in molecular spectroscopy will be outlined. Prerequisite: CHEM 2770. Spr CHEM2780 S01 24915 TTh 9:00-10:20(01) ’To Be Arranged’ CHEM 2870. Departmental Colloquia. Open to first year chemistry graduate students only. Fall CHEM2870 S01 15708 F 4:00-5:20 ’To Be Arranged’ Spr CHEM2870 S01 24916 F 4:00-5:20 ’To Be Arranged’ CHEM 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. Fall CHEM2970 S01 15104 Arranged ’To Be Arranged’ Spr CHEM2970 S01 24054 Arranged ’To Be Arranged’ CHEM 2980. Research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. CHEM 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. Fall CHEM2990 S01 15105 Arranged ’To Be Arranged’ Spr CHEM2990 S01 24055 Arranged ’To Be Arranged’ CHEM XLIST. Courses of Interest to Students wishing to Study Chemistry.

Classics

Classics

CLAS 0150. Ancient Philosophy. Ancient Greek views about the prospects and limits of reason in the human being’s search for a good and valuable life. What the best life is; how, and how far, reason can provide for its realization; what social/political conditions it requires; how vulnerable it is (and should be) to uncontrolled happenings. Authors include Euripides, Thucydides, Plato, Aristotle, Epicurus, Lucretius, Augustine, and Dante. WRIT Fall CLAS0150 S01 16171 MWF 12:00-12:50(12) (M. Gill)
CLAS 0660. The World of Byzantium.
Caught between the East and West, the culture of Byzantium inherited the ancient worlds of Greece, Rome, and Jerusalem, nurturing many a modern ideology, conflict, and identity. Byzantium is explored through its history, texts, and art. We examine the foundation and history of Constantinople, Iconoclasm, the Crusades, medieval Christianity and Islam, Byzantine court life, concepts of gender, self, and sexuality.
Spr CLAS0660 S01 24547 TTh 1:00-2:20(08) (E. Papaioannou)

What do video vixens and Foxy Brown have in common with "Witchy Woman"? These modern metaphors continue a long history of equating female sexual allure with dangers found in or capable of subverting Nature. This course will use contemporary methodologies to make sense of similar descriptions of women found in Greco-Roman literature: how do the Greeks and Romans express a concern about gender, ethnicity, class, and/or politics using these metaphors? How do these same categories help distinguish what is "natural" from "unnatural"? To what end does this discourse about women and nature affect law, public space, or other aspects of "civilization"?
Fall CLAS0765 S01 16933 TTh 9:00-10:20(02) (S. Ecleston)

CLAS 0780. From Antiquity to the Humanities (via Humanism) and the History of Ideas.
This course looks at the origins of several subjects in the Humanities in order to explain, question, and sometimes challenge the ways in which those subjects are studied or understood today. Consideration of sources for the Humanities today – in the educational practices of classical antiquity, in the 'humanism' of the Renaissance and in the 17th-20th centuries—will throw new light on ideas and categories which are central to western education. Topics include grammar/language, persuasive argument, scholarship; theory/practice of history, literature, poetry, fiction, fantasy, and the novel; relationship between words and images, and connections between studying the Humanities and being human.
Fall CLAS0780 S01 16176 TTh 1:00-2:20(10) (A. Laird)

CLAS 0855. The Bhagavad Gītā.
This course will study and discuss the teachings of the Bhagavad Gītā in the context of its literary, theological, and philosophical origins in ancient India. We will read the text itself (in English, not Sanskrit), parts of the epic Mahābhārata in which the Gītā is situated, and collateral texts, such as Upanisads, Indian myths, Buddhist sermons, or even modern novels, that may shed light on why and how this text has exercised such far-reaching influence across the ages, inside India and beyond. DPLL WRIT
Spr CLAS0855 S01 24546 TTh 1:00-2:20(08) (D. Buchta)

CLAS 0900. Greek Mythology.
"What of these things goes now without disaster?" -Aeschylus, Agamemnon
This course is an introduction to ancient Greek mythological traditions. Topics include the Olympian gods; 'culture heroes' (e.g. Heracles), Homer and the Trojan Cycle of myths; mythical traditions about the families of Oedipus and Agamemnon; etc. We will conclude with an investigation of ancient mythical scholarship and skeptical views of myth in antiquity. We will also consider myth's relationship with storytelling, literature, visual culture, and religion. The class focuses on the ancient source material (texts, images, monuments, etc.), but there will be some secondary readings in mythological and cultural theory.
Spr CLAS0900 S01 24536 MWF 1:00-1:50(06) (S. Kidd)

CLAS 1120G. The Idea of Self.
Literature gestures us toward a certain kind of knowledge not quite psychological, not quite philosophical. We read widely in the classical and medieval traditions in order to gauge the peculiar nature of what this knowledge tells us about experience and the ways in which expressions of selfhood abide or are changed over time. Authors include but are not limited to Sappho, Pindar, Catullus, Horace, Augustine, and Fortunatus. WRIT
Fall CLAS1120G S01 16169 MWF 2:00-2:50(07) (J. Pucci)

CLAS 1120Q. Seven Wonders of the Ancient World.
"Everyone has heard of the Seven Wonders of the World," wrote Philo of Byzantium two millennia ago, and it's still true today. But what's a "Wonder"? And why seven of them? Why make such a list anyway, then or now? This class will use ancient texts, explorers' accounts, and archaeological investigations to travel through several thousand years of history in the Mediterranean and Near Eastern world. We will consider how the Seven Wonders captured past imaginations; the aura of technological achievements; the intersections of history, memory, invention, and myth; and how members of one culture view another culture's monuments.
Fall CLAS1120Q S01 16170 MWF 2:00-2:50(07) (J. Cherry)

CLAS 1120U. The American Presidents and the Western Tradition.
We are accustomed to engaging the American presidency as a public office best approached through the prism of government or political science, but this course studies the ways in which the presidents in thought and action are part of a larger continuum of humanistic expression in the western tradition. It is organized around five categories: memory, language, consolation, farewell, and self-reflection. Our work involves reading and viewing/listening to various materials, including videos and original documents. The words we study, both by and about presidents, will be compared to various masterworks of Greco-Roman antiquity and the western Middle Ages.
Spr CLAS1120U S01 24750 MWF 2:00-2:50(07) (J. Pucci)

CLAS 1120W. Aristotle.
A close study of Aristotle's major works: his method, natural philosophy, psychology, metaphysics, with main emphasis on his ethics. Readings from original sources (in translation) and some contemporary material. The class will combine lectures and discussion and is a writing course.
Spr CLAS1120W S01 24553 TTh 6:40-8:00PM(18) (M. Gill)

CLAS 1120Z. Literature of Empires.
This course compares and contrasts the literatures of the ancient empires of East and West Asia (including the Mediterranean), with an emphasis on Chinese and Greco-Roman cultures. We will explore the literary discourses that grew up in support of and in opposition to imperialism and colonization; specific topics may include how empires use mythology, how tensions between centers and peripheries create imperial identities, how an empire assimilates a multicultural past, the constitution of archives, and what "classic" means to different audiences. All readings will be in English.
Spr CLAS1120Z S01 24939 TTh 2:30-3:50(11) (J. Reed)

Indian Religions have featured some prominent female figures: fierce goddesses, domestic goddesses, legendary women sages, and historical women poets. These figures can be used to empower female authority and agency, but can also be used to construct normative gender roles that limit societally accepted agency for women. This course will explore the canonical narratives of these prominent female figures and the reception of these narratives in various historical contexts. It will also examine the contemporary reception of these figures, looking both at those who champion the progressive possibilities they represent as well as feminist and subaltern critiques.
Fall CLAS1145 S01 16990 TTh 2:30-3:50(03) (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 16165 TTh 10:30-11:50(13) (J. Bodel)
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. WRIT Spr

CLAS 1750H. Heroes and Heroism in Graeco-Roman Antiquity and Beyond.
Examines the concept of hero, an ancient Greek word, which has 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

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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. The premodern Mediterranean (from roughly the fifth century BCE to the fifteenth century CE) gives us a variety of forms of 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.

CLAS 1750T. Ancient Novel.
Sex, pirates, powerful goddesses, and mistaken identities: these are just some of the aspects of the so-called Ancient Novel and its parodies. In this course we will investigate how a few fictional texts from the 1st-3rd centuries A.D. construct their characters’ gender and sexuality, and therefore reflect concerns about wisdom, power, and difference within the Roman Empire.

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 practices.

CLAS 2450. Exchange Scholar Program.
Fall

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.

Greek

GREK 0100. Essentials of the Greek Language.
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 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. This course focuses on translation and comprehension of Classical Greek prose. The goal is to expand your vocabulary, increase your ease with morphology, and deepen your understanding of syntax as each of these elements of the language interact with each other. The primary text will be Plato’s Symposium, in which Socrates and other guests at a drinking party consider the nature of love, ἔρως and its role in personal relationships, education, and even politics.

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 1100H. Lyric Poets of Ancient Greece.
In ancient times, nine men and women were canonized as the supreme lyric poets of Greece: Alcman, Sappho, Alcaeus, Anacreon, Steichichus, Ibycus, Simonides, Baccylides, and Pindar. In this class we will read from the surviving work with close attention to all aspects of their accomplishment, including performance, meters, diction, genre, and social context, and we will also explore wide-ranging questions of their subsequent influence and translation. Pre-Requisite: Students should have completed a beginning level of Greek, or the equivalent.

GREK 1110B. Plato, Phaedrus.
We will read in Greek Plato’s dialogue *Phaedrus* on love and rhetoric. We will attempt to understand the dialogue as a unified whole, discussing such questions as the link between love and the art of persuasion, Plato’s denigration of writing, and the relationship between rhetoric and philosophy.
Grek 110S. Xenophon. What discourse was there about running the state in Xenophon’s work? Grek 1060 reflects on tyranny, democracy, and oligarchy under the critical eye of the Old Oligarch (Xenophon) Constitution of the Athenians and Xenophon’s Hieron, Constitution of the Spartans, and Poroi. This advanced Greek language and literature course enhances participants’ knowledge and understanding of Greek, develops an appreciation of important themes and current research into Xenophon and his minor works, and improves the student’s capacity to translate and comment on ancient Greek text. Assessment is by a combination of translation, commentary, essay assignments, and examinations.

Fall Grek110SS01 16175 MWF 1:00-1:50(06) (G. Oliver)

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 analyzed in class. Students 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.

Fall Grek1150 S01 24523 MWF 10:00-10:50(03) (S. Kidd)

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.

Fall Grek1810 S01 16157 MWF 9:00-9:50(01) (P. Nieto Hernandez)

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 2020E. Greek Choral Lyric: Pindar and Bacchylides. Choral lyric played an essential role in the religious, cultural, and festive life of the Greeks in the fifth century B.C. Both Pindar and Bacchylides were acclaimed as masters of this art, and their compositions were performed in all parts of the Greek world. With proper preparation, we can enjoy in their original language their elevated poetry and appreciate the information it harbors concerning myth, local traditions, economics and power relations of class and gender. We will also consider such topics as the circumstances of their performance, literary sources and allusions, and the poets’ social position.

Spr Grek2020ES01 24831 Th 4:00-6:30(17) (P. Nieto Hernandez)

Grek 2110F. Greek Palaeography and Premodern Book Cultures. Introduction to pre-modern Greek book culture and the study of Greek literary texts from classical antiquity to the Renaissance. Students become acquainted with the history of books, the context and agents of their production, and the transmission of Greek (classical as well as post-classical) literature. Training is provided in reading and dating different scripts and in editing ancient texts.

Fall Grek2110FS01 16180 Th 4:00-6:30(04) (E. Papaioannou)

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.

Fall Grek2970 S01 15134 Arranged "To Be Arranged"
Spr Grek2970 S01 24078 Arranged "To Be Arranged"

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.

Fall Grek2990 S01 15135 Arranged "To Be Arranged"
Spr Grek2990 S01 24079 Arranged "To Be Arranged"

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 16163 Th 12:00-12:50(14) (J. Reed)
Fall Latn0100 S01 16163 MWF 10:00-10:50(14) (J. Reed)

Latn 0110. Introduction to Latin. Intensive, one-semester introduction to Latin. No previous knowledge of Latin is required.

Spr Latn0110 S01 24518 Thh 12:00-12:50(02) "To Be Arranged"
Spr Latn0110 S01 24518 MWF 9:00-9:50(02) "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 prior to taking this course sequence.

Spr Latn0200 S01 24524 Th 12:00-12:50(03) "To Be Arranged"
Spr Latn0200 S01 24524 MWF 10:00-10:50(03) "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 16158 MWF 9:00-9:50(01) "To Be Arranged"

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 24519 MWF 9:00-9:50(02) "To Be Arranged"

Latn 1040B. Virgil: Aeneid. Close reading of selections from all twelve books of Virgil’s epic.

Fall Latn1040BS01 16178 Thh 10:30-11:50(13) (A. Laird)

Latn 1060G. Tacitus. Will examine the literary and historical significance of Tacitus’ Annals. In addition to reading the entire Annals in English, we will focus on books 1 and 4 of the Latin text, translating 6-8 pages per week (time permitting), we will also practice some sight-translations from book 14). In an effort to understand Tacitus’ place in the ancient historiographical tradition, we will read several secondary sources, many of which respond to (or build on) Ronald Syme’s monumental work. Not open to first year students.

Fall Latn1060GS01 16178 Thh 2:30-3:50(03) (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 poems written to the poet’s friends.

Fall Latn1110FS01 16168 MWF 11:00-11:50(16) (J. Pucci)

Latn 1110H. Literature at the Court of Charlemagne. We will read widely in the Latin literature of the eighth and ninth centuries, paying attention to genre, meter, patronage, and the shifting uses put to poetry in the decades in which Charlemagne ruled.

Spr Latn1110HS01 24526 MWF 11:00-11:50(04) (J. Pucci)
LATN 1110P. Lucan’s Civil War.  
We shall read closely Books 1 and 2 plus further selections from all ten books of Lucan’s epic. Focus will be on translation of the Latin as well as consideration of the poem in its literary and historical context. Neronic Rome. Topics of discussion will include Lucan’s choice and treatment of his historical subject (the Civil War between Caesar and Pompey), his use of highly rhetorical (and often gruesome) language, and his relationship with the epic tradition and, more specifically, with his most significant epic predecessor, Vergil. We shall also read the entire poem in English translation.

Spr LATN1110P S01 24544 TTh 2:30-3:50(11) (S. Ecleston)

LATN 1820. Survey of Roman Literature II: Empire.  
This course will survey the major authors of Latin literature in chronological order from Virgil.

Spr LATN1820 S01 24527 TTh 10:30-11:50(09) (J. Reed)

LATN 1930B. Ammianus Marcellinus.  
In brilliant if idiosyncratic language, Ammianus Marcellinus, last of the major Latin historians, records the exciting and fateful events of his own times, the fourth century A.D., including therein his personal and dramatic involvement in events. We will chiefly read his famous account of the deeds of the emperor Julian (“the Apostate”). The course is intended for advanced students.

Spr LATN1930B S01 24540 MWF 2:00-2:50(07) (D. Ivanisевич)

LATN 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.

LATN 2080F. Latin in America.  
Exploration of some of the rich and extensive ‘neo-Latin’ writing from colonial Spanish America, with particular emphasis on poetry and literary prose from sixteenth-century Mexico, much of which has never been studied or translated. Latin satires, epigrams, bucolic poems, literary epistles and dialogues will be examined in relation to their classical models and influences – and in the context of the multicultural environment in which they were produced. As well as opening a new world of Latin, this course will familiarize you with the format of some early modern books and manuscripts, and offer a unique perspective on traditional classical literature.

Spr LATN2080F S01 24551 M 3:00-5:30(13) (A. Laird)

LATN 2090I. Augustan Literature and Egypt.  
This seminar studies Hellenistic influence on Latin poetry and Roman ideology in the period of Rome’s slide from a dysfunctional oligarchy to an autocracy. We will focus on how such authors as Virgil, Horace, Propertius, and Ovid assimilate and transform the imperial literature of the Greek East in the time of Augustus’ conquest of Egypt, both accommodating a poetics of monarchy and opening up adversarial standpoints within the same discourse. We will also look at earlier and later Latin poetry and prose texts to place this poetry within literary and political history.

Fall LATN2090I S01 16518 M 3:00-5:30(05) (J. Reed)

LATN 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.

Fall LATN2970 S01 15152 "To Be Arranged"
Spr LATN2970 S01 24094 "To Be Arranged"

LATN 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.

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

Fall LATN2990 S01 15153 "To Be Arranged"
Spr LATN2990 S01 24095 "To Be Arranged"

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 16172 MTWTh 12:00-12:50 (E. Amanatidou)

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 24528 MTWTh 12:00-12:50 (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 16161 TTh 9:00-10:20(02) (E. Amanatidou)

MGRK 0400. Intermediate Modern Greek.  
A continuation of MGRK 0300. New 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 24520 TTh 9:00-10:20(01) (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 16182 Arranged (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 24555 Arranged (E. Amanatidou)
MGRK 0810. Film Classics: The Greeks on the Silver Screen.  
This course examines the adaptation of classical Greek themes and figures in world cinema. Proceeding from classical texts (that will include The Odyssey, The Iliad, Oedipus Rex, Medea, The Oresteia), analysis of films focuses on the ways such texts are recast to comment upon very different cultural, socioeconomic, and political circumstances. How do such films aspire to be “classical” in their own right? What genres or modes follow such films’ epic, or anti-epic, cycles? Considers Hollywood blockbusters (Ulysses, Jason and the Argonauts, Troy, 300) as well as arthouse fare by Godard, Pasolini, Camus, Merchant, Cacoyannis, Dassin, the Coen brothers, Angelopoulos.  
Fall MGRK0810 S01 16185 TTh 1:00-2:20(10) (V. Calotychos)

In the past few years, we have all experienced, most of us through the media, what has been called a migration crisis. And yet, migration as a phenomenon did not appear in 2015; it is as old as humanity, and displacement and contemporary forced migration have also a long history. In this course, we will examine the historical, material and experiential dimensions of contemporary displacement and migration. Many of the examples will be from Greece but also other parts of Mediterranean and beyond, including from the Mexico-US border. Engaged Scholarship Course.  
Spr MGRK1210 S01 25732 TTh 10:30-11:50(09) (To Be Arranged) 

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 16173 TTHF 12:00-12:50 (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 Damayānti from the Mahābhārata. Prerequisite: SANS 0100.  
Spr SANS0200 S01 24529 TTHF 12:00-12:50 (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 16183 Arranged (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 24556 Arranged (D. Buchta)

SANS 1080. The Critical Episodes of the Mahābhārata.  
A guided tour of the structure of the Mahābhārata, "The Great Epic of India," through the reading in Sanskrit of selected critical passages.  
Fall SANS1080 S01 16166 TTh 10:30-11:50(13) (J. Fitzgerald)

SANS 1600. Sanskrit Belles Lettres.  
Introduction to kāvya (classical Sanskrit belles lettres)—poetry, drama, and prose narrative—through the reading of authors of the Classical Period as well as works on aesthetics and commentaries upon them.  
Spr SANS1600 S01 24521 TTh 9:00-10:20(01) (J. Fitzgerald)

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 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.  
Fall SANS2970 S01 15185 Arranged (To Be Arranged) 
Spr SANS2970 S01 24118 Arranged (To Be Arranged)

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

Cognitive, Linguistic and Psychological Sciences
This course will provide an interdisciplinary approach to the science of the mind through lens of psychology, cognitive science, cognitive neuroscience, behavioral neuroscience, computational modeling and linguistics, as uniquely represented by our department. It will focus on questions that drive the field, current state-of-the-art, and successful techniques and approaches. Questions addressed will include: What is the nature of the human mind? How do we get input from the world? How do we communicate? How do we change as infants and adults through experience? How do we make decisions and judgments? How do minds meet other minds in a social world? WRIT  
Fall CLPS0010 S01 16576 MWF 11:00-11:50(16) (F. Festa)

CLPS 0050A. Computing as Done in Brains and Computers.  
Brains and computers compute in different ways. We will discuss the software and hardware of brains and computers and with introduction to the way brains are organized, the way computers are organized, and why they are good at such different things. We will talk about our current research, the Ersatz Brain Project, an attempt to design a first-class second-class brain. Enrollment limited to 15 first year students. FYS  
Fall CLPS0050A S01 16577 MWF 11:00-11:50(16) (J. Anderson)

In a series of theoretical articles, Melvyn Goodale and his collaborators have proposed that separate, but interacting visual systems have evolved for the perception of objects on the one hand and the control of actions directed at those objects on the other hand. This seminar will cover the basic literature addressing this problem with studies involving human and animal studies. Enrollment limited to 19 first year students. FYS  
Fall CLPS0050B S01 17058 M 3:00-5:30(05) (F. Domin)

The topic of this course is the scientific study of animal behavior, based on the theoretical framework proposed by Nobel Prize winner Niko Tinbergen. This framework addresses four basic questions about behavior: its evolutionary history, its function, its development, and its causation (underlying mechanisms). Using Tinbergen’s framework, we will study two major categories of behavior – mating and aggression – in a range of animal species.  
Fall CLPS0110 S01 16578 MWF 12:00-12:50(12) (A. Simmons)

CLPS 0200. Human Cognition.  
Introduction to theoretical issues and empirical findings motivating controversies in human cognition. Basic issues in cognition - including attention, memory, categorization, reasoning, decision making and problem solving will be examined. Emphasis will be on experimental methods and formal theories.  
Spr CLPS0200 S01 25083 MWF 10:00-10:50(03) (K. Spoehr)
CLPS 0220. Making Decisions.
Life is full of decisions. Some decisions are made rationally, others could be improved. This course considers the psychology of human decision-making, the analysis of optimal decision-making, and implications for individual action and social policy. Topics include: chance and preference (e.g., how do consumers weigh attributes when making purchases?); the value of information (e.g., when should physicians order expensive diagnostic tests?); risky choice (e.g., is it rational to play the lottery?).
Spr CLPS0220 S01 25097 TTh 10:30-11:50(09) (S. Sloman)

CLPS 0300. Introduction to Linguistics.
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 that govern how sounds are put together), syntax (the rule system governing sentence structure), and semantics (the system that relates sentences to meanings).
Fall CLPS0300 S01 16588 TTh 10:30-11:50(13) (S. AnderBois)

CLPS 0400. Cognitive Neuroscience.
This course provides an introduction to the neuroscientific study of cognition. Topics surveyed in the course include the neural bases of perception, attention, memory, language, executive function, emotion, social cognition, and decision making. In covering these topics, the course will draw on evidence from brain imaging (fMRI, EEG, MEG), transcranial magnetic stimulation, electrophysiology, and neuropsychology. The course will also consider how knowledge about the brain constrains our understanding of the mind.
Fall CLPS0400 S01 25084 MWF 1:00-1:50(06) "To Be Arranged"

CLPS 0450. Brain Damage and the Mind.
Brain damage in humans 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. It 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.
Spr CLPS0450 S01 25085 MWF 11:00-11:50(04) (E. Festa)

CLPS 0500. Perception and Mind.
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.
Fall CLPS0500 S01 16574 MW 8:30-9:50(01) (J. Song)

This course will focus on consciousness related to visual perception, attention, memory, and cognitive control. The learning goal is to understand the neural correlates of consciousness, with an emphasis on visual consciousness. We will examine 1) basic neural mechanisms of perceptual and cognitive processing; 2) philosophical and neuroscientific models of consciousness; 3) the interaction between attention, reward, and memory and visual consciousness; 4) recent advances in research of consciousness by neuroscientific experiments with animals and humans.
Fall CLPS0550 S01 16596 TTh 6:40-8:00PM(15) (T. Watanabe)

CLPS 0600. Developmental Psychology.
Children's behavior and development from infancy through adolescence. Major topics include learning, perception, parent-child attachment, language, intelligence, motivation, emotional development, and peer relations. Major developmental theories, including psychoanalytic, ethological, social learning, and cognitive, are considered as organizers of these phenomena and as a source of testable hypotheses.
Spr CLPS0600 S01 25092 TTh 9:00-10:20(01) (D. Amso)

An examination 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 biology. Major theories of cognitive development are described and evaluated in light of the available psychological data.
Fall CLPS0610 S01 16575 MWF 10:00-10:50(14) (D. Sobel)

CLPS 0700. Social Psychology.
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 historic and current events. WRIT
Fall CLPS0700 S01 16592 TTh 1:00-2:20(10) (O. FeldmanHall)

CLPS 0701. Personality.
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 25093 TTh 9:00-10:20(01) (B. Hayden)

CLPS 0710. The Psychology and Philosophy of Happiness.
The course explores four fundamental questions about happiness: What is happiness—pleasure, life satisfaction, something else? How is happiness achieved—what are the myths and realities about what conduces to happiness? Can happiness be achieved—are we naturally well suited to be happy? Why pursue happiness—is it sufficient, or even necessary, for a good life? The course examines classic contributions from philosophy and psychology, the two disciplines that have studied happiness most extensively. Team-taught by professors from both philosophy and psychology, it invites students to compare and combine both approaches.
Spr CLPS0710 S01 25082 MWF 9:00-9:50(02) (J. Krueger)

CLPS 0800. Language and the Mind.
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 neuropsychological – are emphasized.
Spr CLPS0800 S01 25087 MWF 2:00-2:50(07) (J. Morgan)

CLPS 0900. Statistical Methods.
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 16589 TTh 10:30-11:50(13) (K. Spoehr)
Spr CLPS0900 S01 25086 MWF 11:00-11:50(04) (J. Wright)

CLPS 0950. Introduction to programming.
This course will provide an introduction to Matlab programming for students in the life sciences with no prior programming experience. At the end of this course, students will be able to implement Matlab functions independently to solve many common programming challenges associated with the study of the mind, brain and behavior — from conducting sophisticated data analyses to parsing complex data files to implementing psychophysics experiments. The course is designed for students in psychology, cognitive science, neuroscience and other non-computer science majors interested in learning Matlab. Beyond teaching specific coding skills, this course will support students' development as computational thinkers.
Fall CLPS0950 S01 16591 TTh 1:00-2:20(10) (T. Serre)
CLPS 1130. Psychology of Timing
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.
Fall CLPS1130 S01 16582 TTh 9:00-10:20(02) (R. Church)

CLPS 1150. Memory and the Brain.
This flipped course is for undergraduate and beginning graduate students of psychology, cognitive neuroscience, and biology who are interested in biological research on memory. There are three parts: 1) the genesis of modern research on memory, 2) the hippocampus and beyond, and 3) multiple brain memory systems. The course is designed to be accessible to students in a variety of disciplines, but requires background in psychology, cognitive science, or neuroscience. Class will include online lectures, writing assignments, reading primary research articles, and presenting research articles. Prerequisite: CLPS 0010, CLPS 0020, CLPS 0040, CLPS 0200, or NEUR 0100.
Fall CLPS1150 S01 16595 TTh 2:30-3:50(03) (R. Burwell)

CLPS 1191. Animal Behavior Laboratory.
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.
Spr CLPS1191 S01 25099 M 1:00-1:50 (A. Simmons)

A laboratory course on the prediction, control, and explanation of the behavior of animals in simple environments. Prerequisite: CLPS 0900 (PSYC/COGS 0900).
Spr CLPS1192 S01 25089 TTh 9:00-10:20(01) (R. Church)

CLPS 1250. Human Factors.
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.
Fall CLPS1250 S01 16579 MWF 2:00-2:50(07) (K. Spoehr)

CLPS 1230. Introduction to Phonological Theory.
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 an introduction to articulatory phonetics and phonemic analysis, it focuses on phonological analysis of different languages, and discusses rule-based and constraint-based approaches to phonology. Implications for language learning and language change are discussed. Prerequisite: CLPS 0300.
Spr CLPS1310 S01 25103 TTh 1:00-2:20(08) (U. Cohen Priva)

CLPS 1341. Lexical Semantics.
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 0300 (COGS 0410).
Spr CLPS1341 S01 25094 TTh 10:30-11:50(09) (P. Jacobson)

CLPS 1360. Introduction to Corpus Linguistics.
The study of Linguistics relies on language production data. Language corpora contain various sources of such data, often annotated to include additional information such as syntactic, semantic and phonological properties. Such databases often complement or even replace data sources used in other disciplines. This class aims to train students in the use of some of the tools that are commonly used to access and evaluate data in linguistic corpora. Prerequisite: CLPS 0030. Enrollment limited to 25.
Spr CLPS1360 S01 25259 TTh 2:30-3:50(11) (U. Cohen Priva)

CLPS 1361. Information Theory in Language.
Information theory is used to study the abstract properties of communication systems. Can it improve our ability to understand language? We will examine how the need to communicate predicts several linguistic phenomena. We will discuss information theoretic effects on multiple levels of linguistic analysis, including phonetics, phonology, and syntax. We will contrast concepts such as frequency, predictability, informativity, and functional load, and see how they can each apply to existing linguistic questions.
Fall CLPS1361 S01 17064 TTh 2:30-3:50(03) (U. Cohen Priva)

CLPS 1383A. The Boundary of Semantics and Pragmatics.
This course will examine some phenomena with an eye to the question of how much is actually encoded in the grammar vs. what sorts of facts can be accounted for by pragmatics. We begin by focussing on recent controversies regarding the question concerning the status of so called "Gricean inferences". We will also look at some facts surrounding negation, as well as certain constructions which appear to require an idiosyncratic grammatical account with an eye to explaining the idiosyncracies. Prerequisite: CLPS 1340, 1341 or 1370. Enrollment limited to 40.
Fall CLPS1383A S01 16846 TTh 1:00-2:20(10) (P. Jacobson)

CLPS 1390. Linguistic Field Methods.
A lab/practicum course introducing the methodologies needed to collect, manage, and interpret primary data pertaining to the phonetic, phonological, morphosyntactic, semantic, and pragmatic properties of an understudied language. The course takes a hands-on approach, with students working in groups and individually with a native speaker consultant of an unfamiliar language. Students will learn how to test hypotheses about the language as well as construct grammatical descriptions. In addition, the course will cover a variety of practical, technological, interpersonal, cultural, and ethical issues typically encountered in fieldwork. Pre Requisite: CLPS 1310 and one other 1300-level course in CLPS or instructor permission. WRIT
Spr CLPS1390 S01 25088 MWF 2:00-2:50(07) (S. AnderBois)

CLPS 1400. The Neural Bases of Cognition.
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 addresses related to animal models of human cognition. Students learn 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 a different topic. Topics vary each year, but may include, for example, learning, memory, attention, decision-making, or cognitive impairment associated with neuropathology or aging. Enrollment limited to 20. Not open to first year students.
Spr CLPS1400 S01 25262 M 3:00-5:30(13) (R. Burwell)

CLPS 1478. Translational Models of Neuropsychiatric Disorder.
This course will be an upper level seminar course focused on reading and understanding the primary literature related to the use of animals to model human neuropsychiatric disorders. Throughout the course we will discuss the appropriateness, use, and limitations of animal models for studying human pathology. We will discuss a range of topics building from basic concepts of evolution, development, and genetics to the practice of using animals to study aging and memory function, affective pathology, and developmental disorders. Prerequisites: CLPS0010 or NEUR010; and preferably at least one of the following: CLPS1150, CLPS1480, CLPS0400, CLPS0100, CLPS2100, NEUR1740; NEUR1540.
Fall CLPS1478 S01 16597 W 3:00-5:30(17) (K. Bath)
CLPS 1480B. Cognitive Aging and Dementia.
This seminar examines the cognitive changes associated with normal aging and age-related dementia (e.g., Alzheimer's Disease). Topics covered will include changes in the neurocognitive systems mediating memory, perception, and attention. The course is primarily intended as an advanced seminar for junior and senior concentrators in Psychology, but is also intended for other students interested in aging and the neuropsychology of cognition. Recommended prerequisites: An introductory course in cognitive neuroscience (CLPS 0040 (COGS 0720), CLPS 0400 (PSYC 0470)) or permission of the instructor. Preference will be given to senior concentrators in Psychology and related areas. Enrollment limited to 20. WRIT
Fall CLPS1480B S01 25104 TTh 1:00-2:20(08) (E. Festa)

This course will train students in the practice and use of functional magnetic resonance imaging (fMRI) as a cognitive neuroscience methodology. Topics covered include fMRI 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 0090), or instructor permission. Enrollment limited to 20.
Spr CLPS1490 S01 25107 TTh 9:00-10:20(01) (D. Badre)

CLPS 1492. Computational Cognitive Neuroscience.
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 0040 or CLPS 0200 or NEUR 0010.
Fall CLPS1492 S01 17033 MW 8:30-9:50(01) (M. Frank)

CLPS 1495. Affective Neuroscience.
This course will survey key topics and methods in research on the neuroscience of affect and emotion. It is ideally suited for advanced undergraduates or graduate students who have taken an introductory cognitive neuroscience and/or psychology course. This course will use a variety of behavioral and neuroscientific data to examine the structure of affect/emotion; how affective processes shape cognition and action; how cognition in turn shapes affect; and the nature of variable affective reactions within/across individuals. The course will include in-class presentations, discussions, short lectures, short and long forms of reading responses, and a final research proposal.
Fall CLPS1495 S01 16589 Th 9:30-11:50 (A. Shenhar)

CLPS 1500. Perception and Action.
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 inferential and direct 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 0020 (COGS 0010), CLPS 0500 (COGS/PSYC 0440), or CLPS 0510 (COGS 0110).
Spr CLPS1500 S01 25106 TTh 2:30-3:50(11) (W. Warren)

CLPS 1510. Auditory Perception Laboratory.
This course considers how we sense and comprehend the world through sound. Laboratory sessions will focus on recording and analyzing sounds, creating sound effects, and completing experiments on the psychology of loudness, pitch, and musical timbre. Class discussions will explore topics in music perception, instrumental design, room acoustics, the emotional impact of sounds, and development of hearing sensitivity and hearing loss. The final project for this course is recording and analyzing the soundscape of Brown, with the overall goal of developing an acoustic map of campus. WRIT
Spr CLPS1510 S01 25111 M 3:00-5:30(13) (A. Simmons)

CLPS 1540. Perceiving and Acting in 3D.
How does visual stimulation inform the brain about the three-dimensional structure of the world? What information is important for complex organisms, like humans and other primates, to be able to successfully interact with the surrounding environment? In this course we will examine how different sources of visual information such as stereo, contours, texture gradients, shading, and optic flow contribute to the vivid experience of 3D shape by the human visual system. Moreover, connections will be made to the mechanisms that govern goal directed actions, in order to unveil the commonalities between 3D processing for conscious perception and visuomotor mappings.
Fall CLPS1540 S01 16586 TTh 10:30-11:50(13) (F. Domini)

CLPS 1561. The Nature of Attention.
In daily life, most visual scenes are complex and crowded so that our visual system faces a daunting task of processing an enormous amount of information at any given moment. Thus, attentional mechanisms are necessary to select relevant objects or events and to guide actions. In this course, we will understand behavioral and underlying neural mechanisms involved in visual attention and their interaction with memory, learning, and goal-directed action. We will also study investigations of spared and impaired patterns of attention-based performance following brain injury. Prerequisites: CLPS 0500.
Spr CLPS1561 S01 25081 MW 8:30-9:50(02) (J. Song)

CLPS 1570. Perceptual Learning.
This course will focus on perceptual learning and visual plasticity. The goal of this course is to understand the mechanisms of visual perceptual learning and visual and brain plasticity. Perceptual learning is defined as long-term performance improvement as a result of visual experiences. Enrollment limited to 20. Recommended prerequisites: CLPS 1291, 1500, and 1520.
Spr CLPS1570 S01 25110 M 3:00-5:30(13) (T. Watanabe)

CLPS 1580C. Visualizing Information.
There has been an explosion of interest in how to present information in a visual way rather than as a bunch of boring numbers. Visualizations can be outstanding at conveying information, but there have also been colossal failures. We will explore the good, the bad, and the ugly and harness knowledge of visual perception to understand why some are more successful than others. Someone interested in how to create effective visual displays (posters, infographics) would benefit from this course. Some background in visual perception is recommended such as a CLPS or NEUR course about vision or familiarity with graphic design.
Fall CLPS1580C S01 16587 TTh 2:30-3:50(03) (L. Welch)

CLPS 1580D. Seminar in Spatial Cognition.
How do we perceive, learn, remember, and interact with space? This seminar explores spatial knowledge in humans, animals, and robots, its sensory and neural basis, and how it is used to navigate and think spatially. We will investigate how desert ants find their way home, Nobel prize-winning place and 'grid' cells, what your cognitive map of campus is really like, differences in spatial ability, and the effects of GPS on human wayfinding.
Spr CLPS1580D S01 25263 W 3:00-5:30(10) (W. Warren)
CLPS 1590. Visualizing Vision.
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 25102 TTh 1:00-2:20(08)  (F. Dominis)

CLPS 1620. Developmental Cognitive Neuroscience.
This course will examine fundamental topics in cognitive development from the point of view of the developing brain. Topics of interest will include developing abilities in perception, attention, action, object concepts, memory, learning, planning, language, and social cognition. Typical and atypical brain development will be considered. Prerequisite: One of CLPS 0600 (PSYC 0810), CLPS 0610 (COGS 0630), EDUC 0800, or permission of the instructor. Enrollment limited to 20.
Fall CLPS1620 S01 16598 T 4:00-6:30(09)  (D. Amso)

CLPS 1650. Child Language Acquisition.
All normally developing children acquire language, yet there is little agreement about how this takes place. This class explores the course of language acquisition from birth to babbling and first words to the use of complex syntax, discussing philosophical, theoretical, and methodological approaches to the problem. Includes practical experience analyzing child language data. Prerequisite: CLPS 0030 (COGS 0410) or CLPS 0800 (COGS 0450), or permission of the instructor.
Fall CLPS1650 S01 16594 TTh 2:30-3:50(03)  (J. Morgan)

CLPS 1700. Abnormal Psychology.
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 16583 TTh 9:00-10:20(02)  (B. Hayden)

This course explores questions to the question of what enables some individuals to escape the worst psychological consequences of extreme personal disruptions caused by a range of human-made and natural disasters. It examines personal accounts, pertinent psychological research, theoretical discussions, and the creative works of catastrophe survivors. Enrollment limited to 20.
Spr CLPS1720 S01 25109 TTh 2:30:3:50(11)  (J. Wright)

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 16814 TTh 10:30-11:50(13)  (J. Krueger)

CLPS 1760. The Moral Brain.
How do we learn to cooperate, help others in need, and appropriately respond after being treated unfairly? The human mind strives to resolve the competing pressures of self-interest against the greater good. By drawing upon many disciplines including philosophy, social and affective neuroscience, abnormal psychology, law, and experimental economics, this course covers topics from 18th-century philosophy to modern-day neuroscience. We will examine 1) the philosophical and epistemological foundations of moral thought, 2) the influence of emotion and contextual framing on moral action, 3) the psychopathology of immoral choice, and 4) the underlying cognitive and neurobiological processes that guide moral decision-making.
Spr CLPS1760 S01 25115 W 3:00-5:30(10)  (O. FeldmanHall)

CLPS 1790. Personality and Clinical Assessment.
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 0300) or equivalent. Enrollment limited to 27.
Fall CLPS1790 S01 16590 TTh 1:00-2:20(10)  (J. Wright)

CLPS 1900. Research Methods And Design.
This course is designed to provide CLPS concentrators (psychology/cognitive science/cognitive neuroscience) with a variety of tools needed to conduct research: sources of data, standard designs (e.g., factorial experimental, correlational, longitudinal), research ethics, and best practices of literature review (e.g., meta-analysis). The course will include lectures, laboratory exercises, data collection, statistical analysis, and presentation of findings in written and oral reports. (Previously CLPS 1091)
Fall CLPS1900 S01 16584 T 9:00-10:20(02)  (L. Welch)
Fall CLPS1900 S01 16584 Th 9:00-10:20(02)  (L. Welch)
Spr CLPS1900 S01 25114 T 4:00-5:20  (A. Shenharv)
Spr CLPS1900 S01 25114 Th 4:00-5:20  (A. Shenharv)

This is the capstone course for the Behavioral Decision Sciences (BDS) concentration. It entails a research project that serves as a culmination of each student’s experience within the concentration. Students should choose a research topic compatible with the three electives that they have taken or will take as part of the concentration. They will also need a faculty advisor for the project. The course entails presentation of your ideas and plans, as well as your final results.
Fall CLPS1960 S01 16991 Th 4:00-6:30(04)  (S. Sloman)

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.

This course is the first of a two-course sequence that provides graduate students with background in the core topics and themes in the cognitive and psychological sciences. Topics include sensory systems, perception, action, evolution and development, phonetics and phonology, attention, learning, memory, and executive function. Students are also introduced to a wide range of approaches and levels of analysis that scientists adopt to study these topics. Weekly topics are addressed in lectures and assigned readings. A separate seminar session involves presentation of current papers by students and discussion with faculty. Open to graduate students only.
Fall CLPS2001 S01 16580 TTh 1:00-2:20(10)  (D. Badre)

CLPS 2002. Core Topics in Cognitive and Psychological Sciences II.
An advanced overview of fundamental issues in philosophy of cognitive science, higher-level cognition (concepts, similarity, reasoning, inference, judgment, and decision-making), higher-level language (syntax, semantics, and pragmatics), cognitive development, and social cognition. Domains will be introduced by classic readings and then followed up discussion on modern and contemporary issues in the seminar portion. All topics will be connected throughout by common themes.
Fall CLPS2002 S01 16593 TTh 2:30-3:50(03)  (J. Krueger)
CLPS 2091. Graduate First Year Project Research.
Please check Banner for the correct section number and CRN to use when registering for this course.

CLPS 2092. Graduate First Year Project Research.
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.
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.
No description available. Instructor permission required.

CLPS 2450. Exchange Scholar Program.
Fall CLPS2450 S01 15109 Arranged "To Be Arranged"

CLPS 2906. Experimental Design.
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.

CLPS 2908. Multivariate Statistical Techniques.
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.

CLPS 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.

CLPS 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.

Humanities


HMAN 2400G. It's About Time: Temporalities of Waiting in Theory, Literature, and Film.
This is a seminar on four forms of temporality: suspension, rupture, heterochronia, and coming to an end. These forms will be explored as pertaining to politics, theology, and experience. Agamben’s reading of Paul (The Time That Remains) provides us with a conceptual grid, and “waiting for the Messiah” will be one of the modes of temporalization examined. Kafka’s staging of delay in The Castle, Fritz Lang’s invention of the filmic countdown, and the “checkpoint” in occupied Palestine will constitute major counterpoints. Students will work on collaborative assignments defined collectively and focusing on a specific event, text, or film.

HMAN 2400H. Art History from the South: Circulations, Simulations, Transfigurations.
Addressing history and art history, this collaborative seminar will look at the colonial and postcolonial circuits of movement, transaction and replication that have shaped not just the destinies of art, archaeological and architectural objects but equally the structures of institutions and disciplines that govern these object-worlds. This will involve thinking through critiques of a Eurocentric aesthetics and art history and engaging with practices such as theft, fuguility, replication, mimicry, and free adaptations. While drawing on South Asia for its primary lines of enquiry, the “south” of South Asia in this seminar will serve more broadly as an epistemic pull.

HMAN 2400L. Religion and Internationalism.
Scholarly debates across many disciplines and political upheavals around the globe demonstrate the continued urgency of the struggle between the “secular” and the “religious.” This collaborative seminar traces the intertwined genealogies of the three key terms in this conundrum: religion, secularity, and the international. These terms have been continually subject to theoretical and practical contestation and reconfiguration, from early modern Europe, through the histories of colonialism and anti-colonialism, to post-Cold War turmoil. Readings include judicial decisions from the United States, Europe, and India, as well as authors such as Saba Mahmood, Ashis Nandi, J.Z. Smith, Dipesh Chakrabarty, and Winnifred Sullivan.

HMAN 2400M. Aesthetics and Architecture.
One of the most ancient human practices, answering to the need for shelter, architecture also counts as a fine art in modern times. Is there tension between the functionality of architecture and the disinterested contemplation seen as the hallmark of aesthetic experience? Taught by a philosopher and an architectural historian, the course is interdisciplinary and collaborative. Students work in multi-disciplinary teams to prepare seminar presentations and papers. Case studies will draw on texts and buildings from a diversity of sources, historical periods, and geographical regions.
HUMAN 2400N. Care of the World. Between Politics and Theology.
Arendt’s “care for the world,” inspired by Augustine, resonates with Foucault’s “care for the self.” Both are secularized versions of theological ideas. This seminar explores “care for the world,” at the intersection of politics and theology, in Arendt and Foucault, with texts from the Bible, Mishra, Marx, Fanon, Augustine, Wittgenstein, and Houriya Bouteila. Attending to genre — Arendt’s and Foucault’s essays (on refugees) and journalism (the Eichmann trial and the Iranian revolution) — we will work collaboratively through a series of exemplary figures — the revolutionary, journalist, activist, environmentalist, therapist — to ask what care for the world means in theory and practice.

Comparative Literature
COLT 0510C. The World of Lyric Poetry.
Lyric poetry is the prime mode for conveying emotion in many cultures, from ancient times to the present day. This course will survey the variety of forms and genres from the earliest texts from Greece, Rome, China, and Japan, then the glories of the Renaissance and the Tang Dynasty, then move to the challenges for lyric expression in the modern world. Enrollment limited to 19 first year students. FYS
Fall COLT0510C S01 15565 TTh 9:00-10:20(02) (D. Levy)

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 we will consider the Nights in the context of its various literary, artistic, and cinematic afterlives.
Fall COLT0510K S01 15566 MWF 10:00-10:50(14) (E. Muhanna)

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 Chrétien de Troyes, Quevedo, Prévost, Balzac, Brontë, Twain, Faulkner, Vesaas, Rhys, Satrapi and Foer. Enrollment limited to 19 first year students. FYS
Fall COLT0610D S01 15568 TTh 1:00-2:20(10) (A. Weinstein)

Examines the narrative of detection, beginning with the great dramatic whodunit (and mystery of identity) Oedipus Rex. Literary texts which follow a trail of knowledge, whether to establish a fact (who killed Laius?) or reveal an identity (who is Oedipus?) follow in Sophocles’ footsteps. We read Sophocles’ intellectual children. Readings include: Hamlet, The Murders in the Rue Morgue, The Woman in White, and other classic novels and plays. We also analyse seminal films of the genre, including Laura and Vertigo. Will include the twentieth-century detective story, with particular attention to women writers and the genre of the female private eye.
Spr COLT0610L S01 24346 MWF 11:00-11:50(04) (I. Ierulli)

COLT 0610Q. Before Wikipedia.
How did humans organize knowledge before Wikipedia? This course explores the fascinating history of encyclopedic texts, archives, and databases in various cultural contexts. We consider issues of book history, the classification of knowledge, and the obsession to collect, compile, and document everything knowable and unknowable in both real and fictional encyclopedias. The use of Wikipedia in this course is not only tolerated but required. Students will be responsible for originating, composing, and curating new Wikipedia entries over the course of the semester.
Fall COLT0610Q S01 17134 MWF 2:00-2:50(07) (E. Muhanna)

COLT 0610Y. Women’s Writing in the Arab World.
This course examines Arab women’s writing through the lenses of both Arabic and Western feminist theory and criticism. Beginning with a survey of pre-modern female literary personae in Arabic (the elegist, the mystic, the singing slave), we will then examine major figures in the early modern feminist movement, modernist poetry, autobiography, film, and the novel. No Arabic required; supplemental Arabic section may be offered at the discretion of the professor. Texts by Etel Adnan, Salwa Bakr, Hoda Barakat, Assia Djebar, Nazik al-Malaik’a, Alifa Rifaaat, Hanan al-Shaykh, Miral al-Tahawy, Fadwa Tuqan, Adania Shibli. Films by Mourfida Tiatt, Annemarie Jacir. DPLL
Spr COLT0610Y S01 24344 MWF 1:00-1:50(06) (E. Drumsta)

COLT 0611A. Reading with Wikileaks.
Since its launch in 2006, WikiLeaks has made large amounts of previously undisclosed information openly accessible. How does the exposure, volume and content of such information shape ideas of community and security? How do literary writing and artistic representation engage with the dynamic of censorship and revelation that WikiLeaks puts into play? Drawing on a number of examples, we will consider the implications of redaction, de-classification and “document dumps” for journalism, literary writing and art.
Fall COLT0611A S01 15823 TTh 10:30-11:50(13) (E. Whitfield)

COLT 0710Q. Odysseus in Literature.
Examines the reincarnations of the Homeric figure of Odysseus in contemporary literatures. It approaches the texts historically, culturally and politically. How is the Odysseus myth altered from culture to culture (Greece, Rome, Ireland, the Caribbean), how is it re-adapted in different historical periods, how does Odysseus change as the genre changes (epic, poetry, the novel, film, drama)?
Spr COLT0710Q S01 24347 MWF 2:00-2:50(07) (V. Calochoys)

COLT 0710X. Fan Fiction.
What is imitation (sincerest form of flattery) to literary canons? Vergil’s Aeneid appropriated Aeneas from the Iliad, Joyce’s Ulysses modernized the Odyssey. Admiration as a source of inspiration is a major force in the evolution of fiction. “Fan Fiction” explores intriguing characters in greater detail and new contexts, allowing them new lives in contemporary imagination. This course presents pairs or sets of works that are explicitly linked by the intimate relation of imitation. Classic readings will be paired with their mostly contemporary updates, including Pride and Prejudice/Murder at Pemberley, Heart of Darkness/State of Wonder, and Monkey/Tripmaster Monkey.
Spr COLT0710X S01 25676 TTh 1:00-2:20(08) (D. Levy)

COLT 0810G. Equity Law Literature Philosophy.
Justice, rigorously applied, yields injustice. This paradox haunted Western aspirations toward legal and political justice from antiquity to the Renaissance. It necessitated the formulation of a complementary principle, equity, whose job it was to correct or supplement the law in cases where the strict application of it would lead to unfairness. In England, equity was literary. How is the Odysseus myth altered from culture to culture (Greece, Rome, Ireland, the Caribbean), how is it re-adapted in different historical periods, how does Odysseus change as the genre changes (epic, poetry, the novel, film, drama)?
Spr COLT0810G S01 24351 TTh 9:00-10:20(01) (K. Haynes)

COLT 0810M. Uncanny Tales: Narratives of Repetition and Interruption.
What makes stories creepy? 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 strict application of it would lead to unfairness. In England, equity was literary. How is the Odysseus myth altered from culture to culture (Greece, Rome, Ireland, the Caribbean), how is it re-adapted in different historical periods, how does Odysseus change as the genre changes (epic, poetry, the novel, film, drama)?
Spr COLT0810M S01 24350 MWF 12:00-12:50(05) (S. Bernstein)
COLT 0812L. Stigma.
People must navigate through life with damaged or spoiled identities, some much more so than others. To understand this more deeply, we will read classic works of social science (Du Bois, Arendt, Goffman, Cobb and Sennett) and major fiction (Hawthorne, Hardy, Hughes, Faulkner, Roth).
Fall COLT0812L S01 15824 TTh 9:00-10:20(02) (K. Haynes)

COLT 0812M. Hamlet Post-Hamlet (ENGL 0150Z).
Interested students must register for ENGL 0150Z.
Fall COLT0812M S01 17176 Arranged "To Be Arranged"

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, formalism and ideological criticism (questions of race, gender, sexuality, postcolonialism). Primarily for advanced undergraduates. Lectures, discussions; several short papers.
Fall COLT1210 S01 15570 MWF 11:00-11:50(16) (S. Bernstein)

COLT 1310J. The Arab Renaissance.
Explores the literature of the 19th-century “nahda,” or Arab renaissance. Topics include the birth of the Arabic novel, encounters between Europe and the Middle East, neoclassicism, and the rise of Islamic modernism. We will read selections from the works of Shidyq, Tahwai, Zaidan, Shawqi, and Bustani, alongside historiographical and theoretical texts. At least three years of Arabic required.
Fall COLT1310J S01 24430 M 3:00-5:30(13) (E. Munhana)

COLT 1410S. Classical Tragedy.
This course will read the great Greek tragedies of Aeschylus, Sophocles, and Euripides, and some Senecan tragedy. We will then read Renaissance and later tragedies that use the classical world as a setting, such as Antony and Cleopatra, Julius Caesar, and tragedies that rewrite classical themes, including O'Neill's Mourning Becomes Electra.
Fall COLT1410S S01 15580 MWF 9:00-9:50(01) (M. Ierulli)

COLT 1420O. Proust, Joyce and Faulkner.
A reading of three major Modernist authors, with a focus on the following issues: role of the artist, representation of consciousness, weight of the past. Texts include substantial portions of Proust's Recherche, Joyce's Portrait and Ulysses, Faulkner's Sound and the Fury, Light in August and Absalom, Absalom! Prior background in these authors desirable, especially Ulysses. Senior Seminar. Reserved for Seniors. Preference given to concentrators in Comparative Literature, English, Literary Arts, Modern Culture and Media, as well as highly qualified seniors in other concentrations. Instructor's approval required. Enrollment limited to 20.
Fall COLT1420O S01 15571 TTh 10:30-11:50(13) (A. Weinstein)

COLT 1422J. Detective Fiction as World Literature.
Though often marginalized as unserious or lowly "genre fiction," the detective plot has interested and influenced literary figures ranging from Poe and Borges to Todorov and Robbe-Grillet. In this course, we examine both the origins and the afterlives of the detective plot in fiction from around the world. We will focus in particular on the figure of the detective as reader and the commentaries detective fiction offers on reading itself. After beginning with some "classics" by Poe, Conan Doyle, Chesterton, and Chandler, we move on to examine select novels and stories from Europe, the Middle East, the Americas, and Africa.
Fall COLT1422J S01 15825 MWF 12:00-12:50(12) (E. Drumsta)

COLT 1430L. Poetry of Europe: Montale, Celan, Hill.
The fifty years between the Second World War and the formation of the European Union was a period in which the meaning of "Europe" was placed under great strain. The class will examine the strains and debates about Europe within the lyric poetry of several literary traditions. It will take the form of close historical, formal, and critical readings of three books of poems in their entirety: Montale's The Storm and Others (1956), Celan's No-One's Rose (1963), and Hill's Canaan (1997). Enrollment limited to 25.
Spr COLT1430L S01 24368 Th 4:00-6:30(17) (K. Haynes)

COLT 1430L. Voices of Romanticism.
Readings of lyric poetry in the European Romantic tradition. Focus on problems of lyric subjectivity and representation, and the rhetoric of "voice." Emphasis on formal features of poetry. The course will be based on close reading and frequent writing assignments. Readings from Wordsworth, Shelley, Keats, Goethe, Novalis, Hugo, Nerval, Lamartine, Baudelaire and others. Knowledge of French or German required, or by permission.
Fall COLT1430L S01 15572 MWF 1:00-1:50(06) (S. Bernstein)

COLT 1440R. Palestinian Literature.
This course introduces students to the history and literature of Palestine through poetry, short stories, novellas, and films in Arabic. We'll review the major events of the twentieth century—the Balfour Declaration, the 1936 uprisings, the Nakba, the June War, the Intifada—by reading texts from both the "interior" (Israel and the Occupied Palestinian Territories) and the "exterior" (other countries in the Middle East and the West). We'll examine such topics as exile and displacement, resistance, and everyday life under siege and occupation. All readings in Arabic, at least 3 years Arabic language study required for enrollment.
Fall COLT1440R S01 15826 W 3:00-5:30(17) (E. Drumsta)

COLT 1710D. Exercises in Literary Translation.
Exercises and investigations in the history, theory, and practice of literary translation. Students pursue individual projects for translation workshops. Common exercises draw on Shakespeare translation, from classic translations in Europe to unique examples like Nyerere's Swahili Caesar and current projects like Shakespeare in Modern English or The Chinese Shakespeare. Prerequisite: one foreign-language course in literature at 1000-level (or equivalent).
Spr COLT1710D S01 25677 TTh 10:30-11:50(09) (S. Foley)

COLT 1810G. Fiction and History.
How the historical fiction that has flourished over the past four decades challenges the notions of objectivity and totalization, while providing alternative viewpoints for the reconstruction and reinterpretation of the past. Authors considered include Grass, Doctorow, Delillo, Garcia-Márquez, Allende, Dantec and Gordiner. Theoretical texts by White, LaCapra, Benjamin, Ricoeur, and Chartier. Films such as The Official Story and Europa, Europa will be viewed and incorporated into the discussions. Prerequisite: two previous courses in literature. Enrollment limited to 25. Instructor permission required.
Fall COLT1810G S01 15574 M 3:00-5:30(05) (L. Valente)

COLT 1810N. Freud: Writer and Reader.
A broad survey of Freud's writings, with particular emphasis on psychoanalysis' relevance to literary theory and cultural analysis. Readings include Freud's major works, as well as secondary sources focused on applications to literary studies.
Fall COLT1810N S01 15575 Th 4:00-6:30(04) (S. Stewart-Steinberg)

In East Asian Buddhist culture, the mirror is a symbol of the mind in both its intellectual and emotional aspects. These masterworks detail the lives and loves of Prince Genji, cynosure of the medieval Japanese court and Jia Baoyu, the last hope of an influential Chinese clan during the reign of Manchus. We examine both works as well as the sources of Genji and the Chinese Shakespeare. Prerequisites: COLT 0710, RELS 0040 (0088) or 0100 (0006), or permission of the instructor.
Fall COLT1810X S01 15573 TTh 1:00-2:20(10) (D. Levy)
COLT 1812A. Literatures of Immigration
Why do people migrate? How do literary genres, including poetry, fiction, autobiography and memoir, characterize immigrant experiences? How is the experience of "coming from somewhere else" similar and different for each subsequent generation of immigrants? How does literature indicate the impacts of migration on the culture, politics and economics of the countries of immigration and emigration? How do literatures of immigration imagine the past, present and future of networks and communities of immigrants? Focusing on twentieth-century literary texts and the socio-historical context of mass migration, the first half of the course examines immigration literature in the U.S., the second half of the course explores literatures of immigration beyond the U.S., and the course concludes with an inquiry into immigration in our presently globalizing age.
Fall COLT1812A S01 15576 T 4:00-6:30(09) (V. Calotychos)

COLT 1813I. The Colonial and the Postcolonial Marvelous.
A celebration and critique of the marvelous--as the strange, wondrous, magical, or unreal--as it has been wielded in Spanish American and related literatures (French Caribbean, Brazilian). We follow the marvelous from European exoticizing of the New World during the colonial period to its postcolonial incarnations in "magical realism" and beyond. We attend particularly to the political, ideological, social, and commercial implications of the marvelous in writers including Carpenter, Chamoiseau, Columbus, Esquivel, Sor Juana Inés de la Cruz, and García Márquez. Readings in English, though you may read texts in the original French, Spanish, or Portuguese.
Fall COLT1813I S01 15577 TTh 2:30-3:50(03) (S. Merrim)

COLT 1813O. Adventures of the Avant-Garde.
In the early years of the twentieth century, a series of artistic movements rippled across the Western hemisphere, exploding conceptions of art and culture while reconfiguring international relations. Explores those movements, from their predecessors (Baudelaire, Rimbaud, Mallarmé), through overlapping –isms (Cubism, Futurism, Constructivism, Vorticism, Expressionism, Dada, Surrealism), to avatars in the Americas. In keeping with the avant-garde's cross-pollinating spirit, we study texts from a variety of traditions, forms, and genres: from poetry through prose to manifestoes, from painting and photography to film, music, and dance, touching on questions of translation and translatability between languages, cultures, and art-forms. Enrollment limited to 25.
Fall COLT1813O S01 15672 MWF 11:00-11:50(16) (M. Clayton)

COLT 1814S. The Balkans, Europe's Other?: Literature, Film, History.
Introduces the modern Balkans through a critical examination of literary and visual, historiographic and political, narratives. The course considers the contentious over a shared historical past and interreligious geographic space through common and divergent master narratives, myths, myths, and recurring discourses. It also examines the region's aesthetic, religious, and political relation to Europe. Do the Balkans constitute a traumatized, " balkanized," self-colonized, abject modernity at Europe's edges, its inner alterity? Given the acclaim achieved by Balkan filmmakers since 1989, the course also asks how Balkan artists, caught in-between nationalism, Orientalism, Eurocentrism and globalization, assert agency and subjectivity and captivate our imaginations.
Fall COLT1814S S01 24366 T 4:00-6:30(16) (V. Calotychos)
Spr COLT1814T S01 25401 W 3:00-5:30(10) (E. Drumsta)

COLT 1815C. War, Language and the Arts.
War is all around us: in the many conflicts being waged around the world, but also in the ways we are addressed by political leaders and engage with one another. This course addresses the relationship between war and language, exploring war as conflict, metaphor, and art. Drawing primarily on Latin American and U.S. contexts - Cuba's "War on Imperialism," Argentina's "Dirty War," Mexico's "narco-wars" and the "War on Terror" - we will ask what is at stake in waging war on a personal, national and global stage, and what alternatives we might choose.
Spr COLT1815C S01 24431 MWF 10:00-10:50(03) (E. Whitfield)

COLT 1815D. Shipwrecks, Castaways and Survivors: the Crusoe Myth in Literature.
The story of shipwreck, survival and self-sufficiency told in Defoe's Robinson Crusoe continues to hold a powerful place in our imaginations. This course will study the construction of the myth of survival on a desert island and explore some of its most interesting adaptations, including feminist retellings as well as contemporary responses by Derryl Walcott, J.M. Coetzee and Patrick Chamoiseau, among others. Issues of colonialism, race, slavery and gender will be studied. Critical readings to include: Rousseau, Marx, Deleuze, and Derrida.
Fall COLT1815D S01 15827 TTh 2:30-5:50(03) (O. Mostefai)

COLT 1815E. Literature of Empires (CLAS 1120Z).
Interested students must register for CLAS 1120Z.
Spr COLT1815E S01 25727 Arranged "To Be Arranged"

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.
Fall COLT2450 S01 15112 Arranged "To Be Arranged"
Spr COLT2450 S01 24060 Arranged "To Be Arranged"

COLT 2821S. Historical Form.
This course will explore formal approaches to historical writing. We will focus on the work of Hayden White, but also compare literary analyses of-- and experiments with-- historical narrative outside the modern European tradition. For their final projects, students can work on a historical work or genre of their choice.
Fall COLT2821S S01 15828 W 3:00-5:30(17) (T. Chin)

COLT 2821T. Gift and Debt.
By alternating literary and philosophical approaches to gift and debt, we will try to gain a historical perspective on what Maurizio Lazzarato has called "the making of the indebted man" in our contemporary neoliberal era. Important landmarks for our approach will include: Shakespeare's The Merchant of Venice, Bataille's The Accursed Share, Goethe's Faust I and Faust II, and Derrida's The Gift of Time.
Spr COLT2821T S01 24433 W 3:00-5:30(10) (P. Szendy)

COLT 2821U. Borders, Exiles, Language.
This graduate seminar will examine literatures and concepts of borders, border crossings, and exile, with particular attention paid to ways in which linguistic, literary, and political questions intertwine. The concepts of refuge, sanctuary, hospitality, and statelessness will be investigated. Texts to be read include the Bible, classical texts on exile, as well as modern authors beginning with the Enlightenment and the Revolutionary era (Rousseau, Goethe). Critical readings by Hannah Arendt, Jacques Derrida, Giorgio Agamben and others.
Spr COLT2821U S01 24432 F 3:00-5:30(15) (O. Mostefai)
COLT 2821V. It’s About Time: Temporalities of Waiting in Theory, Literature, and Film (HMAN 2400G).
Interested students must register for HMAN 2400G.
Fall COLT2821V S01 16820 Arranged "To Be Arranged"

COLT 2830I. Histories of the Early Modern Body.
This seminar considers the production of knowledge about the body in the early modern period. The institution of science and how the emerging "science" of the body was visualized; discourses of the erotic, the scientific and the religious; the body in varied cultural performances including the blason, devotional texts, erotica, drama etc. Texts include theoretical work on gender and sexuality. Open to graduate students only.
Fall COLT2830I S01 15578 M 3:00-5:30(05) (K. Newman)

COLT 2830P. The History of Wonder in Colonial Spanish American Lettres (HISP 2350H).
Interested students must register for HISP 2350H.
Fall COLT2830P S01 17140 Arranged "To Be Arranged"

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 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.
Fall COLT2990 S01 15113 Arranged "To Be Arranged"
Spr COLT2990 S01 24061 Arranged "To Be Arranged"

Computer Science

CSCI 0020. The Digital World.
Removes the mystery surrounding computers and the ever-growing digital world. Introduces a range of topics and many aspects of multimedia, along with explanations of the underlying digital technology and its relevance to our society. Other topics include artificial intelligence, IT security, ethics and the 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, Excel 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.
Fall CSCI0020 S01 16054 TTh 9:00-10:20(02) (D. Stanford)

CSCI 0040. Introduction to Scientific Computing and Problem Solving.
CSCI0040 provides an introduction to using computers to solve STEM (Science, Technology, Engineering and Mathematics) data analysis, visualization and simulation problems from engineering, neuroscience, biology, mathematics and finance.
Students will access and analyze a number of "real world" data sets while becoming fluent MATLAB programmers. Other tools utilized may include Excel, Wolframalpha and Python.
By course end, students should be able to use MATLAB to solve a large variety of scientific data analysis, visualization and simulation problems.
No prior programming experience is required (MATLAB is easy and fun to use).
Spr CSCI0040 S01 24452 TTh 2:30-3:50(11) (D. Potter)

CSCI 0130. User Interfaces and User Experience.
Topics include understanding when to use different interfaces, modeling and representing user interaction, principles of user experience design, eliciting requirements and feedback from users, methods for designing and prototyping interfaces, and user interface evaluation. Students interested in learning the process behind building a user interface and gaining hands-on experience designing a user interface should take this course. Programming experience is unnecessary. There will be assignments, readings, and design labs. CSCI 0130 is the same lecture, labs, and readings as CSCI 1300 but half of the assignments will be different (CSCI 1300 will have assignments with computer science prerequisites).
Website: http://cs.brown.edu/courses/csci1300/
Fall CSCI0130 S01 16056 TTh 6:40-8:00PM(15) (J. Huang)

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, and culminating in a significant final project, helps provide a serious introduction to the field intended for both potential concentrators and those who may take only a single course. No prerequisites, no prior knowledge of programming required.
Fall CSCI0150 S01 16058 TTh 2:30-3:50(03) (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 24453 TTh 1:00-2:20(08) (S. Kamara)

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 16063 MW 10:00-10:50(14) (P. Klein)

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 or CSCI 0190.
Spr CSCI0180 S01 24454 MW 11:00-11:50(04) "To Be Arranged"

CSCI 0190. Accelerated Introduction to Computer Science.
A one-semester introduction to CS covering programming integrated with core data structures, algorithms, and analysis techniques, similar to the two-course introductory sequences (CSCI 0150 - CSCI 0160 and CSCI 0170 - CSCI 0180). Students wishing to take CSCI 0190 must pass a online placement exam. Though the exam is most appropriate for students who have had some prior programming experience, all are welcome to try learning the material and doing the exam. Exam information can be found here: http://cs.brown.edu/courses/cs019/2017/. The exam must be taken before summer ends; students who have not passed the exam won't be allowed to register.
Fall CSCI0190 S01 16065 MW 10:00-10:50(14) (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 algebras, logic, set theory, elements of algebraic structures, graph theory, combinatorics, and probability. No prerequisites.
Spr CSCI0220 S01 24455 MWF 1:00-1:50(06) (C. Kilvans)

CSCI 0320. Introduction to Software Engineering.
Techniques for designing, building, and maintaining large, scalable, and reusable systems. We will cover advanced programming techniques using Java and Javascript. Course assignments will familiarize students with software testing, relational databases, concurrency techniques such as threads, and software engineering tools like git, profilers, and debuggers. A major component of the course will be a group software project of your own design.
Prerequisite: CSCI 0160, CSCI 0180 or CSCI 0190; CSCI 0220 is recommended.
Spr CSCI0320 S01 24456 TTh 1:00-2:20(08) '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 Unix systems, as well as to multi-threaded programming with POSIX threads. Students will be introduced to the functions of operating systems.
Prerequisite: CSCI 0150, 0180, or 0190.
Fall CSCI0330 S01 16066 MWF 2:00-2:50(07) (T. Doeppner)

CSCI 1010. Theory 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 1450.
Fall CSCI1010 S01 16069 TTh 10:30-11:50(10) (A. Lysyanskaya)

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. Some knowledge of basic linear algebra is helpful but not required. Strong object-oriented programming ability (e.g., in C++, Java or Python) is required.
Fall CSCI1230 S01 16070 TTh 10:30-11:50(13) (A. van Dam)

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. Prerequisites: CSCI 0160, CSCI 0180, or CSCI 0190. One of CSCI 0330 or CSCI 0320 is strongly recommended.
Fall CSCI1270 S01 16073 MW 3:00-4:20(17) (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 24457 WF 12:00-1:50 (B. Meier)

CSCI 1300. User Interfaces and User Experience.
Topics include understanding when to use different interfaces, modeling and representing user interaction, principles of user experience design, eliciting requirements and feedback from users, methods for designing and prototyping interfaces, and user interface evaluation. Students interested in learning the process behind building a user interface and gaining hands-on experience designing a user interface should take this course. There will be assignments, readings, and design labs. CSCI 1300 and CS 0130 share the same lecture, labs, and readings but half of the assignments will be different (CSCI 1300 will have assignments with computer science prerequisites). Website: http://cs.brown.edu/courses/csci1300/
Fall CSCI1300 S01 16075 TTh 6:40-8:00PM(15) (J. Huang)

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 24458 MWF 10:00-10:50(03) (S. Reiss)

CSCI 1380. Distributed Computer Systems.
Explores the fundamental principles and practice underlying networked information systems, first we cover basic distributed computing mechanisms (e.g., naming, replication, security, etc.) and enabling middleware technologies. We then discuss how these mechanisms and technologies fit together to realize distributed databases and file systems, web-based and mobile information systems. Prerequisite: CSCI 0320 or CSCI 0330. This course is fit if you'd like to be added to the waitlist please fill out this survey https://goo.gl/forms/cqjLYsjW6ka2B5O2
Spr CSCI1380 S01 24459 TTh 10:30-11:50(09) (T. Benson)

CSCI 1410. Artificial Intelligence.
Practical introduction to designing intelligent systems. Topics include search and optimization, uncertainty, learning, and decision making. Application areas include natural language processing, machine vision, machine learning, and robotics. Prerequisites: CSCI 0160, CSCI 0180 or CSCI 0190; and either CSCI 0220 or one of CSCI 0450 or CSCI 1450.
Fall CSCI1410 S01 16076 TTh 1:00-2:20(10) (G. Konidaris)

We explore the theory and practice of statistical machine learning, focusing on computational methods for supervised and unsupervised data analysis. Specific topics include Bayesian and maximum likelihood parameter estimation, regularization and sparse-promoting priors, kernel methods, the expectation maximization algorithm, and models for data with temporal or hierarchical structure. Applications to regression, categorization, clustering, and dimensionality reduction problems are illustrated by examples from vision, language, bioinformatics, and information retrieval.
Spr CSCI1420 S01 24460 TTh 2:30-3:50(11) (M. Littman)

Probability and statistics have become indispensable tools in computer science. Probabilistic methods and statistical reasoning play major roles 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 Bayesian and frequentist statistical inference. Basic programming experience required for homework assignments. Pre-Requisites: Two semesters of college-level calculus, at the level of Math 0090 and Math 0100.
Fall CSCI1450 S01 16066 TTh 2:30-3:50(03) (E. Uvald)
CSCI 1450. Software Security and Exploitation.
Covers software exploitation techniques and state-of-the-art mechanisms for protecting (vulnerable) software. It begins with a survey of prevalent software defects, typically found in applications written in memory unsafe languages, like C/C++, and proceeds with studying traditional and modern exploitation techniques, ranging from classical code-injection and code-reuse up to the newest goodies (just-in-time code reuse). For the most part, it focuses on defenses against certain vulnerability classes and exploitation methods. Students will learn about the boundaries and effectiveness of virtualization, stack and heap protections, and address space randomization, and analyze advanced exploitation techniques and countermeasures.

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 0330.

CSCI 1670. 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.

CSCI 1680. Software Security and Exploitation.
Covers software exploitation techniques and state-of-the-art mechanisms for protecting (vulnerable) software. It begins with a survey of prevalent software defects, typically found in applications written in memory unsafe languages, like C/C++, and proceeds with studying traditional and modern exploitation techniques, ranging from classical code-injection and code-reuse up to the newest goodies (just-in-time code reuse). For the most part, it focuses on defenses against certain vulnerability classes and exploitation methods. Students will learn about the boundaries and effectiveness of virtualization, stack and heap protections, and address space randomization, and analyze advanced exploitation techniques and countermeasures.

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.

CSCI 1700. 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. Prerequisites: CSCI 0330

CSCI 1730. Design and Implementation of Programming Languages.
This course introduces algorithms for sequence comparison and alignment; molecular evolution and phylogenetics; DNA/RNA sequencing and assembly; recognition of genes and regulatory elements; and RNA and protein structure. The course demonstrates how to model biological problems in terms of computer science.

CSCI 1750. Design and Analysis of Algorithms.
Randomization and probabilistic techniques play an important role in modern computer science, with applications ranging from combinatorial optimization and machine learning to communications networks and secure protocols. This course introduces the most fundamental probabilistic techniques used in computer science applications, in particular in randomized algorithms, probabilistic analysis of algorithms and machine learning.

CSCI 1760. 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. Prerequisites: CSCI 0330

CSCI 1810. Computational Molecular Biology.
High-throughput experimental approaches now allow molecular biologists to make large-scale measurements of DNA, RNA, and protein, the three fundamental molecules of the cell. The resulting datasets are often too large for manual analysis and demand computational techniques. This course introduces algorithms for sequence comparison and alignment; molecular evolution and phylogenetics; DNA/RNA sequencing and assembly; recognition of genes and regulatory elements; and RNA and protein structure. The course demonstrates how to model biological problems in terms of computer science.

The course will focus on proving properties about systems and programs. We will study the distinction between programs and specifications, and check for whether the former obey the latter. We will work with tools that can verify properties of programs, and we will see how the capabilities for mass digital surveillance continue to advance rapidly. This course will put current controversies in historical context and explore possible reforms. WRIT

Who is the Big Brother that we most fear? Is it the NSA -- or is it Google and Facebook? Rapidly changing social mores and the growing problem of cybersecurity have all contributed to a sense that privacy is dead. While the laws that protect privacy and civil liberties are stuck in the analog age, the capabilities for mass digital surveillance continue to advance rapidly. This course will put current controversies in historical context and explore possible reforms. WRIT
CSCI 1972. Topics in 3D Game Engine Development. Covers core techniques in 3D game development with an emphasis on engine architecture. Students independently develop their own engines using C++, OpenGL, and the Qt framework, then work in groups to create a polished game. Topics include: spatial subdivision, player representation, collision detection and response, game networking, GPUs, and OpenGL. Prerequisite: CSCI 1230 and one of the following CSCI 0320, CSCI 0330, CSCI 1950N, OR CSCI 1971.

CSCI 1973. Independent Study: Introduction to Computer Systems. Ideally drawn from students' own research interests. This is a graduate-classical research papers, and a research project related to the topic but course has two components: reading and discussion of current and problems, concepts, and techniques underlying these systems. The Internet-scale distributed systems, cloud computing, as well as the core systems. Specific topics may include wireless and sensor networking, Explores current research topics in networking, distributed and operating CSCI 2890. Comprehensive Examination Preparation and advanced undergraduates with Computational or Life Science Folding and Immunogenomics. This course is open to graduate students problems and solutions in three areas: Disease Associations, Protein bioinformatics impact medical research. We will present challenging of Medical Bioinformatics where genomics, computational biology and Devoted to computational problems and methods in the emerging field How to do research on using computer graphics, visualization, and interaction applied to scientific problems. 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. For 2014, immersive CAVE applications will be a focus, but other interaction or visualization projects are possible. Prerequisites: all: programming experience; CS students: graphics experience; others: problem ideas. Instructor permission required.

Fall CSCI2370 S01 16688 TTh 10:30-11:50(13) (D. Laclaw)

CSCI 2450. Exchange Scholar Program. Fall CSCI2450 S01 15114 Arranged "To Be Arranged"

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 Science backgrounds. Prior background in Biology is not required.

Spr CSCI2820 S01 24466 TTh 2:30-3:50(11) "To Be Arranged"

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.

Fall CSCI2890 S01 15115 Arranged "To Be Arranged"
Spr CSCI2890 S01 24062 Arranged "To Be Arranged"

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, undergrads can join with the consent of the instructor.

Spr CSCI2950U S01 24470 TTh 2:30-3:50(11) (R. Fonseca)

CSCI 2950V. Topics in Applied Cryptography. This course surveys recent developments in applied cryptography. Research in this field is motivated by privacy and security issues that arise in practice from areas like cloud computing, databases, surveillance and finance. Topics will vary each year. Pre requisites: CSCI 1660 required, CSCI 1510 strongly recommended.

Fall CSCI2950V S01 16091 TTh 1:00-2:20(13) (S. Kamara)

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. Prerequisite: a graduate-level computer science course and some exposure to reinforcement learning from a previous computer-science class or seminar.

Fall CSCI2951F S01 16092 TTh 2:30-3:50(03) (M. Littman)

CSCI 2951I. Computer Vision for Graphics and Interaction. Modern visual computing often relies on computer vision: to create, manipulate, and organize real-world captured imagery, and to interact with computers in natural ways through cameras. In this seminar course, we will discover the state of the art algorithmic contributions in computer vision which make these new applications possible. Each week, we will read pairs of complementary papers, present them, and discuss their contributions, impact, and limitations. Beyond computer vision, this course will help students learn how to quickly interpret and assess academic papers, and how to give effective and engaging presentations. Students who wish to enroll should fill out this survey http://bit.ly/2YPOTA. Selected students will receive an override code before the end of shopping period.

Spr CSCI2951I S01 24471 T 4:00-6:30(16) (J. Tompkin)

CSCI 2951U. Topics in Software Security. This course investigates the state-of-the-art in software exploitation and defense. Specifically, the course is structured as a seminar where students present research papers to their peers. We will begin with a summary of prevalent software defects, typically found in applications written in memory unsafe languages, and proceed to surveying what we are up against: traditional and modern exploitation techniques, ranging from classical code injection and code reuse up to the newest goodides (JIT-ROP, Blind ROP). For the bulk part, we will focus on the latest advances in protection mechanisms, mitigation techniques, and tools against modern vulnerability classes and exploitation methods.

Spr CSCI2951U S01 24472 M 3:00-5:30(13) (V. Kemerlis)

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.

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.

Fall CSCI2990 S01 15116 Arranged "To Be Arranged"
Spr CSCI2990 S01 24063 Arranged "To Be Arranged"

CSCI XLIST. Courses of Interest to Concentrators in Computer Science.

Development Studies

DEVL 1990. Senior Thesis Preparation. 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 17168 Arranged (N. Chorev)

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.  
Fall DEVL2990 S01 15117 Arranged "To Be Arranged"  
Spr DEVL2990 S01 24064 Arranged "To Be Arranged"

DEVL XLIST. Courses of Interest to Concentrators in Development Studies.

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 15611 MWF 9:00-9:50(01) (W. Chen)  
Fall CHIN0100 S01 15611 TTh 9:00-10:20(01) (W. Chen)  
Fall CHIN0100 S02 15612 MWF 10:00-10:50(14) (W. Chen)  
Fall CHIN0100 S02 15612 TTh 10:30-11:50(14) (W. Chen)  
Fall CHIN0100 S03 15613 MWF 1:00-1:50(06) (W. Chen)  
Fall CHIN0100 S03 15613 TTh 1:00-2:20(06) (W. Chen)  
Fall CHIN0100 S04 15614 MWF 2:00-2:50(07) (W. Chen)  
Fall CHIN0100 S04 15614 TTh 2:30-3:50(07) (W. Chen)

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 24307 MWF 9:00-9:50(02) (W. Chen)  
Spr CHIN0200 S01 24307 TTh 9:00-10:20(02) (W. Chen)  
Spr CHIN0200 S02 24308 MWF 10:00-10:50(03) (W. Chen)  
Spr CHIN0200 S02 24308 TTh 10:30-11:50(03) (W. Chen)  
Spr CHIN0200 S03 24309 MWF 1:00-1:50(06) (W. Chen)  
Spr CHIN0200 S03 24309 TTh 1:00-2:20(06) (W. Chen)  
Spr CHIN0200 S04 24310 MWF 2:00-2:50(07) (W. Chen)  
Spr CHIN0200 S04 24310 TTh 2:30-3:50(07) (W. Chen)

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 15615 MTWThF 12:00-12:50 (J. Huang Hsieh)  
Fall CHIN0300 S02 15616 MWF 1:00-1:50(06) (J. Huang Hsieh)  
Fall CHIN0300 S02 15616 TTh 1:00-2:20(06) (J. Huang Hsieh)  
Fall CHIN0300 S03 15617 MWF 2:00-2:50(07) (J. Huang Hsieh)  
Fall CHIN0300 S03 15617 TTh 2:30-3:50(07) (J. Huang Hsieh)

This course is designed to enhance listening, speaking, reading, and writing skills for Chinese heritage students who have some prior knowledge of Chinese. Five classroom meetings weekly. Placement interview required.  
Fall CHIN0350 S01 15624 MTWThF 12:00-12:50 "To Be Arranged"

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 24313 MWF 12:00-12:50(05) (J. Huang Hsieh)  
Spr CHIN0400 S01 24313 TTh 12:00-12:50(05) (J. Huang Hsieh)  
Spr CHIN0400 S02 24312 MWF 1:00-1:50(06) (J. Huang Hsieh)  
Spr CHIN0400 S02 24312 TTh 1:00-2:20(06) (J. Huang Hsieh)  
Spr CHIN0400 S03 24313 MWF 2:00-2:50(07) (J. Huang Hsieh)  
Spr CHIN0400 S03 24313 TTh 2:30-3:50(07) (J. Huang Hsieh)

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 15618 MWF 9:00-9:50(01) (Y. Wang)  
Fall CHIN0500 S01 15618 MWF 9:00-10:20(01) (Y. Wang)  
Fall CHIN0500 S02 15619 TTh 10:30-11:50(16) (Y. Wang)  
Fall CHIN0500 S02 15619 MWF 11:00-11:50(16) (Y. Wang)  
Fall CHIN0500 S03 15620 MTWThF 12:00-12:50 (Y. Wang)

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 24314 MWF 9:00-9:50(02) (Y. Wang)  
Spr CHIN0600 S01 24314 MWF 9:00-10:20(02) (Y. Wang)  
Spr CHIN0600 S02 24315 TTh 10:30-11:50(04) (Y. Wang)  
Spr CHIN0600 S02 24315 MWF 10:00-11:50(04) (Y. Wang)  
Spr CHIN0600 S03 24316 MWF 12:00-12:50(05) (Y. Wang)  
Spr CHIN0600 S03 24316 MWF 12:00-12:50(05) (Y. Wang)

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 language 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 conducted when necessary. Prerequisite: CHIN 0600 or permission of instructor.  
Fall CHIN0700 S01 15621 MWF 10:00-10:50(14) "To Be Arranged"

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 25403 MWF 10:00-10:50(03) "To Be Arranged"
CHIN 0910C. Introduction to Modern Chinese Prose.
Students will pursue their ability to appreciate and use various Chinese writing styles by reading and analyzing modern Chinese prose classics. Classes include lecture, discussion and group or individual presentations. By the end of the semester, students will be familiar with the development of modern Chinese prose, understand the language and meaning of each text, be comfortable with different writing styles and techniques, and have a deeper understanding of Chinese thought, society, and culture via the writers and their masterpieces. Conducted in Mandarin Chinese; designed for students with advanced language skills. Prerequisites: CHIN 0800 or the equivalent.

Fall CHIN0910C S01 15622 TTh 10:30-11:50(13) ‘To Be Arranged’
Spr CHIN0910C S01 25404 TTh 2:30-3:50(11) ‘To Be Arranged’

CHIN 0920B. Classical Chinese.
This course aims to build on basic knowledge of reading Classical Chinese grammar, syntax, and vocabulary. The class will use modern Chinese (Mandarin) to discuss classical texts. Readings are original works of prose and poetry dating from the 2nd to 12th century CE. Prerequisite: CHIN 0910B. Instructor permission required.

Spr CHIN0920B S01 25402 TTh 10:30-11:50(09) (W. Chen)

CHIN 0920G. Chinese Language in the Big Screen.
This course is designed for advanced Chinese language students who have completed CHIN 0600 or equivalent. You will gain language and culture proficiency through studying different genres of movies that reflect Chinese history, social issues and Chinese people’s values. The primary objective of this course is to further develop your language proficiency in meaningful and entertaining contexts. By conducting research into the films, creating video summary, and sharing your work with your fellow students, you will build up your interpretive and presentational skills. In place of a final written exam, you will be asked to produce a mini-film.

Fall CHIN0920G S01 16996 TTh 2:30-3:50(03) (L. Hu)

CHIN 1010. Stories from the Chinese Empire: Scholars, Demons and Swindlers.
This bilingual course introduces the culture and society of late imperial China by reading short stories, novels, prose essays between 1368 and 1911. To maintain students’ language skills, the lecture is primary in mandarin aided by English explanation. Students can choose to complete the assignments in either English or Chinese. The course explores the interwoven spectacular fantasy and societal reality of the imperial China. A chronological exposure to different cultural practice and social structures is organized under three rubrics: illustration, painting and calligraphy, seals, ceramics, furniture, and textile.

Fall CHIN1010 S01 17001 TTh 6:40-8:00PM(15) (K. Chen)

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 15646 TTh 2:30-3:50(03) (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.

Fall CHIN2450 S01 15108 Arranged ‘To Be Arranged’

East Asian Studies

EAST 0500. Childhood and Culture in Japan.
This seminar offers students an interdisciplinary look at how children became central to social life in modern Japan. What set of historical and philosophical conditions made childhood newly visible in the late 19th century? In what ways has the relationship between the marketplace and childhood evolved over the past hundred years? How have class, gender, ethnicity and sexuality inflected the ways childhood has been experienced in Japan? Students will analyze different texts for and about children (early fairy tales, comic books, propaganda, animation) in relation to critical essays drawn from the disciplines of literature, history, anthropology, film, and social development. Permission of instructor is required for second-semester freshman. SOPH DPLL WRIT

Spr EAST0500 S01 24333 TTh 10:30-11:50(09) (S. Perry)

Korea has a long and rich history that often goes underappreciated in the U.S. and other parts of the world. At the same time, studying Korea provides a unique vantage point for understanding major processes in East Asia and the world, both in the past and the present. The aim of this introductory course is to use illuminating aspects of the Korean historical experience to set the path for an educational journey that encompasses not only learning about the Korean past, but also expanding our ability to approach cultural histories, as well as national cultures in general.

Fall EAST0530 S01 15640 MWF 2:00-2:50(07) (H. Kim)

This is a class for those who want to use popular music as a tool to more deeply understand contemporary Korea. We will address Korean popular music from the turn of the twentieth century to the latest K-pop hits, while noting the ways that the changing musical tastes of Korean people are linked to historical shifts on the Korean peninsula as well as music and performance related trends that influenced Korea from abroad. Class will use abundant music and video clips, incorporate discussions based on readings, and require student analysis that connects popular music to its context.

Spr EAST0550 S01 24331 MWF 1:00-1:50(06) (H. Kim)

This course aims to look into the interaction between language, culture and society. It will specifically examine the role of language in myriads of social contexts with special focus on Korean society. Topics to be covered in this course include language contact (e.g. with Japan and China), language variation (e.g. regional, generational, gender), language and identity, language and social class, language perceptions and attitudes, language education in a social context, and so on. Knowledge of the Korean language is preferred but not required.

Spr EAST0650 S01 24338 W 3:00-3:30(10) (W. Kim)

An introduction to major and minor works of Japanese literature produced during the Japanese Empire as well as in 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 EAST0800 S01 17000 TTh 10:30-11:50(13) (S. Perry)

EAST 1030. Words on Things: Literature and Material Culture in Early Modern China.
This course examines Chinese literary representation of artifacts written between 1000 to 1900 CE. Our discussion will highlight international trade and the transforming science and technology in early modern China. The course aims to guide students to conduct inter-artistic analysis as a means to decipher the political, religious, gendered, and technical significance embedded in literary representation of material objects. To emphasize a comparative perspective, we will also draw on scholarship outside of the field of Chinese literature. We will explore artifacts in the following categories: illustration, painting and calligraphy, seals, ceramics, furniture, and textile.

Spr EAST1030 S01 25552 TTh 6:40-8:00PM(18) (K. Chen)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
EAST 1070. China Modern: An Introduction to the Literature of Twentieth-Century China.
A general introduction to modern and contemporary Chinese literature from the May Fourth Movement to contemporary Taiwan and the People's Republic of China. Emphasizes reading of literary works in relation to topics such as cultural tradition, modernity, nationalism, revolution, class, gender, region, cultural commodification, and literary innovations. Readings in English. No previous knowledge of Chinese required.
Fall EAST1070 S01 15645 TTh 1:00-2:20(10) (L. Wang)

English has tense, Chinese has aspect; English has inflection and conjugation, and Chinese uses word order and function words to sort out syntactic structures. This course will explore and bridge such great differences between the two languages through linguistic readings and translation exercises.
Prerequisite: two years of Chinese study or the equivalent proficiency
Fall EAST1490 S01 17002 M 3:00-5:30(05) (Z. Li)

EAST 1500. Returnees in China's Modernization.
This course examines the impact on contemporary China of returnees, people who having left China to study abroad have now returned home and become reintegrated into society. Focusing on a series of in-depth studies of returnees who have carved out professional identities in the commercial world, the state, and civil society. The returnee experience will be examined from 2 angles: the manner by which contemporary returnees negotiate Chinese tradition and Western learning, and the differences between this cohort's experience and that of previous generations of returnees in China's new century and a half long period of modernization.
Spr EAST1500 S01 24337 T 4:00-6:30(16) (Z. Li)

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 1940A. Crafting Early Modern China: Handicraft, Witchcraft and Statecraft.
This course examines how Chinese cultural industry was shaped by socio-political institutions and religious practice between 1400 and 1900 CE. The course highlights the concept of craft, broadly understood as the ways of making artifacts and building social community by using environmental resources and through micro-political negotiations in everyday life. The course aims to equip students in ways to decipher the political, religious and gendered significance embedded in cultural products, including literature and decorative arts. We will explore artifacts from the following categories: literary illustration, painting and calligraphy, seals, ceramics, furniture, and textiles. Prerequisites: None.
Fall EAST1940AS01 17003 W 3:00-5:30(17) (K. Chen)

EAST 1950B. Chinese Women, Gender and Feminism from Historical and Transnational Perspectives.
This seminar 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 EAST1950BS01 24335 M 3:00-5:30(13) (L. Wang)

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 EAST1950GS01 24336 Th 4:00-6:30(17) (L. Wang)

This seminar/workshop discusses a broad range of narrative arts produced over the past 100 years in Japan, and practices the art of translating them. Drawing rigor from the field of linguistics and translation theory, we shall make central to our effort of analyzing Japanese cultural productions an attentiveness to the historicity of language and a self-consciousness of our roles as cultural interpreters. While the course will focus on mid-20th century Japanese short fiction, we will also work on poetry, music, manga, animation, and film, depending on the interests of enrolled students. Pre-requisites: JAPN 0600 or equivalent. Instructor permission required.
Spr EAST1950HS01 25396 Th 4:00-6:30(17) (S. Perry)

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.
Fall EAST1950XS01 15643 Th 4:00-6:30(04) (S. Perry)

EAST 1951B. From Desktop to Stage: Drama and Performance in Late Imperial China.
This course examines the multiple social and aesthetic functions of late imperial Chinese theatre between 1368 and 1840: theatre as lyrical self-expression, political action, ideological propaganda, and/or religious ritual. Close examination of translated plays and their sociohistoric contexts are combined with multimodal approaches that explore woodblock illustration, stage adaptation, and film related to the selected plays. The course covers topics that range from literati masterpieces, theatrical training, props and costumes, regional theatres, to women's ballads. Prerequisites: Some knowledge of Chinese history is preferred but not mandated.
Spr EAST1951BS01 25553 W 3:00-5:30(10) (K. Chen)

EAST 1951C. Picturing Korea: History and Memory in South Korean Cinema.
South Korean films have recently shown a thematic preoccupation with the nation's tumultuous history by presenting diverse stories of past event and experience. They have also rendered different ways to address the issues related to important social developments and cultural phenomena. The aim of this seminar is to think about cinema's role as a medium for visual storytelling and as a site for producing historical imaginations. Prior coursework on film and media and/or the history of East Asia is required, and students are expected to have a firm grounding in the methods of critical reading, textual analysis, and scholarly argumentation.
Fall EAST1951CS01 15641 T 4:00-6:30(09) (H. Kim)
EAST 1951D. The Two Koreas, 1945-Present.
This seminar examines the Cold War in North and South Korea through literature, music, and film. How do aesthetic works explore this historical trauma and ideological rift? Beginning with the major historical writings on the formation of two Koreas, we will look at shifting cultural discourses in postwar East Asia through key junctures. In particular, we will focus on Korean responses to the legacy of Japanese colonialism, industries of popular culture, and memories of ideological war. In the study of Cold War divisions, we will also explore the possibilities of inter-cultural dialogues and regional reintegration.

Spr EAST1951D(S01) 24332 T 4:00-6:30(16) (H. Kim)

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.
Fall EAST2450 S01 15118 Arranged 'To Be Arranged'

EASTLIST. Courses of Interest to Concentrators.

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 15625 MWF 9:00-9:50(01) (H. Tajima)
Fall JAPN0100 S01 15625 TTh 9:00-10:20(01) (H. Tajima)
Fall JAPN0100 S02 15626 MWF 10:00-10:50(14) (H. Tajima)
Fall JAPN0100 S02 15626 TTh 10:30-11:50(14) (H. Tajima)
Fall JAPN0100 S03 15627 MWF 1:00-1:50(06) (H. Tajima)
Fall JAPN0100 S03 15627 TTh 1:00-2:20(06) (H. Tajima)

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.

Spr JAPN0200 S01 24318 MWF 9:00-9:50(02) (H. Tajima)
Spr JAPN0200 S01 24318 TTh 9:00-10:20(02) (H. Tajima)
Spr JAPN0200 S02 24319 MWF 10:00-10:50(03) (H. Tajima)
Spr JAPN0200 S02 24319 TTh 10:30-11:50(03) (H. Tajima)
Spr JAPN0200 S03 24320 MWF 1:00-1:50(06) (H. Tajima)
Spr JAPN0200 S03 24320 TTh 1:00-2:20(06) (H. Tajima)

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 Department of Japanese Studies 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 15628 MWF 11:00-11:50(16) 'To Be Arranged'
Fall JAPN0300 S01 15628 TTh 2:30-3:50(16) 'To Be Arranged'
Fall JAPN0300 S02 15629 MTWTHF 12:00-12:50 'To Be Arranged'

See Intermediate Japanese (JAPN 0300) for course description. Prerequisite: JAPN 0300 or equivalent. Enrollment limited to 18.

Spr JAPN0400 S01 24322 MWF 11:00-11:50(04) 'To Be Arranged'
Spr JAPN0400 S01 24322 TTh 2:30-3:50(04) 'To Be Arranged'
Spr JAPN0400 S02 24323 MWF 12:00-12:50(05) 'To Be Arranged'
Spr JAPN0400 S02 24323 TTh 12:00-12:50(05) 'To Be Arranged'

JAPN 0500. Advanced Japanese I.
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 Japanse newspapers. Course includes translation, with writing and discussion in Japanese. Films and video tapes are shown as supplementary materials. Prerequisite: JAPN 0400 or equivalent.

Fall JAPN0500 S01 15630 TTh 12:00-12:50(14) 'To Be Arranged'
Fall JAPN0500 S01 15630 MWF 10:00-10:50(14) 'To Be Arranged'

JAPN 0600. Advanced Japanese I.
See Advanced Japanese I (JAPN 0500) for course description.

Spr JAPN0600 S01 24324 TTh 12:00-12:50(03) 'To Be Arranged'
Spr JAPN0600 S01 24324 MWF 10:00-10:50(03) 'To Be Arranged'

JAPN 0700. Advanced Japanese II.
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 15631 MWF 2:00-2:50(07) (Y. Jackson)

JAPN 0800. Advanced Japanese II.
See Advanced Japanese II (JAPN 0700) for course description.

Spr JAPN0800 S01 24325 MWF 2:00-2:50(07) (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 15632 M 3:00-5:30(05) (K. Yamashita)

JAPN 0910C. Japanese Linguistics.
This course will provide a structural overview of the Japanese language. Students will learn how to develop skills for analyzing the language through looking at sounds, meaning, and grammar. Topics include linguistic analysis of various sentence structures that students often find difficult to use, learning to choose words and sentences in appropriate situations, looking at the relation between language and culture.

Fall JAPN0910C S01 15633 MWF 1:00-1:50(06) (K. Yamashita)

JAPN 0920B. Modern Japanese Poetry.
This course is an introduction to modern Japanese poetry, which includes pre-war and post-war poetic forms. We will explore issues of modernity and identity as well as poetics through a close examination of several poems each week. We will work on translations of the poems as part of the exercise of reading. The course includes reading background information in English. No prerequisites required.

Spr JAPN0920B S01 25399 MWF 2:00-2:50(07) (K. Yamashita)
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. WRIT
Spr JAPN1310 S01 24339 M 3:00-5:30(13) (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. No prerequisite. Enrollment limited to 18. 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 KREA 0100 covers the entire year and is recorded as the final grade for both semesters.
Fall KREA0100 S01 15634 TTh 9:00-10:20(14) "To Be Arranged"
Fall KREA0100 S01 15634 MWF 10:00-10:50(14) "To Be Arranged"
Fall KREA0100 S02 15635 MTWThF 11:00-11:50 "To Be Arranged"
Fall KREA0100 S03 15636 MTWThF 12:00-12:50 "To Be Arranged"

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.
Spr KREA0200 S01 24326 TTh 9:00-10:20(03) "To Be Arranged"
Spr KREA0200 S02 24326 MWF 11:00-11:50(04) "To Be Arranged"
Spr KREA0200 S03 24327 MWF 12:00-12:50(05) "To Be Arranged"

KREA 0300. Intermediate Korean.
An intermediate course in Korean designed to further communicative competence in spoken Korean and to provide additional reading practice in stylistically higher level materials that are progressively integrated into the given dialogues. Discussions on various aspects of Korean culture and society. Five classroom hours per week. Prerequisite: KREA 0200 or instructor permission.
Fall KREA0300 S01 15637 MTWThF 9:00-9:50 "To Be Arranged"

See Intermediate Korean (KREA 0300) for course description. Prerequisite: KREA 0100-0200 or equivalent.
Spr KREA0400 S01 24329 TTh 9:00-9:50(02) "To Be Arranged"
Spr KREA0400 S01 24329 MWF 9:00-9:50(02) "To Be Arranged"

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 15638 TTh 1:00-2:20(06) (C. Park)
Fall KREA0500 S01 15638 MWF 1:00-1:50(06) (C. Park)

KREA 0600. Advanced Korean.
See Advanced Korean (KREA 0500) for course description. Prerequisite: KREA 0500 or equivalent or permission of instructor.
Spr KREA0600 S01 24330 TTh 1:00-2:20(06) "To Be Arranged"
Spr KREA0600 S01 24330 MWF 1:00-1:50(06) "To Be Arranged"

KREA 0920B. Business Korean.
For students who are interested in Korean culture in general and business culture in particular, and in improving their Korean language skills in a business context. The course not only focuses on business and economy-related words and expressions, but also on developing learners' confidence in business writing, conversation and presentations in Korean. Enrollment limited to 15. Prerequisite: KREA 0400 or instructor's permission.
Fall KREA0920B S01 15639 TTh 1:00-2:20(10) (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 terminology, 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 15647 MWF 9:00-9:50(01) (R. Friedberg)
Spr ECON0110 S01 25211 MWF 9:00-9:50(02) (R. Friedberg)

ECON 0170. Essential Mathematics for Economics.
This course teaches the mathematical skills useful for upper level Economics classes. Emphasis is on acquisition of tools, problem solving, intuition, and applications rather than proofs. This course satisfies the mathematics requirement for the Economics concentration, but does not serve as a prerequisite for upper level courses in Math, Applied Math, or other departments. Students planning further courses in those areas should take MATH 0100 or MATH 0170 (which also satisfy the Economics concentration requirement) instead. Ideally, ECON 0170 should be taken before ECON 1110, or at least simultaneously.
Fall ECON0170 S01 16612 MWF 9:00-9:50(01) (A. Poterack)
Spr ECON0170 S01 25336 MWF 12:00-12:50(05) (A. Poterack)

ECON 0390. Income, Wealth, and Health Inequality in the United States.
The course begins with issues of measurement and definition. We then turn to examine the economic underpinnings of inequality, including the relationship between education, skill, and income; the intergenerational transmission of wealth and economic status; and the causal relationship between health and income. The third part of the course looks at the driving forces behind the large rise in inequality that has occurred since roughly 1980 as well as differential trends in life expectancy and health behaviors among income groups over this period. The last section examines government policies that impact inequality and the political economy of redistribution.
Fall ECON0390 S01 16946 TTh 10:30-11:50(13) (D. Weil)
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 or advanced placement. Enrollment limited to 100. WRIT

Basic accounting theory and practice. Accounting procedures for various forms of business organizations.

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.

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.

This is an advanced microeconomic theory class for undergraduates. Building on the intermediate microeconomic course, the approach is more formal and mathematically more rigorous, presenting arguments and expecting students to carefully develop techniques in order to understand and produce logical proofs. Topics include the efficiency and coalitional stability properties of markets, as well as other mechanisms to allocate resources. Market failures are discussed, including advanced treatments of externalities, public goods, and asymmetric information. The second part of the course will discuss a number of topics in social choice theory, including different normative criteria of compensation, life and death choices, majority voting, Arrow's impossibility theorem.

ECON 1200. History of Economic Thought.
This course covers the history of modern (20th century) economics and economic thinking from the marginal revolution through the first half of the 20th century. The aim will be to develop an understanding of the origin and evolution of central concepts in economic theory, including subjective utility, marginal analysis, competitive markets, examine methodological disputes over positivism and formalism, and the development of general competitive equilibrium. We will consider the emergence of certain subfields in modern economics, and end with a discussion of the relevance of these ideas for economics in the 21st century. Prerequisite intermediate microeconomics (ECON 1110 or ECON 1130).

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; or advanced placement.

The course is concerned with macroeconomic policy in the US, 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, 0100, 0170, 0180, 0190, 0200, or 0350; or advanced placement. Enrollment limited to 30.

ECON 1310. Labor Economics.
Labor supply, human capital, income inequality, discrimination, immigration, unemployment. Prerequisite: ECON 1110 or 1130; and APMA 1650 or CSCI 1450 or ECON 1620 or 1630. Enrollment limited to 100.

ECON 1340. Economics of Global Warming.
The problem of global warming can be usefully be described with the following simple economic model. We face a tradeoff between current consumption, future consumption, and future climate, have preferences over consumption and future climate and would like to choose our optimal climate/consumption bundle. This course is organized around filling in the details required to make this model useful, characterizing the optimal climate/consumption path suggested by the model, and finally, investigating policies to achieve the optimal path.

ECON 1355. Environmental Issues in Development Economics.
Examines environmental issues in developing countries, including air and water pollution, land use change, energy use, and the extraction of natural resources. Uses microeconomic models of households and firms, linking household/firm decision-making on environmental issues to choices in labor, land, and product markets. Develops basic empirical techniques through exercises and a project. For readings, relies exclusively on recent research to illustrate the roles of econometrics and economic theory in confronting problems at the nexus of the environment, poverty, and economic development. WRIT

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. DPLL
ECON 1400. The Economics of Mass Media.
The mass media shape our culture and politics but are also shaped by their economic incentives. In this course we will use tools from microeconomics and econometrics to study the effects of mass media on economic, social and political behavior, and to study the factors that shape media content and availability. We will develop implications for business and public policy. Students will complete weekly readings, bi-weekly assignments, a take-home midterm, and a final paper and presentation. Class time will be devoted to a mix of lecture and discussion of readings and lecture topics. WRIT
Spr ECON1400 S01 25434 TTh 9:00-10:20(01) (J. Shapiro)

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.
Spr ECON1460 S01 25435 MWF 11:00-11:50(04) "To Be Arranged"

ECON 1490. Designing Internet Marketplaces.
How has the digital economy changed market interactions? The goal of this course is to help you think critically, using economic theory, about the future of the digital economy.
What are important economic activities now being conducted digitally? How has digital implementation of these activities changed economists' classical views and assumptions?
What are ways in which we can use economics to engineer "better" digital markets?
We will focus on several real-world markets (eg. eBay, AirbnB, Google advertising, Uber, Tinder, TaskRabbit) and topics (eg. market entry, pricing, search, auctions, matching, reputation, peer-to-peer platform design).
Fall ECON1490 S01 16852 TTh 10:30-11:50(13) (B. Pakzad-Hurson)

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. Enrollment limited to 30. WRIT DPLL
Fall ECON1530 S01 16785 W 3:00-5:30(17) (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 16638 TTh 2:30-3:50(03) (J. Blaum)
Spr ECON1540 S01 25594 TTh 9:00-10:20(01) (O. Galor)

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 25439 MWF 9:00-9:50(02) "To Be Arranged"

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; or advanced placement. Enrollment limited to 100.
Spr ECON1560 S01 25440 MWF 11:00-11:50(04) (D. Weil)

ECON 1570. The Economics of Latin Americans.
This course introduces students to the economic study of Latin Americans (both in the US and abroad). Topics include the determinants of economic development, institutions and growth, imperialism, conflict, immigration and discrimination.
Fall ECON1570 S01 16947 TTh 9:00-10:20(02) (P. Dal Bo)

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. Enrollment limited to 100. DPLL
Fall ECON1590 S01 16789 TTh 2:30-3:50(03) (L. Putterman)

ECON 1620. Introduction to Econometrics.
Probability and statistical inference. Estimation and hypothesis testing. Simple and multiple regression analysis. Applications emphasized. Prerequisite: ECON 0110 or advanced placement, or ECON 1110 or ECON 1130, and MATH 0090. Weekly one-hour computer conference required.
Spr ECON1620 S01 16639 MWF 11:00-11:50(16) "To Be Arranged"
Spr ECON1620 S01 25441 TTh 10:30-11:50(09) (J. Shapiro)

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. Prerequisites/(ECON 1110 or 1130); and (ECON 1620 or 1630 or APMA 1650 or APMA 1655).
Fall ECON1629 S01 16646 MWF 10:00-10:50(14) (O. Katz)
Spr ECON1629 S01 25450 MWF 2:00-2:50(07) (O. Katz)

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 0110 or advanced placement; and ECON 1110 or 1130; and APMA 1650 or CSCI 1450, MATH 1620, or ECON 1620; or equivalent.
Fall ECON1630 S01 16651 TTh 1:00-2:20(10) (O. Katz)
Spr ECON1630 S01 25448 TTh 1:00-2:20(08) (A. Norets)

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.
Spr ECON1640 S01 25449 MWF 1:00-1:50(05) (A. McClosey)
ECON 1660. Big Data.
The spread of information technology has lead to the generation of vast amounts of data on human behavior. This course explores ways to use this data to better understand the societies in which we live. The course weaves together methods from machine learning (OLS, LASSO, trees) and economics (reduced form causal inference, economic theory, structural modeling) to answer real world questions in a sequence of projects. We will use these projects as a backdrop to weigh the importance of causality, precision, and computational efficiency. Knowledge of basic econometrics and programming is assumed.

Fall ECON1660 S01 25456 T 4:00-6:30(16)  
(D. Bjorkegren)

ECON 1700. 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 or CSCI 1450.

Fall ECON1710 S01 16653 MWF 11:00-11:50(16)  
(S. Kuo)
Fall ECON1710 S02 16654 MWF 1:00-1:50(06)  
(S. Kuo)
Spr ECON1710 S01 25457 MWF 10:00-10:50(03)  
'To Be Arranged'
Spr ECON1710 S02 25458 MWF 2:00-2:50(07)  
'To Be Arranged'

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 or CSCI 1450; ECON 1710.

Fall ECON1720 S01 16655 MWF 9:00-9:50(01)  
'To Be Arranged'
Spr ECON1720 S01 25459 MWF 12:00-12:50(05)  
'To Be Arranged'

ECON 1730. Venture Capital, Private Equity, and Entrepreneurship.
This course will use a combination of lectures and case discussions to prepare students to make decisions, both as entrepreneurs and venture capitalists, regarding the financing of rapidly growing firms. The course will focus on the following five areas:
1. Business valuation
2. Financing
3. Venture Capital Industry
4. Employment
5. Exit

Fall ECON1730 S01 16656 M 3:00-5:30(05)  
(R. La Porta)

ECON 1740. Mathematical Finance.
The course is an introduction to both the economics and the mathematics of finance. Concentrating on the probabilistic theory of continuous arbitrage pricing of financial derivatives, it provides full treatment of Black-Scholes option pricing and its extensions to the case of stochastic volatility and VIX derivatives. More generally, the techniques of change of measure and risk-neutralization are extensively studied, including in the context of fixed-income securities. Finally, implications for financial econometrics (stochastic volatility processes, models of stochastic discount factors) are briefly discussed.

Spr ECON1740 S01 25460 MWF 10:00-10:50(03)  
(E. Renault)

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 or CSCI 1450; ECON 1710. Enrollment limited to 100.

Fall ECON1750 S01 16657 TTh 9:00-10:20(02)  
(K. Rozen)

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 or 1130; and 1210. Enrollment limited to 100.

Fall ECON1760 S01 16664 MWF 12:00-12:50(12)  
'To Be Arranged'

ECON 1810. Behavioral Economics.
This course provides a grounding in the main areas of study within behavioral economics, including temptation and self control, fairness and reciprocity, reference dependence, bounded rationality, happiness and neuroeconomics. For each area of study we begin with the standard model of rational decision making, and discuss what behavior this model can explain. We then discuss the experimental evidence that indicates that the standard model is missing something important, and the models that have sprung up to account for these violations. Finally, we will look at the implications of these new models for our understanding of how the economy operates.

Fall ECON1820 S01 16665 TTh 2:30-3:50(03)  
(G. De Clippel)

ECON 1850. Theory of Economic Growth.
Analysis of the fundamental elements that determine economic growth. It examines the role of technological progress, population growth, income inequality, and government policy in the determination of (a) the pattern of economic development within a country, and (b) sustainable differences in per capita income and growth rates across countries. Prerequisites: ECON 1210 and either APMA 0330, 0350 (or equivalent), MATH 0180, 0200, or 0350 (or equivalent). Enrollment limited to 100.

Fall ECON1850 S01 16786 TTh 1:00-2:20(10)  
(O. Galor)

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, 0350, or advanced placement; and ECON 1620 or 1630 or APMA 1650 or CSCI 1450, or MATH 1610. Enrollment limited to 100.

Spr ECON1870 S01 25461 TTh 2:30-3:50(11)  
(G. De Clippel)

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.

Note this course does not count toward Economics concentration credit.

Fall ECON1980 S01 16668 W 3:00-5:30(17)  
(K. Chay)

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

Techniques of mathematical analysis useful in economic theory and econometrics. Linear algebra and constrained maximization, difference and differential equations, calculus of variations.

Fall ECON2010 S01 16667 W 2:30-3:50  
(A. Poterack)
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 ECON2200 S01 25465 MW 10:30-11:50 (G. Louy)

ECON 2030. Introduction to Econometrics I.
The probabilistic and statistical basis of inference in econometrics.
Fall ECON2030 S01 16668 TTh 1:00-2:20(10) (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 25466 TTh 10:30-11:50(09) (A. Norets)

ECON 2050. Microeconomics I.
Decision theory: consumer's and producer's theory; general competitive equilibrium and welfare economics: the Arrow-Debreu-McKenzie model; social choice and implementation.
Fall ECON2050 S01 16669 MW 1:00-2:20 (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 25467 W 1:00-3:30 (K. Rozen)

ECON 2070. Macroeconomics I.
Consumption and saving, under both certainty and uncertainty; theory of economic growth; real business cycles; investment; and asset pricing.
Fall ECON2070 S01 16683 TTh 10:30-11:50(13) (O. Galor)

ECON 2080. Macroeconomics II.
Money, inflation, economic fluctuations and nominal rigidities, monetary and fiscal policy, investment, unemployment, and search and coordination failure.
Spr ECON2080 S01 25468 TTh 1:00-2:20(08) (G. Eggertsson)

ECON 2160. Risk, Uncertainty, and Information.
Advanced topics in the theories of risk, uncertainty and information, including the following: Decision making under uncertainty; expected and non-expected utility, measures of risk aversion, stochastic dominance. Models with a small number of agents: optimal risk-sharing, the principal-agent paradigm, contracts. Models with a large number of agents: asymmetric information in centralized and decentralized markets. Implementation theory.
Spr ECON2160 S01 25469 M 1:00-3:30 (K. Rozen)

ECON 2260. Political Economy I.
This first course in political economy provides theoretical and empirical coverage of the application of economic analysis to political behavior and institutions. This course is designed for students wishing to specialize in political economy but may also be useful for students specializing in related areas, such as development economics and macroeconomics. After starting with a basic overview of candidates and voters, we then turn to specific topics in the areas of electoral systems, legislatures and legislative bargaining, the role of the media, local public finance, and fiscal federalism.
Fall ECON2260 S01 16788 TTh 9:00-10:20(02) (B. Knight)

ECON 2270. Political Economy II.
This is the second course in the political economy sequence. It continues the theoretical and empirical coverage of the economic analysis to political behavior and institutions. This course is designed for students wishing to specialize in political economy. A variety of topics will be covered paying special attention to the formation of skills necessary to become a producer of research and moving away from being just a consumer.
Spr ECON2270 S01 25470 F 9:30-12:00 (P. Dal Bo)

ECON 2330. Topics in Labor Economics.
The course introduces students to procedures used to extract evidence from data and to perform rigorous causal inference in order to evaluate public policy on issues such as schooling, the return to education and returns on late intervention programs. Econometric methods, such as Instrumental Variable, Matching, Control Functions, Self Selection Models and Discrete Choice as well as Panel Data Methods, are discussed in detail.
Fall ECON2330 S01 16832 W 3:00-5:30(17) (K. Chay)

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 25471 MW 9:00-10:20 (M. Turner)

ECON 2450. Exchange Scholar Program.
Fall ECON2450 S01 15119 Spr 'To Be Arranged'
Fall ECON2450 S02 15120 Arranged 'To Be Arranged'
Spr ECON2450 S01 24068 Arranged 'To Be Arranged'

ECON 2470. Industrial Organization.
The focus of this course will be on empirical models for understanding the interactions between firms and consumers in imperfectly competitive markets. Lectures and problem sets will teach canonical models and methods; class discussion will focus on applications of these methods, especially applications outside of traditional areas of industrial organization. Students who take this class will be prepared to conduct research in industrial organization or to "export" methods from industrial organization to other areas of applied microeconomics.
Fall ECON2470 S01 16793 T 1:00-3:30 (J. Shapiro)

ECON 2485. Public Economics I.
This course covers core issues in the design of optimal government policies, and the empirical analysis of those policies in the world. In addition, this course will familiarize students with the basic empirical methods and theoretical models in applied microeconomics. Emphasis is placed on connecting theory to data to inform economic policy. Specific topics include efficiency costs and incidence of taxation, income and corporate taxation, optimal tax theory, tax expenditures and tax-based transfer programs, welfare analysis in behavioral models, and social security and retirement policy.
Fall ECON2485 S01 16795 TTh 10:30-11:50(13) (J. Friedman)

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 frictions and sharecropping arrangements; and environmental externalities (e.g., pollution, water usage, etc.), and sustainable development.
Fall ECON2510 S01 16844 MW 10:30-11:50 (B. Steinberg)

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.
Spr ECON2520 S01 25473 TTh 9:00-10:20(01) (D. Bjorkegren)
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.  

Spr ECON2530 S01  25474  TTh  10:30-11:50(09)  (L. Putterman)

ECON 2600. Bayesian and Structural Econometrics.
This course will cover a number of topics in Bayesian econometrics and estimation of structural dynamic discrete choice models. The Bayesian econometrics part of the course will start with introductory textbook material (Geweke, 2005, Contemporary Bayesian Econometrics and Statistics, denoted by G). A list of 11 topics with corresponding readings is given below. Topics 1-6 will be covered. If time permits, a subset of topics 6-11 determined by interests of the course participants will be covered as well. Readings marked with asterisk * are not required.  

Fall ECON2600 S01  16797  MW  1:00-2:20  (A. Norets)

ECON 2660. Recent Advances in the Generalized Method of Moments.
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  25475  TTh  1:00-2:00(08)  (E. Renault)

ECON 2830. Economic Growth and Comparative Development.
This course will explore the origins of the vast inequality in income per capita across countries, regions and ethnic groups. It will analyze the determinants of growth process over the entire course of human history and will examine the role of deeply-rooted geographical, institutional, cultural, and genetic factors in the observed pattern of uneven development across the globe.  

Fall ECON2830 S01  16787  F  9:30-12:00  (O. Galor)

ECON 2860. Comparative Development.
Weighing the shadow of history on contemporary economic performance occupies an increasingly important part of the agenda among growth and development economists. This course will focus on recent contributions in the literature of the historical determinants of comparative development paying particular attention on how to integrate the use of Geographic Information Systems (GIS) in the research inquiry. The goal is to get you thinking about the big historical processes that have shaped the modern world. We will go over background concepts, critically review recent works and talk about new research designs, like that of spatial regression discontinuity.  

Spr ECON2860 S01  25476  W  4:00-6:30  (S. Michalopoulos)

ECON 2890C. Topics in Macro and Monetary Economics.
This is a graduate class that covers selected topics at the intersection of macroeconomics and monetary economics, for students in the second year of the PhD and above. The leading theme of the class is the current economic crisis and how it can be modeled. The syllabus is evolving.  

Fall ECON2890C S01  16882  TTh  1:00-2:20(10)  (G. Eggertsson)

ECON 2890D. Topics in Macroeconomics, Development and Trade.
This is a graduate class that covers selected topics at the intersection of macroeconomics, economic development and trade, for students in the second year of the PhD and above. The leading theme of the class is the determinants of the observed cross-country differences in income per capita and growth rates, with a focus on the long run. We start by reviewing theories where factor markets function perfectly and only aggregates matter. We then move to non-aggregative theories, placing special emphasis on theories of financial frictions. We spend some time studying the stochastic growth model with partially uninsurable idiosyncratic risk.  

Spr ECON2890D S01  25477  TTh  2:30-3:50(11)  (J. Blaum)

ECON 2930. Workshop in Applied Economics.
No description available.  

Fall ECON2930 S01  16959  Th  4:00-5:30  'To Be Arranged'
Spr ECON2930 S01  25512  Th  4:00-5:30  'To Be Arranged'

ECON 2950. Workshop in Econometrics.
No description available.  

Fall ECON2950 S01  16960  T  4:00-5:30  'To Be Arranged'
Spr ECON2950 S01  25513  T  4:00-5:30  'To Be Arranged'

ECON 2960. Workshop in Macroeconomics and Related Topics.
No description available.  

Fall ECON2960 S01  16961  W  4:00-5:30  'To Be Arranged'
Spr ECON2960 S01  25514  W  4:00-5:30  'To Be Arranged'

ECON 2970. Workshop in Economic Theory.
No description available.  

Fall ECON2970 S01  16962  M  4:00-5:30  'To Be Arranged'
Spr ECON2970 S01  25516  M  4:00-5:30  'To Be Arranged'

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.  

Fall ECON2990 S01  15121  Arranged  'To Be Arranged'
Spr ECON2980 S01  24066  Arranged  'To Be Arranged'

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 19 first year students. FYS WRIT  
Fall EDUC0400 S01  15217  MWF  11:00-11:50(16)  (L. Speepr)

EDUC 0410A, New Faces, New Challenges: Immigrant Students in U.S. Schools.
What challenges do immigrant students face in adapting to a new system of education? By comparing and contrasting the perspectives education stakeholders—students, teachers, administrators, and parents—this course examines a number of key contributions to the study of the immigrant experience in education, as well as a selection of memoirs and films about the pathways these newcomers take in navigating school and (trans)forming their developing identities. Enrollment limited to 19 first year students. FYS  
Spr EDUC0410A S01  24143  M  3:30-5:30(13)  (A. Flores)

EDUC 0410G. The Afterschool Hours.
The family and the school are seen as the two primary institutions of childhood. But what about the space in between? Over the course of the twentieth century—once compulsory schooling became law—the way American children occupied the hours between school and home became ever more important. This course examines the literature on how youth should “best” spend their afterschool time. Looking at enrichment courses, sports, work, leisure, and more, this class introduces you to the social science method of interviewing as you learn to undertake your own original research and reflect on how you spent your own afterschool hours. FYS WRIT  
Fall EDUC0410G S01  15220  T  4:00-6:30(09)  (H. Levey Friedman)
EDUC 0860. Juveniles for Justice: Youth Civic Engagement and Activism.
This course examines the meaning of youth activism in terms of individual civic development and collective social transformation. Guiding questions include: How does youth civic engagement affect youth’s understandings of themselves, their civic identity, and belonging? How do youth engage in their communities? What effect does this engagement have? What are the barriers and bridges to engagement? Is civic engagement a universal good? The course uses ethnographic cases to explore: 1) how time, place, and social context affect youth’s engagement and notions of citizenship and 2) what transferable insights about citizenship, engagement, and change can be gleaned from study across contexts.
Fall EDUC0860 S01 16936 W 3:00-5:30(17) (A. Flores)

EDUC 0870. Sociology of Education
Exploring the sociological underpinnings of the educational system. Topics include: The historical development of education; sociological theories of education; and contemporary issues such as school choice, standardized testing, and the role of the teacher. Enrollment limited to 20 students.
Spr EDUC0870 S01 16936 Th 11:00-1:00(05) (T. Steffes)

EDUC 0880. History of Intercolligate 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 professionalism; 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 EDUC0880 S01 15227 TTh 2:30-3:50(03) (J. Li)

EDUC 0890. 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 15581 M 3:00-5:30(05) (D. Silva Pimentel)

EDUC 1000. 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 EDUC1000 S01 15252 TTh 1:00-2:20(10) (T. Steffes)

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.
Spr EDUC1010 S01 24170 Th 4:00-6:30(17) (C. Villarreal)

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 15252 TTh 1:00-2:20(10) (T. Steffes)

EDUC 1040. Sociology of Education.
While the United States educational system is widely considered the main institution through which the nation delivers on its promise of social mobility, sociologists have long recognized that schools exacerbate—or even produce—social inequality. This course provides an introduction to the application of sociology to questions of education, with a focus on the United States education system. We will ask questions such as: What do schools teach besides academics? How do social class, gender, and racial/ethnic relations shape student experiences? How can we address critical social issues through education policy?
Spr EDUC1040 S01 24151 MWF 9:00-10:50(02) (D. Rangel)

EDUC 1045. Sociology of Higher Education.
American higher education has often been characterized as the great equalizer and, thus, as one of the foundational pillars of the American Dream. In this course students will develop a sociological understanding of higher education, primarily in the United States. Using both theory and empirical evidence, we will explore issues relating to the impact of social factors on higher education. Particular attention will be paid to the role that higher education plays in promoting social mobility as well as social reproduction. Throughout we will ponder what policies might best fulfill the promise of higher education in the U.S.
Spr EDUC1045 S01 25686 MWF 11:00-12:50(04) (D. Rangel)

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 consequences 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.
Fall EDUC1060 S01 15226 TTh 10:30-11:50(13) (J. Papay)

EDUC 1070A. Student Teaching: English.
S/NC.
Fall EDUC1070A S01 25232 Arranged (L. Snyder)
Spr EDUC1070AS S01 24160 Arranged (L. Snyder)

EDUC 10700. Student Teaching: English.
S/NC.
Fall EDUC10700 S01 15232 Arranged (L. Snyder)
Spr EDUC10700AS S01 24160 Arranged (L. Snyder)

EDUC 1070A. Student Teaching: English.
S/NC.
Fall EDUC1070A S01 25232 Arranged (L. Snyder)
Spr EDUC1070AS S01 24160 Arranged (L. Snyder)
EDUC 1070B. Student Teaching: History and Social Studies.
S/NC
Fall EDUC1070B S01 15235 Arranged (C. Villarreal)
Spr EDUC1070B S01 24161 Arranged (C. Villarreal)

EDUC 1070C. Student Teaching: Science.
S/NC
Fall EDUC1070C S01 15236 Arranged (D. Silva Pimentel)
Spr EDUC1070C S01 24163 Arranged (D. Silva Pimentel)

EDUC 1080A. Analysis of Teaching: English.
S/NC
Fall EDUC1080A S01 15257 W 5:40-8:10PM (L. Snyder)
Spr EDUC1080A S01 24171 W 5:40-8:10PM (L. Snyder)

EDUC 1080B. Analysis of Teaching: History and Social Studies.
S/NC
Fall EDUC1080B S01 15256 W 5:40-8:10PM (C. Villarreal)
Spr EDUC1080B S01 24172 W 5:40-8:10PM (C. Villarreal)

EDUC 1080C. Analysis of Teaching: Science.
S/NC
Fall EDUC1080C S01 15260 W 5:40-8:10PM (D. Silva Pimentel)
Spr EDUC1080C S01 24173 W 5:40-8:10PM (D. Silva Pimentel)

EDUC 1090. Adolescence Literature.
What are teens and tweens reading? What should they read? Do books that adults view as “trashy” ruin kids’ literary sensibilities? Provide access to the wider world of academic discourse? How can reading adolescent literature provide adolescents with a path toward holding a reader identity?

This course will present a general overview of the historical, socio-cultural, academic, and political issues that provide context for the use and availability of adolescent literature today. It presents a strong introduction to contemporary texts that interest adolescents inside and outside of the classroom. 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. Students in this course will walk away with an understanding of the place of adolescent literature in today’s debates as well as a background in choosing, reading, and analyzing the literature itself. Written assignments include weekly reading responses, an annotated bibliography, and a short, 3-5 page paper. There is a substantial amount of independent self-selected reading as well as one collaborative group project with a presentation.

Fall EDUC1090 S01 15358 M 3:00-5:30(05) (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.

Fall EDUC1100 S01 15249 M 3:00-5:30(05) (J. Gujarati)

This course provides an introduction to applied statistics for conducting quantitative research in the social sciences, with a focus on education policy. Students will become acquainted with the fundamentals of probability, descriptive and summary statistics, tabular and graphical methods for displaying data, statistical inference, analytic methods for exploring relationships with both categorical and continuous measures, and multivariate regression. Concepts and methods are taught using real-world examples with multiple opportunities for students to apply these methods in practice. The course uses the statistical software program, STATA.

Spr EDUC1110 S01 24336 TTh 2:30-3:50(11) (M. Kraft)
Spr EDUC1110 S02 24137 Arranged (M. Kraft)
Spr EDUC1110 S03 24138 Arranged (M. Kraft)

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.

Spr EDUC1130 S01 24391 Th 9:00-10:20(01) (J. Tyler)

EDUC 1150. Education, the Economy and School Reform.
This seminar examines the linkages between educational achievement and economic outcomes for individuals and nations. We study a range of system, organizational, and personnel reforms in education by reviewing the empirical evidence and debating which reforms hold promise for improving public education and closing persistent achievement gaps. Understanding and critiquing the experimental, quasi-experimental and descriptive research methods used in the empirical literature will play a central role in the course. Prerequisites: Education and PP concentrators, EDUC 1110 and EDUC 1110 (or equivalent); Economics concentrators, ECON 1110 or ECON 1130, and ECON 1620. Enrollment limited to 20.

WRIT Fall EDUC1150 S01 15225 M 3:00-5:30(05) (J. Tyler)

Both an individual and a collective perspective on adolescence are used to provide an understanding of how this life stage is differently experienced by youth cross-culturally. Readings include theoretical and empirical papers from such areas as psychology, sociology, anthropology, and education.

Spr EDUC1270 S01 24142 MWF 2:00-2:50(07) (A. Flores)

EDUC 1430. Social 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 15229 MWF 9:00-9:50(01) (D. Rangel)

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. Enrollment limited to 50.

Fall EDUC1450 S01 15221 Th 4:00-5:30(04) (A. Flores)

EDUC 1580. Cross-Cultural Perspectives on Child Development.
Focus on role of culture in child development, infancy to young adulthood. Reviews contemporary theories and empirical research to examine various age periods and domains of development. Major topics: infant care, parenting, socialization, gender roles, cognition, moral development, affect, adolescence, and education and schooling in formal and informal settings. Enrollment limited to 50.

Spr EDUC1580 S01 24149 MWF 12:00-12:50(05) (J. Li)

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 24321 W 3:00-5:30(10) "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.
Spr EDUC1720 S01 24153 TTh 10:30-11:50(09) (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; professionalism; student life; and the often competing priorities of teaching, research and service. WRIT
Spr EDUC1730 S01 24139 MWF 1:00-2:50(06) (L. Spoehr)

EDUC 1740. Academic Freedom on Trial: A Century of Campus Controversies.
Inside and outside the classroom—for professors, students, administrators, and others—academic freedom has been contested by forces external and internal to the university. This course focuses on challenges to and changes in the definition and application of "academic freedom" from the end of the 19th century to the present day, with particular attention to academic freedom during times of crisis, especially wartime, and includes consideration of current issues such as speech codes, corporate and government funding of research, and the place of religion on campus. Enrollment limited to 40. WRIT
Fall EDUC1740 S01 15218 MWF 2:00-2:50(07) (L. Spoehr)

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
Fall EDUC1850 S01 15228 W 3:00-5:30(17) (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. WRIT
Spr EDUC1860 S01 24150 W 3:00-5:30(10) (J. Li)

EDUC 1870. Education and Human Development in East Asia.
This course examines education and human development in East Asia, mainly China, Japan, and South Korea, using international and comparative perspectives. We will examine the role of educational systems and key contexts such as family, school, and globalization in the development and educational processes of children and adolescents. We will also explore culturally unique concepts, diversity, and inequality in educational processes across and within these countries. The course draws on a range of contemporary studies from interdisciplin ary social science fields, some of them theoretical and many of them empirical (both qualitative and quantitative). DPLL
Spr EDUC1870 S01 24145 F 3:00-5:30(15) (Y. Yamamoto)
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 15214 W 4:00-6:30 (K. Wong)

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 24148 W 4:00-6:30 (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 15240 Arranged (K. Wong)

EDUC 2380. 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.
Spr EDUC2380 S01 24167 Arranged (K. Wong)

EDUC 2450. Exchange Scholar Program.

EDUC 2490. 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.
No description available.
Fall EDUC2490 S01 15122 Arranged "To Be Arranged"
Spr EDUC2490 S01 24067 Arranged "To Be Arranged"

EDUC XLIST. Courses of Interest to Concentrators in Education.

Egyptology and Assyriology

This course is an exploration of the mythological imagination in the ancient Mediterranean and Near East. From cosmic origins to epic battles, mighty queens to baneful monsters, mythological motives and narratives crisscrossed the ancient world, bypassing seemingly rigid geographic and cultural boundaries. Particular attention will be devoted to the study of the dynamic reinterpretation of myths in situations of cultural contact. Primary evidence will include material from Mesopotamia, Egypt, Anatolia, the Levant, Greece and Rome. The course will span several millennia, from the earliest attestations of the Epic of Gilgamesh to the Christian and Muslim reinterpretation of so-called pagan myths. FY2 WRIT
Spr ASYR0310 S01 25007 TTh 9:00-10:20(01) (F. Rojas Silva)

ASSYR 1000. Introduction to Akkadian.
An intensive introduction to the cuneiform writing system and the basic grammar and vocabulary of Akkadian, a language first attested over four thousand years ago in Mesopotamia (modern Iraq). The earliest known member of the Semitic family of languages (like Arabic and Hebrew), Akkadian was in use for over two thousand years across a wide expanse of the ancient Near East. Students will learn the classical Old Babylonian dialect of Akkadian (ca. 1800 BCE) and read Mesopotamian texts in the original, including selections from the Laws of Hammurabi, as well as excerpts from myths, hymns, prayers, historical documents, and letters.
Fall ASYR1000 S01 16557 MWF 11:00-11:50(16) "To Be Arranged"

ASSYR 1010. 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 and script 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 (ASYR 0200 or ASYR 1000) or permission of the instructor.
Spr ASYR1010 S01 25008 MWF 11:00-11:50(04) "To Be Arranged"

ASSYR 1700. Astronomy, Divination and Politics in the Ancient World.
This course will explore the relationship between astronomy, divination and politics in the ancient world. The sky provided ancient cultures with many possibilities for observing occurrences that could be interpreted as omens. In many cultures, celestial omens were directed towards the king and his government. As a result, interpreting and controlling celestial omens became an important political activity. In this course, we will explore how and why astronomical events were used politically in ancient Mesopotamia, the Greco-Roman world, and ancient and medieval China. No prior knowledge of astronomy is necessary for this course. WRIT
Spr ASYR1700 S01 25009 Th 2:30-3:50(11) (J. Steele)

ASSYR 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.

ASSYR 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.
Fall ASYR2990 S01 15099 Arranged "To Be Arranged"
Spr ASYR2990 S01 24051 Arranged "To Be Arranged"

ASSYR XLIST. Courses of Interest to Concentrators in Egyptology and Assyriology.

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. No prerequisites.
Fall EGYT1310 S01 16559 MWF 10:00-10:50(14) (L. Depuydt)

EGYT 1320. Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian II).
Continuation of a 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 25010 MWF 10:00-10:50(03) (L. Depuydt)
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 16561 MW 8:30-9:50(01) (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
Spr EGYT1410 S01 25011 MWF 12:00-12:50(05) (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.
Spr EGYT1420 S01 25012 TTh 10:30-11:50(09) (J. Allen)

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 2610. Introduction to Demotic.
Begin discussions and exercises in the grammar and peculiar script of the Demotic language. Arranged

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.
Fall EGYT2970 S01 15123 Arranged ’To Be Arranged’
Spr EGYT2970 S01 24068 Arranged ’To Be Arranged’

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.
Fall EGYT2990 S01 15124 Arranged ’To Be Arranged’
Spr EGYT2990 S01 24069 Arranged ’To Be Arranged’

EGYT XLIST. Courses of Interest to Concentrators in Egyptology and Assyriology.

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 24582 MWF 11:00-11:50(04) (J. Harry)

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. 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 15967 MWF 9:00-10:50 (K. Haberstroh)
Fall ENGN0030 S01 15962 T 9:00-10:20 (K. Haberstroh)
Fall ENGN0030 S02 15963 T 2:30-3:50 (K. Haberstroh)
Fall ENGN0030 S03 15964 Th 9:00-10:20 (K. Haberstroh)
Fall ENGN0030 S04 15965 Th 2:30-3:50 (K. Haberstroh)
Fall ENGN0030 S05 15966 Arranged (C. Bull)

ENGN 0031. Honors Introduction to Engineering.
Introduction to various engineering disciplines, thought processes, and issues. Computing in engineering, engineering design, optimization, and estimation. Case studies illustrate engineering fields and scientific principles, including in-depth studies of statics. Laboratories and design projects are included. The section of the Honors course will focus on scientific programming using MATLAB with applications in statics. Students pursuing concentrations in Mechanical, Electrical or Materials Engineering who complete the Honors course successfully may substitute an approved Engineering or Computer Science course in place of CSCI 0040. Prerequisite: one of the following: MATH 0100, 0170, 0180, 0190, 0200, 0350, 0520, 0540, which may be taken concurrently.
Fall ENGN0031 M01 15970 MWF 1:00-2:50 (K. Kim)
Fall ENGN0031 S01 15968 T 1:00-2:20 (K. Kim)
Fall ENGN0031 S02 15969 Th 1:00-2:20 (K. Kim)

ENGN 0040. Dynamics and Vibrations.
A broad introduction to Newtonian dynamics of particles and rigid bodies with applications to engineering design. Concepts include kinematics and dynamics of particles and rigid bodies; conservation laws; vibrations of single degree of freedom systems; and use of MATLAB to solve equations of motion and optimize engineering designs. Examples of applications are taken from all engineering disciplines. Lectures, recitation, and team design projects, including use of Brown Design Workshop. Prerequisite: ENGN 0030. Corequisite: MATH 0200 or MATH 0180.
Spr ENGN0040 S01 24591 TTh 9:00-10:20(01) (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 16852 TTh 1:00-2:20(10) ’To Be Arranged’
Fall ENGN0090 S02 16854 TTh 2:30-3:50(03) ’To Be Arranged’
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, airplanes, 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
Spr ENGN0120S S01 25293 MWF 11:00-11:50(04) (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
Spr ENGN0120ES S01 25294 MWF 2:00-2:50(07) (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 16851 TTh 10:30-11:50(13) (C. Bull)
Spr ENGN0260 S01 24597 TTh 10:30-11:50(09) (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 S01 15971 MWF 9:00-9:50(01) (D. Henann)

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 and optical properties of materials; strengthening mechanisms in solids and relationships between microstructure and properties. Lectures, recitations, laboratory.

Fall ENGN0410 S01 15974 TTh 9:00-10:20(02) (E. Chason)

This course presents a broad introduction to environmental engineering, and will help students to explore environmental engineering as an academic major and as career option. The course covers topics in environmental engineering: chemistry fundamentals, mass balance, air pollution, water pollution, sustainable solid waste management and global atmospheric change. The course is essential for the environmental engineering students who are planning to take more advanced courses in environmental engineering. This course is also for the students in other engineering disciplines and sciences, who are interested in environmental constraints on technology development and practice, which have become increasingly important in many fields.

Fall ENGN0490 S01 15977 TTh 1:00-2:20(10) (K. Pennell)

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 S01 15978 MWF 10:00-10:50(14) (J. Mittelmaier)

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 early and stressed throughout. Other topics include circuit theorems, power transfer, transient analysis, Fourier series, Laplace transform, a brief intro to diodes and transistors, and a little control theory. There is a lecture on engineering ethics. Laboratories apply concepts to real problems in audio and controls. Lectures, recitation, and laboratory. Prerequisite: MATH 0180 or MATH 0200, courses may be taken concurrent to ENGN 0520.

Spr ENGN0520 S01 24598 MWF 10:00-10:50(03) (J. Rosenstein)

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 S01 24693 TTh 10:30-11:50(09) (R. Hutt)


Fall ENGN0810 S01 16001 MWF 1:00-1:50(06) (K. Breuer)

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 24606 TTh 2:30-3:50(11) "To Be Arranged"
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.
Spr ENGN0930C S01 25207 MW 9:00-12:00  (I. Gonscher)

ENGN 0931. Internet of Everything.
The Internet can be visualized as Internet of information, Internet of people, Internet of places and most importantly the Internet of “things.” Internet of Everything includes these four paradigms. In this class, we will learn about how these four ideas can come together to make a difference in the world. We will study the underlying infrastructure that supports Internet, the TCP/IP model, addressing and routing. Experiments and projects in the class would include a tree on the Internet communicating with the sprinkler system only when it is thirsty. Privacy and ethical issues will also be addressed.
Spr ENGN0931 S01 24607 TTh 6:40-8:00PM(18)  (R. Pendse)

ENGN 0931L. Biomedical Engineering Design and Innovation II.
This course is an incubator for innovative ideas in biomedical design. Students across all disciplines are invited to collaborate with biomedical engineers to enhance the development of design solutions that address clinical and public health concerns. Students teams formed in the previous semester will continue develop a design project based on an unmet clinical need with a clinical advisor, gaining hands-on project experience and generating innovative solutions. Engineering concentrators should register for ENGN 1931L.
Spr ENGN0931LS01 25596 M 3:00-5:30(13)  (C. Kofron)

ENGN 1000. Projects in Engineering Design I.
Fall semester projects in design for concentrators in electrical, materials, and mechanical engineering. Students 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. Students may elect to combine ENGN 1000 with ENGN 1001 to work on a year-long project with permission of the instructor. Students electing to pursue this option must take ENGN 1000 and ENGN 1001 in the same academic year, and must submit a project proposal no later than October 1. Prerequisite: Completion of engineering core program. Written permission required.
Fall ENGN1000 S01 16122 MW 3:00-5:30  (J. Fontaine)

ENGN 1001. Projects in Engineering Design.
Spring semester projects in design for concentrators in electrical, materials, and mechanical engineering. Students work in teams on projects defined through discussions with instructor. An assembled product or detailed design description is the goal of semester’s effort. Students may elect to combine ENGN 1000 with ENGN 1001 to work on a year-long project with permission of the instructor. Students electing to pursue this option must take ENGN 1000 and ENGN 1001 in the same academic year and must have submitted a project proposal by October 1 of the previous Fall semester. Prerequisite: Completion of Engineering core program. Written permission required.
Spr ENGN1001 S01 24608 M 3:00-5:30(13)  (J. Fontaine)

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 16020 TTh 10:30-11:50(13) (D. Warshay)
Fall ENGN1010 S02 16026 M 6:00-8:30PM 'To Be Arranged'
Fall ENGN1010 S03 16027 TTh 2:30-3:50(03) (J. Harry)
Spr ENGN1010 S01 24609 TTh 10:30-11:50(09) (D. Warshay)
Spr ENGN1010 S02 24610 W 3:00-5:30(10)  (F. Slutsky)

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. Prerequisite: Junior level or higher standing.
Spr ENGN1110 S01 24645 TTh 2:30-3:50(11)  (A. Shukla)

ENGN 1120. Chemical and Biochemical Reactor Design.
Stoichiometry, thermodynamics, mechanisms, and rate expressions for homogeneous and heterogeneous chemical and biochemical systems. Basic concepts in homogeneous chemical and bioreactor design and ideal reactor models. Chemostats and enzymatic reactors. Optimization. Temperature and energy effects in reactors. Introduction to heterogeneous chemical and bioreactor design. Prerequisite: ENGN 0720 or physical chemistry. Offered in alternate years.
Fall ENGN1120 S01 16123 TTh 2:30-3:50(03) (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 24646 TTh 6:40-8:00PM(18)  (M. Wojtowicz)

ENGN 1210. Biomechanics.
Spr ENGN1210 S01 24647 MWF 2:00-2:50(07)  (I. Wong)

ENGN 1220. Bioengineering.
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 24648 TTh 1:00-2:20(08)  (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 16030 MWF 10:00-10:50(14) (D. Borton)
Fall ENGN1230 S02 16031 Arranged (D. Borton)

ENGN 1300. Structural Analysis.
This course presents a unified study of truss, beam and frame structures with emphasis on principles of virtual work and numerical methods of elastic structural analysis by matrix and finite element methods. Study will also include calculation of deflections and reactions in beam and frame structures, beam vibrations, column buckling, and structural dynamics. While the focus is on analysis theory, we also explore the application of analysis to designing real structures including computer modeling and optimization in some real design problems in structural engineering. Prerequisite: ENGN 0310.
Spr ENGN1300 S01 24649 MWF 9:00-9:50(02) 'To Be Arranged'

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. Prerequisites: CHEM 0330 and MATH 0170 or MATH 0180 or MATH 0200. Course is not available for Freshmen.
Spr ENGN1340 S01 24650 W 3:00-3:50(10) (I. Kulaots)

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 24651 Arranged 'To Be Arranged'

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 24652 TTh 9:00-10:20(01) (H. Kesari)

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 16033 TTh 6:40-8:00PM(15) 'To Be Arranged'

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 16034 Th 4:00-6:30(04) (A. Van De Walle)

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, 1440 or equivalent.
Spr ENGN1420 S01 24653 TTh 9:00-10:20(01) (B. Sheldon)

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.
Fall ENGN1440 S01 16035 TTh 1:00-2:20(10) (S. Kumar)

Focus on fundamental properties, processing, and characterization of electronic materials for microelectronic, large area, and thin film device applications. Processing Si into modern integrated circuits, e.g. VLSI, USLl, will be described in terms of materials science of unit processes (oxidation, lithography, diffusion, ion implantation, thin film deposition) used in device fabrication. Review relationship between properties of different materials classes (metals, semiconductors, insulators) and band structure. Concepts used to explain the operation of a p-n junction and simple MOS structures. Laboratory will focus on depositing materials via vapor phase synthesis methods and measuring fundamental electronic properties of materials using transport measurements.
Spr ENGN1450 S01 24654 Arranged (E. Chason)

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. Prerequisite: ENGN 0410.
Fall ENGN1460 S01 16036 TTh 2:30-3:50(03) (G. Palmore)

ENGN 1470. 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.
Fall ENGN1470 S01 16037 MWF 2:00-2:50(07) (K. Coulombe)

ENGN 1480. Nanoengineering and Nanomedicine.
Students in this course will develop a fundamental understanding of nanoengineering and its applications in medicine. We will discuss nanomaterials synthesis, fabrication, and characterization. Medical applications of these materials will include drug delivery, imaging and diagnostics, and tissue engineering approaches. Nanotoxicology will also be discussed. Research methods in nanoengineering and nanomedicine will be emphasized (i.e. critical analysis of scientific literature, effective oral and written communication). Students will also have the opportunity to gain an introduction to several nanoengineering research tools available on campus. This course is for engineering and science graduate students and advanced upper-level engineering undergraduates.
Fall ENGN1480 S01 16038 TTh 6:40-8:00PM(15) (A. Shukla)
ENGN 1560. Optics. A first course on electromagnetic waves and photonics. Topics to be covered include basic wave phenomena with an emphasis on geometric optics, the interaction of light with matter, scattering, and interference and diffraction effects. Also covered will be a selected number of more advanced topics including laser physics, nonlinear optics, transmission lines, and antennas.

ENGN 1570. Linear System Analysis. Analysis of discrete and continuous electrical signals and systems in both time and frequency domains. Modulation, sampling, spectral analysis, analog and digital filtering, Fourier, Laplace and z-transforms, the state-space approach, stability of linear systems. Prerequisite: ENGN 0520. Fall ENGN1570 S01 16040 MWF 1:00-1:50(06) (B. Kimia)

ENGN 1580. Communication Systems. We will learn basic communication and information theory, but with examples drawn from a variety of areas not normally considered communication. Basic knowledge of Laplace/Fourier transforms and frequency domain is essential (ENGN 0520 or equivalent required). Linear Systems (ENGN 1570), Probability (APMA 1650 or MATH 1610), Linear Algebra (MATH 0510 or 0540) and E&M (ENGN 0510) are helpful but not required. Analog modulation, digitization, signal space, digital modulation and noise, information theory, selected topics in modern communication/ information network theory and applications to biology and physics as time and interest permit. Depending on preparation, we may also pursue final projects. Spr ENGN1580 S01 24657 TTh 2:30-3:50(11) (C. Rose)

ENGN 1590. Introduction to Semiconductors and Semiconductor Electronics. An introduction to the physics of fundamental electronic processes that underlie the operation of semiconductor devices on a microscopic scale. Basic electronic properties of semiconductors and effects at interfaces heterogeneous media, such as pn junctions and hetero-structure barriers and quantum wells. These junctions, barriers and wells are used as building blocks for devices, focusing on bipolar and field-effect transistors. Modern trends in micro- and opto-electronic devices are discussed. A brief fabrication lab will introduce pn junction fabrication technology. Prerequisites: ENGN 0410 and 0510. Fall ENGN1590 S01 16041 MWF 10:00-10:50(14) (A. Zaslavsky)

ENGN 1600. Design and Implementation of VLSI Systems. VLSI (Very Large Scale Integration) CMOS (Complementary Metal Oxide Semiconductor) technology is still 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. Using a complete VLSI design toolset, students will be required to complete a major course project that implements a particular functional design from specification down to layout. Fall ENGN1600 S01 16128 MW 8:30-9:50(01) (R. Bahar)

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, etc., WWW, and to robotic vision, face recognition, and image compression. This senior-level undergraduate course covers theoretical underpinnings of this field and includes a series of practical MATLAB image processing projects. ENGN 1570 is recommended but not required. Fall ENGN1610 S01 16129 MWF 2:00-2:50(07) (P. Felzenszwalb)

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. Spr ENGN1620 S01 24658 MWF 2:00-2:50(07) "To Be Arranged"

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. Fall ENGN1630 S01 16042 WF 3:00-4:20(14) (W. Patterson)

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 definition languages, and implementation of a bootable version of the pipelined MIPS processor. Laboratory emphasizes design optimizations with respect to speed and design area. Prerequisite: ENGN 1630 or passing of a quiz on basic digital logic concepts, or instructor permission. Spr ENGN1640 S01 24659 MW 8:30-9:50(02) (S. Reda)

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 by small-group design teams. Activity includes product specification, circuit design, programming, printed circuit layout, construction, packaging, and economic 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. Fall ENGN1650 S01 16043 TTh 10:30-11:50(16) (J. Liu)

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 and thin film processing as they apply to ULSI circuit manufacturing. Prerequisite: ENGN 1590 or permission. Spr ENGN1680 S01 24660 MWF 10:00-10:50(03) (D. Pacifici)

ENGN 1690. Photonics and Applications. Science and engineering principles of photonics and optoelectronics, that provide foundation to a broad range of technologies from internet to lighting, from lasers to DVD, from satellite images to computer display, from solar cells to DNA molecule detection. Topical content: light as waves in media, on surface, and through holes; interference and waveguiding; light generation by spontaneous emission or by stimulation; LED, Laser, Photodetector, Optical amplifier and modulator, etc. Prerequisite: ENGN 0510 or equivalent. Fall ENGN1690 S01 16815 TTh 10:30-11:50(13) (J. Xu)

ENGN 1700. Jet Engines and Aerospace Propulsion. Dynamics and thermodynamics of compressible internal flows with applications to jet engines for both power and propulsion, rocket engines and other propulsion systems. Thermodynamic analyses of engines cycles with and without afterburners. Fluid dynamics of high Mach number systems. Structural and Materials considerations for engine design. Team projects for analysis and design of novel jet engine concepts. Prerequisite: ENGN 0720 and 0810. Fall ENGN1700 S01 16044 MWF 11:00-11:50(16) (J. Xu)

ENGN 1720. Design of Thermal Engines.
Students will work in groups on semester-long engine design projects. Projects are to incorporate: formulation of design problem statements and specifications; consideration of alternative solutions, detailed design descriptions, development and use of design methodology, development of student creativity and use of acquired engineering skills, while including realistic constraints such as economic factors, safety, reliability, ethics, social impact, etc. Lectures, laboratory, and computer-aided design projects with oral and written reports. Lectures to cover: thermodynamics, heat transfer, fluid dynamics, kinematics/dynamics, lubrication, combustion, fuels, and pollution of thermal engines. Prerequisites: ENGN 0720 and 0810.
Spr ENGN1720 S01 24663 MW 4:30-5:30(04) "To Be Arranged"

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.
Spr ENGN1740 S01 24664 TTh 7:30-8:30PM "To Be Arranged"

Fall ENGN1750 S01 16046 TTh 10:30-11:50(13) (A. Bower)

ENGN 1760. Design of Space Systems.
Working in design groups, students conceive a space mission and design all of the elements necessary for its execution including launch and orbit / trajectory, space and ground systems, including analysis of structure, thermal, radio link, power and mass budgets, attitude control and dynamics. Each group builds a hardware project to demonstrate a core element of their mission design. Prerequisites: Engineering core curriculum or equivalent
Spr ENGN1760 S01 24685 MWF 1:00-1:50(06) (R. Fleeter)

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.
Spr ENGN1860 S01 24686 MWF 11:00-11:50(04) (D. Harris)

ENGN 1930B. Biomedical Optics.
Biomedical optics is a rapidly growing field with applications in medicine, biology, and neuroscience. The course covers principles and applications of the emerging optical technology for label-free, high-resolution, threedimensional imaging called optical coherence tomography (OCT), which American Institute for Medical and Biological Engineering has recognized as the latest innovation milestone in the history of biomedical engineering. The first half will introduce a broad range of applications in neuroscience, cancer biology, dermatology, and other clinical medicine; second half will provide quantitative details of OCT techniques and hands-on 3D image processing of brain imaging data. Prerequisites: Undergraduate level ENGN 0510 Minimum Grade of S
Spr ENGN1930B S01 25296 MWF 12:00-12:50(05) (J. Lee)

ENGN 1930L. Biomedical Engineering Design, Research and Modeling.
This course is the culmination “Capstone” of the biomedical engineering educational experience. The primary objective of this course is to recall and enhance design principles introduced through the engineering core curriculum and to apply this systematic set of design engineering skills to biomedical engineering projects. Students will form teams with their peers and a clinical advisor, identify and define a design project to meet a clinical need, and engage in the design process through the course of the semester. For seniors only. Non-engineering concentrators should register for ENGN 0930L.
Fall ENGN1930L S01 16047 MW 8:30-9:50(01) (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 15 students.
Fall ENGN1930M S01 16048 Arranged (C. Bull)

ENGN 1930T. Aircraft Design.
The process of aircraft conceptual design as practiced in industry; requirements definition to initial sizing, configuration layout, analysis, sizing, optimization, and trade-off studies. Concepts and calculation methods for aerodynamics, stability and control, propulsion, structures, weights, performance, and cost; coverage of conventional and unconventional design methods drawing from knowledge gained in engineering science courses, synthesized towards novel imaginative aircraft designs guided by participants’ interests. Prerequisite: the level of senior in engineering studies.
Fall ENGN1930T S01 16049 MWF 12:00-12:50(12) (J. Liu)

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 ENGN1930U S01 25297 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 15. Field trips, critiques, and labs. Preference given to seniors. Prerequisites: APMA 0310 and APMA 0330.
Fall ENGN1931D S01 16050 M 7:00-9:40PM "To Be Arranged" (C. Bull)

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; phasors and the properties of balanced three-phase voltage and current lines; transformers and transmission lines; induction motors; brushless DC motors; power semiconductor switches; and the properties of solar photovoltaic sources and microinverters. Laboratory project. Prerequisites: ENGN 0510 and 0520.
Spr ENGN1931F S01 25298 MWF 1:00-1:50(06) (W. Patterson)
Designing kinetic systems relies on both mechanical and electrical engineering. These systems include everything from mobile robots used for rescue operation to electrically powered moving sculptures. Through a series of projects, students combine their knowledge of electronic circuit design, kinematics, control theory, microcontrollers, and programming to build interactive art and robotic vehicles. Projects culminate in the design of a kinetic system that groups enter into a class-wide competition. Some programming experience is helpful but not required. Prerequisites: ENGN 0040, ENGN 0520, and APMA 0330 (or equivalent). An additional application process will be conducted before students are approved to take the course.

ENGN 1931J. Social Impact of Emerging Technologies – The Role of Engineers.
The role of engineering sciences in an ever-changing technology-driven world. Students will develop basic working knowledge of selected contemporary technologies that help identify and forecast future prospects while discerning future disruptions. Emphasis on the importance of ethical and social responsibilities that technologists must shoulder in answering societal challenges and contributing to policy making and corporate leadership. How do we create beneficial technologies yet anticipate their potential social costs, such as workforce automation or overdependence on the internet? Will we give up brains as our last private space? Who will control the data / technology ecosystem that influences our decisions? Fall ENGN1931JS01 16052 Th 4:00-6:30(04) (A. Nurmikko)

ENGN 1931L. Biomedical Engineering Design and Innovation II.
This course is part two of the culmination “Capstone” of the biomedical engineering educational experience. The primary objective of this course is to recall and enhance design principles introduced through the engineering core curriculum and to apply this systematic set of engineering design skills to biomedical engineering projects. Student teams formed in the previous semester will continue develop a design project based on an unmet clinical need with a clinical advisor, gaining hands-on process experience and generating innovative solutions. For seniors only. Non-engineering concentrators should register for ENGN 0931L.

ENGN 1931Y. Control Systems Engineering.
Control Systems is an Engineering discipline that applies control theory to analyze and design systems with desired response behavior. The objective of this course is to introduce the student to the topic of feedback control design with applications on many diverse systems. The course will cover the fundamentals of classical control theory such as modeling, simulation, stability, controller design and digital implementation. It will also address basic aspects of state-space and modern control theory. The course is open to all Engineering majors and will make use of existing simulation packages such as Matlab/Simulink.

ENGN 1931Z. Interfaces, Information and Automation.
Labortatory-intensive course to help students develop and implement simple computer programs in Python to control, query, and integrate discrete (traditionally isolated) systems, ranging from automobiles to websites. Assignments will provide hands-on practice using programmatic interfaces to control both physical and virtual systems. Topics include physical interfaces and communication protocols (e.g., GPIB, RS-232, USB) as well as accessing online resources (e.g., SOAP and RESTful web services) and building hybrid systems for data acquisition and analysis. Formal programming experience is not required, but familiarity with either Matlab or Python (at the level of CSCI 0040 or higher) would be very helpful.

ENGN 1932B. Engineering Practice.
This course will cover issues faced by engineers which can contribute to the success or failure of engineering projects. Practical solutions will be discussed along with successful and unsuccessful efforts to address these issues. Topics include: good and bad designs, ethical issues, failure analysis, role of research, factory and plant practices, supply chain management and technology diffusion. Additionally, discussion will involve human factors. Course will be taught in a seminar mode, meeting once per week. Enrollment capped at 15 students and limited to those in their Junior or Senior year.

ENGN 1932E. Capstone 2.
The course will present the mathematical theory of engineering optimization. Review of optimization theory and techniques from calculus. Calculus of variations. Necessary and sufficient conditions for optimality. Bioinspired engineering: optimal designs found in nature. Projects involving design and fabrication of optimal engineering systems will be encouraged.

Engineers persistently aim to create new structures, machines, and devices to leverage physical principles to man’s advantage. Stemming from recent concerns over the environmental impact of technology and increased market competition, there is heightened focus on increasing efficiency. Therefore, future engineers must come up with designs that are not only functional but also optimal.

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 method of mathematical analysis in physical science and engineering. This is the first course in a two-semester sequence. It includes: Complex functions and complex calculus, Fourier series and Fourier transform, Methods for solving Partial differential equations, Calculus of variations.

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. Spring ENGN2120 S01 25277 W 3:00-5:50 (E. Suuberg)

The primary objective of the course is to train students on tools, skills, and behaviors required for effective management of complex engineering, research, and business development projects. Although the course will be framed in the context of early-stage technology companies, the skills and principles will be applicable to businesses of any size and maturity. The course is organized around three actionable themes: project management, team management, and decision making. Fall ENGN2125 S01 16061 W 3:00-5:50 (J. Harry)

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. Fall ENGN2130 S01 16062 T 3:00-5:50 (R. Petteruti)

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. Spring ENGN2140 S01 25278 T 3:00-5:50 (R. Petteruti)

ENGN 2150. Technology Entrepreneurship and Commercialization I.
ENGN 2150 and the spring ENGN 2160 form a sequence that develops the skills for technology-based entrepreneurship. It teaches creation of viable high-growth-potential new ventures from emerging science and technology. It is from emerging S&T that a high percentage of new jobs are created, both by existing large companies and through the formation of new companies. You will examine S&T for new opportunities, create novel product or service concepts from these sources and determine whether these concepts truly represent new business opportunities. Pedagogy is a combination of lectures and "experiential learning", with work undertaken as a two-semester project. Enrollment limited to 30 graduate students in the IMEE program. Fall ENGN2150 S01 16064 M 3:00-5:50 (A. Kingon)

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. Spring ENGN2160 S01 25279 M 3:00-5:50 (A. Kingon)

ENGN 2180. Globalization Immersion Experience and Entrepreneurship Laboratory.
In this course, students will gain a better understanding of the political, social and cultural dynamics that influence entrepreneurial enterprises in different world regions. Meetings will be arranged with high technology companies and their venture arms, academic incubators, investment professionals, legal professionals, government officials, entrepreneurs, and other university faculty and students. The semester becomes a global entrepreneurship and innovation "laboratory" where students experience and take part in guest lectures from experts working in other countries. Classroom discussions, student presentations, papers and readings will be used to focus and further understand the globalization dynamic and its relationship to entrepreneurship. Prerequisite: ENGN 2110. Enrollment limited to graduate students in the PRIME program. Spring ENGN2180 S01 25280 Th 3:00-5:50 (P. McHugh)

ENGN 2210. Continuum Mechanics.

A unified introduction to the engineering mechanics of elastic, plastic, and time-dependent solid materials and structures. Stress and equilibrium. Kinematics of deformation, strain, and compatibility. Tensor representation and principal values. Principle of virtual work. Formulation of stress-strain relations in elasticity, plasticity, and viscoelasticity. Uniqueness. Extremum and minimum principles, including energy methods. Spring ENGN2220 S01 25386 MWF 10:00-10:50(03) (H. Gao)

ENGN 2240. Linear Elasticity.

ENGN 2320. Experimental Mechanics.
The design and evaluation of experiments in solid mechanics. Considers methods for experimental stress analysis and for the mechanical testing of materials. Topics covered include photoelasticity, creep and relaxation tests, high-speed testing, stress wave propagation, fatigue, and fracture. Techniques, instrumentation, and recording systems for the static and dynamic measurement of mechanical parameters such as forces, displacements, velocities, accelerations, and strains. Spring ENGN2320 S01 25284 MWF 9:00-9:50(02) (K. Kim)
ENGN 2380. Fracture Mechanics.
Spr ENGV2380 S01 25285 MWF 9:00-9:50(02) (P. Guduru)
Spr ENGV2380 S02 25480 TTh 9:00-10:20(01) (P. Guduru)

ENGN 2410. Thermodynamics of Materials.
Fall ENGV2410 S01 16077 MW 8:30-9:50(01) (B. Sheldon)

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 1410 or 2410 or equivalent.
Spr ENGV2420 S01 25286 MW 8:30-9:50(02) (E. Chason)

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 ENGV2520 S01 25287 TTh 2:30-3:50(11) 'To Be Arranged'

An introduction to the basics of linear, shift invariant systems and signals and doing real processing of signal on a digital computer. 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 ENGV2530 S01 16080 MWF 14:00-14:50(16) (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 ENGV2560 S01 25288 TTh 1:00-2:20(08) (B. Kimia)

Current and proposed semiconductor devices: bipolar transistors (silicon and heterojunction); field effect transistors (MOSFETs, heterostructure, and submicron FETs); hot-electron and quantum-effect devices; and photonic devices (LEDs, semiconductor lasers, and photodetectors). Prerequisites: ENGN 1590 or equivalent introductory device course; some quantum mechanics helpful but not required.
Spr ENGV2610 S01 25289 MWF 12:00-12:50(05) (A. Zaslavsky)

ENGN 2620. Solid State Quantum and Optoelectronics.
Incorporates the study of interaction of radiation with matter emphasizing lasers, nonlinear optics, and semiconductor quantum electronics. Q-switching and mode-locking, electro- and acousto-optic interactions, harmonic generation and parametric processes, self-focusing and phase modulation, stimulated Raman and Brillouin scattering, ultrashort pulse generation, nonlinear processes of conduction electrons in semiconductors, bulk and surface polaritons. Prerequisite: ENGN 2600 or equivalent.
Fall ENGV2620 S01 16133 MWF 2:00-2:50(07) (D. Pacifici)

ENGN 2760. Heat and Mass Transfer.
Spr ENGV2760 S01 25290 MWF 10:00-10:50(03) 'To Be Arranged'

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.
Fall ENGV2810 S01 16114 MWF 2:00-2:50(07) (D. Harris)

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 ENGV2820 S01 25291 MWF 2:00-2:50(07) (M. Maxey)

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 ENGV2910S S01 25305 F 10:00-11:50(15) (A. Tripathi)

ENGN 2910S. Cancer Nanotechnology.
This course will integrate engineering and biomedical approaches to diagnosing and treating cancer, particularly using nanotechnology and BioMEMS. Topics will include the extracellular matrix and 3D cell culture, cancer cell invasion in microfluidic devices, heterotypic interactions, cancer stem cells and the epithelial-mesenchymal transition, angiogenesis and drug targeting, circulating tumor cells and biomarker detection, as well as molecular imaging and theranostics. Recommended coursework includes ENGN 1110 (Transport and Biotransport), ENGN 1210 (Biomechanics) and ENGN 1490 (Biomaterials) or equivalents
Spr ENGV2910S S01 25306 MWF 1:00-1:50(06) (L. Wong)
ENGN 2911X. Reconfigurable Computing.

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.

Fall ENGN2911X S01 16818 TTh 9:00-10:20(02) (S. Reda)

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.

Fall ENGN2912B S01 16115 MW 5:40-7:00 (To Be Arranged)

ENGN 2912F. Soft Matter

This course is a special topics graduate course on soft matter, treating polymers, liquid crystals, surfactants, and colloids. The different topics will be unified by a common approach using statistical mechanics.

Spr ENGN2912F S01 25214 TTh 10:30-11:50(09) (T. Powers)

ENGN 2912L. Topics in Bioelectronics

Seminar course covering subjects related to interactions between electronic and biological systems. Material includes energy harvesting, low-power electronic circuit design, biosensors and signal integrity, neuromorphic hardware, low-power wireless communications, and electronic biological methods. Emphasis on statistical reading, technical analysis, presentation, and discussion. Design project.

Fall ENGN2912L S01 16147 MWF 12:00-12:50(12) (J. Rosenstein)

ENGN 2912R. Implantable Devices

This course will expose students to topics across the electrical and biological sciences through lecture, design, and laboratory exercises. Students will learn basic governing concepts of implantable device design, including those of tissue interfaces, power delivery, data transmission, hermetic packaging and biocompatibility, and in vivo evaluation through appropriate animal models including design of surgical approach. Teams will be formed early in the course and maintained throughout the semester. Successful teams will invent, design, build, and implant their unique device. Teams will have access and exposure to the Technology Ventures Office through guest lectures and individual meetings.

Spr ENGN2912R S01 25307 TTh 10:30-11:50(09) (D. Borton)


This class describes the fundamentals of statistical mechanics with a focus on both traditional analytic methods and modern atomistic simulations methods. The class is divided in two parts. (i) Techniques used to calculate interactions at the atomic level are first covered, from simple interatomic potentials to quantum mechanical first-principles methods. (ii) Simulations techniques to sample atomic degrees of freedom for obtaining macroscopic quantities are then discussed, such as Monte Carlo and Molecular Dynamics. The tools presented in class are illustrated with ongoing examples that illustrate how these methods work in concert.

Spr ENGN2930 S01 25292 M 3:00-5:30(13) (A. Van De Walle)

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.

Fall ENGN2970 S01 15128 Arranged (To Be Arranged)
Spr ENGN2970 S01 24072 Arranged (To Be Arranged)
ENGL 0150F. 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 19 first-year students. FYS WRIT
Fall ENGL0150F S01 15914 MWF 10:00-10:50(14) (S. Burrows)

ENGL 0150S. The Roaring Twenties.
The 1920s helped solidify much of what we consider modern in 20th-century U.S. culture. This course reads literature of the decade in the context of a broader culture, including film and advertising, to think about the period's important topics: the rise of mass culture and of public relations, changes in women's position, consumerism, nativism and race relations. Writers include Fitzgerald, Hemingway, Larsen, Toomer, Parker. Enrollment limited to 19 first-year students.
Fall ENGL0150S S01 15915 MWF 11:00-11:50(16) (T. Katz)

ENGL 0150W. Literature and the Visual Arts.
How do words and images represent? Are the processes by which literature and the visual arts render the world similar or different? Is reading a novel or a poem more like or unlike viewing a painting, a sculpture, or a film? This seminar will analyze important theoretical statements about these questions as well as selected literary and visual examples. Limited to 19 first-year students. FYS
Spr ENGL0150W S01 24405 TTh 9:00-10:20(01) (P. Armstrong)

ENGL 0150X. The Claims of Fiction.
This course explores the interplay of tropes of strangeness, contamination, and crisis in a range of novels and shorter fiction, in English or in translation. We will ask why social misfits and outsiders somehow become such fascinating figures in fictional narratives. How do these fictions entice and equip readers to reflect on collective assumptions, values, and practices? Writers will include Baldwin, Brontë, Coetzee, Conrad, Faulkner, Ishiguro, Morrison, Naipaul, Rushdie, Salih, Shelley. Limited to 19 first-year students.
Fall ENGL0150X S01 16356 TTh 10:30-11:50(13) (O. George)

ENGL 0150Z. Hamlet/Post-Hamlet.
Shakespeare’s Hamlet is perhaps the most widely read, performed, adapted, parodied and imitated literary text of the western tradition. In this seminar we will begin by reading/re-reading the play before turning to a number of appropriations of Shakespeare, both in the west and non-west, in order to address social and aesthetic issues including questions of meaning and interpretation, intertextuality and cultural translation. Enrollment limited to 19 first-year students.
Fall ENGL0150Z S01 16972 T 1:00-3:30 (K. Newman)

ENGL 0200B. The Animal in Modernity and Postmodernity.
Since the industrial revolution, human manipulation, modification, and examination of animal life has accelerated at an unprecedented rate. From slaughterhouses and photography to laboratories and zoos, this course will consider how animal alterations impact modern and postmodern human life. Authors include Derrida, Foucault, Melville, Poe, Thoreau, Sinclair, Kafka, Sontag, and Benjamin. Enrollment limited to 17.
Fall ENGL0200B S01 17126 MWF 1:00-1:50(06) (B. Smith)

ENGL 0200C. Visionaries, Dreamers, and Dissidents: Imagining Other Worlds.
To change the world, you must first be able to imagine an alternative. This class will explore works by radical thinkers, activists, and artists from the last two centuries who dared to do just that — from communists to (occultists, Soviet sci-fi to the Syrian resistance. Authors/directors include: Marx, Nietzsche, Freud, Malcom X, Alinsky, Lynch, Gibson, hooks, Vertov, Haraway, Tsutsui. Enrollment limited to 17.
Spr ENGL0200C S01 25665 MWF 10:00-10:50(03) (I. Ben-Meir)

ENGL 0200D. Women of Color, Migration and Diaspora in America.
What does it mean to be an immigrant to a country founded on settler colonialism and slavery? Starting with indigenous women’s literature and moving on to Black, Asian and Latinx diasporas, this course will tend to the similarities and stark differences of women of color’s lived experiences in American literature. Authors include Louise Erdrich, Bhdrati Mukherjee, and Chimamanda Ngozi Adichie. Enrollment limited to 17. WRIT
Spr ENGL0200D S01 25667 MWF 11:00-11:50(04) (L. Chowdhury)

ENGL 0200E. (Victorian) Flesh.
From the Victorians we expect genteel courtesies and hushed gestures—but in the raw underbelly of the era lies the image of the grotesque body. This course dissects the flesh found in the Victorian crypts, mry rivers, and sullied sheets that also survives in our modern cultural consciousness. Texts/films include: Dickens, Poe, Wilde; Batman: Gothic; Sweeney Todd, The Fly. Enrollment limited to 17.
Spr ENGL0200E S01 25668 MWF 12:00-12:50(05) (S. Kim)

ENGL 0300F. 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 Gawain and the Green Knight, selected Canterbury Tales by Chaucer, and texts by Sir Thomas Malory, Spenser, Shakespeare, and Aphra Behn. Enrollment limited to 30.
Spr ENGL0300F S01 24406 TTh 2:30-3:50(11) (E. Bryan)

ENGL 0310A. Shakespeare.
We will read a representative selection of Shakespeare’s comedies, tragedies, histories, and romances, considering their historical contexts and their cultural afterlife in terms of belief, doubt, language, feeling, politics, and form. Students should register for ENGL 0310A S01 and may be assigned to conference sections by the instructor during the first week of class. WRIT
Fall ENGL0310A S01 15916 MWF 11:00-11:50(16) (S. Foley)

ENGL 0310F. Prose Sagas of the Medieval North.
In this course, we will read long prose fiction from medieval Iceland, Ireland, and Wales, considering how it is similar to and different from the modern novel. We will consider plot, characterization, and style in each linguistic tradition. Texts may include The Cattle Raid of Cooley, The Mabinogi, Njál's Saga, Eglí's Saga, Grettir's Saga, and Gisli's Saga.
Fall ENGL0310F S01 15917 MWF 12:00-12:50(12) (L. Jacobs)

ENGL 0510G. New Worlds, New Subjects: American Fiction at the Dawn of the Twentieth Century.
In 1900, the historian Henry Adams declared, Americans lived in a world so radically transformed that "the new American … must be a sort of God compared with any former creation of nature." This new world had many progenitors: Darwin’s theory of evolution; Nietzsche’s theory of the will; Freud’s theory of the unconscious; the rise of the mass media; the industrial production line; the triumph of consumerism; mass immigration; Jim Crow; the New Woman. This class reads works of fiction from the turn-of-the-century in the context of these transformations. Writers include Freud, Nietzsche, Stephen Crane, Henry James, and Edith Wharton.
Spr ENGL0510G S01 25662 TTh 10:30-11:50(09) (S. Burrows)

ENGL 0510R. American Renaissance.
This course examines major and lesser known writers of nineteenth-century America, emphasizing the works of Emerson, Melville, and Catharine Sedgwick. The focus is on Romantic literature and culture, with particular emphasis on the following subjects: Nature and transcendence; capitalism and its discontents; utopianism and reform; slavery and antislavery; the problem of history and national culture; and transatlantic relations. Readings include Transcendentalist essays, slave narratives, romance novels, autobiography, fiction, and lyric and epic poetry. Improved student writing is a main goal of the course.
Spr ENGL0510R S01 25524 MWF 10:00-10:50(03) (P. Gould)
ENGL 0511H. Late Romantics. 
An introduction to the varied work of canonical and non-canonical writers often described as British second-generation or late Romantics: Keats, the Shelleys, Byron, Clare, de Quincy, Hemans, Austen. We will explore what lateness constitutes for these authors as a political, aesthetic, and ethical category, and consider how it informs the kind of distinctly "Romantic" work that characterizes their writings. Particular emphasis on close readings of poetry and theoretical texts, as well as excursions into late nineteenth-century authors. Spr ENGL0511HS01 24392 MWF 1:00-1:50(06) (J. Khalip)

ENGL 0700E. Postcolonial Literature. 
Examines fiction, drama, poetry, travel writing, and cultural criticism by contemporary writers from former colonies of the British Empire. We study works by Anglophone writers from Africa, the Caribbean, and South Asia. Issues include: nationalism and globalization; cultural identity and generational differences; individual interiority and collective aspirations; literary form and the very idea of "postcolonial literature." Authors will include Coetzee, Ghosh, Kincaid, Lamming, Naipaul, Ondaatje, Rhys, Walcott, Wicomb. Enrollment limited to 30. Fall ENGL0700ES01 16354 TTh 1:00-2:20(10) (O. George)

ENGL 0700R. Modernist Cities. 
In the early twentieth century, modernist writers headed for New York, Paris, London and other cities, and based their literary experiments on forms of metropolitan life. We will discuss chance encounters, cosmopolitan and underground nightlife, solitary wandering, and bohemian communities. Writers may include Barnes, Dos Passos, Eliot, Hemingway, Hughes, Larsen, Joyce, McKay, Rhys, Woolf. Enrollment limited to 30. Spr ENGL0700RS01 25525 TTh 10:30-11:50(09) (T. Katz)

ENGL 0710L. Ishiguro, Amongst Others. 
Kazuo Ishiguro is one of the most distinctive and enigmatic voices in contemporary fiction. He has few obvious precursors, and there is little consensus among literary critics about the meanings of his work. This course will try to establish principles for reading Ishiguro's work by seeking alliances for his writing in works of philosophy, literature and cinema. Such interlocutors will include Ozu, Kiarostami, Kierkegaard, Sartre. Hadzihalilović, Doslovska, Pasolini. Fall ENGL0710LS01 15918 MWF 10:00-10:50(14) (T. Bewes)

ENGL 0710N. Fitzgerald, Hemingway, and the Lost Generation. 
An introduction to two of the most popular and influential American novelists of the twentieth century, Scott Fitzgerald and Ernest Hemingway. We will read many of their most important novels and stories, including The Great Gatsby, Tender is the Night, In Our Time, The Sun Also Rises, and A Farewell to Arms. In addition we will examine the work of the contemporary American writers who most influenced them: Gertrude Stein, Willa Cather, Sherwood Anderson, and T. S. Eliot. Fall ENGL0710NS01 16913 MWF 2:00-2:50(07) (S. Burrows)

ENGL 0710R. Poetry and Science. 
This course will examine the relationship between the observational procedures and modes of composition employed by twentieth and twenty-first century poets who have worked in more conceptually or avant-garde traditions and the practices of description and experimentation that have emerged out of history of science. Readings will range from Gertrude Stein’s poetic taxonomies to recent work in critical science studies. Spr ENGL0710RS01 25668 TTh 9:00-10:20(01) (A. Smallbogovic)

ENGL 0710V. Death and Dying in Black Literature. 
How is death represented in black literature as a topic and as a figure of genre? Which theoretical ideas help us think about the intertwining of blackness and death? How do notions of gender and sexuality inform this thinking? This course will explore works from the twentieth and twenty-first centuries to consider the scope of black literary imaginations of death. Fall ENGL0710VS01 17123 MWF 10:00-10:50(14) "To Be Arranged"

ENGL 0710W. Readings in Black and Queer. 
This course will survey works that engage the intersection of black and queer, especially from 1970 onward. We will use the central idioms of queer of color critique to think about performativity, homophobia, the erotic, and gender normativity; and will use this thinking to read literary representations in various novels, poems, nonfiction essays, plays, and films. Spr ENGL0710VS01 25664 TTh 10:30-11:50(09) "To Be Arranged"

ENGL 0900. 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. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC. Fall ENGL0900 S01 16365 MWF 11:00-11:50(16) (C. DeBoer-Langworthy)

ENGL 0930. Introduction to Creative Nonfiction. 
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 any 1000-level nonfiction writing course. Writing sample may be required. Enrollment limited. Banner registrations after classes begin require instructor approval. S/NC. Fall ENGL0930 S01 24764 MWF 12:00-12:50(05) (R. Ward)

ENGL 1030A. The Thoughtful Generalist. 
This "ONLINE" section of "ENGL1030: Critical Reading and Writing II: Research" will prepare you for academic and real-world discourse. In Canvas, you will discuss essays demonstrating deep research distilled into engaging intellectual journey. You will research and revise four explanatory, analytical, persuasive essays, using varied sources to explore subjects or issues of your choice. Mandatory peer reviews and conferences ONLINE and in person. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC. Fall ENGL1030A S01 15934 Arranged (E. Taylor)

ENGL 1030C. Writing Science. 
This course explores how science, as an academic way of thinking and a method, affects our critical thinking and expression of culture. Readings examine the various dialects of scientific discourse. Students write three major research essays on self-selected scientific topics from both within and outside their fields of study. Enrollment limited to 17. Writing sample may be required. Banner registrations after classes begin require instructor approval. S/NC. Spr ENGL1030CS01 24407 TTh 9:00-10:20(01) (C. DeBoer-Langworthy)
ENGL 1030D. Myth + Modern Essay
A writing and research focused course, in which students read a small selection of ancient texts (including The Epic of Gilgamesh and Ovid's Metamorphoses) and use the myths retold to illuminate the contemporary world and to inform the essays they write. Enrollment limited to 17. Writing sample may be required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1030D S01 15920 MWF 12:00-12:50(12) (A. Golaski)

ENGL 1030F. The Artist in the Archives
While artists can benefit greatly from archival work, they are not typically given the tools to make use of these institutions. This writing intensive course takes a two pronged approach to the problem: embedding students in archives both at Brown and RISD to produce creative, lyric, and multimedia essays; and exploring how artists have used these institutions for information and inspiration. Enrollment limited to 17. Writing sample may be required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1030FS01 15921 MWF 11:00-11:50(16) (M. Stewart)

ENGL 1030G. Backstory
Everything has a backstory—every event, every object, every idea. In this workshop-based course we will explore the archives at Brown and RISD to write three research essays for general audiences. You can expect readings, looking at how authors like David Foster Wallace, John McPhee and Eula Biss structure their pieces, workshops and in-class writing prompts to get you going. Enrollment limited to 17. Writing sample may be required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1030G S01 25523 MWF 2:00-2:50(07) (E. Hardy)

ENGL 1050A. Narrative.
This course offers a broad exploration of the many kinds of essays you can write in creative nonfiction. We will be looking at how authors structure their pieces and the range of narrative techniques they often use. You can expect workshops, in-class prompts and readings by Jamaica Kincaid, John McPhee, David Foster Wallace, Annie Dillard, David Sedaris and others. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050A S01 24408 MWF 9:00-9:50(02) (E. Hardy)

ENGL 1050B. True Stories.
This class will allow confident writers to explore and develop their creative nonfiction writing. We'll focus on two structures—nonfiction narrations and essays—with occasional forays into other forms. Students will work simultaneously on several small assignments and two larger, self-directed pieces. Readings will include cultural reportage, lyric memoir, science and nature writing, standard and hybrid essays. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050B S01 15922 MWF 1:00-1:50(06) (K. Schapira)

ENGL 1050D. Lifewriting.
We explore writing's various forms—memoir, diary, essay, graphic narrative, film, and autobiography—while crafting personal narrative. Students read sample texts, view films, and keep an electronic diary. Projects include a memoir, personal critical essay, and final autobiography, as well as shorter assignments. This is a writing workshop, so students read & critique each others work. Individual conferences with the instructor also provide feedback. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050D S01 15923 MWF 2:00-2:50(07) (C. DeBoer-Langworthy)

ENGL 1050E. Sportswriting.
This course introduces students to the practice of sportswriting, including writing sports news, features, and columns. Readings will include works by Rick Reilly, Bill Simmons, Frank Deford, Karen Russell, Allison Glock, Hunter S. Thompson, W.C. Heinz, and others. Students will develop skills in analyzing, researching, writing, revising, and workingshopping in the genre. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050ES01 24409 TTh 1:00-2:20(08) (J. Readey)

ENGL 1050G. Journalistic Writing.
This course, taught by a Pulitzer Prize-winning reporter, teaches students how to report and write hard news and feature stories. Students learn to gather and organize material, develop in-depth interviewing techniques, use public records to report stories and become better observers of everyday life. The first half of the semester focuses on hard news and investigative reporting—crime, government and court news. The second half is devoted to feature writing—profiles and the art of narrative storytelling. Class list will be reduced to 17 after writing samples are reviewed. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050G S01 16377 TTh 10:30-11:50(13) (T. Breton)
Fall ENGL1050G S02 16378 TTh 2:30-3:50(03) (T. Breton)

ENGL 1050H. Journalistic Writing.
This course teaches students how to report and write hard news and feature stories for newspapers and online. Students learn to gather and organize material, develop interviewing techniques, and hone their writing skills—all while facing the deadlines of journalism. The first half of the semester focuses on "hard" news: issues, crime, government, and courts. The second half is devoted to features, profiles, and narrative story telling. Writing sample required. Class list will be reduced to 17 after writing samples are reviewed in first week of classes. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050H S01 24410 MW 8:30-9:50(02) "To Be Arranged"

ENGL 1050J. Multimedia Nonfiction.
Through a series of short assignments, we will learn what audio, visual, and performative tools are available to us and how these different mediums can affect our stories. The course culminates in a final project where each student will pursue a long-form story of their choice of subject and medium. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050J S01 15924 MWF 2:00-2:50(07) (M. Stewart)

ENGL 1140A. Intellectual Pleasures: Reading/Writing the Literary Text.
Riffing on the generative tensions between intellectual rigor and aesthetic pleasure, this seminar will examine (through the theoretical framework of cognitive poetics) a richly diverse range of literary texts, from Susan Howe to Beowulf. Our objective: to develop an awareness of language that will reshape how we read and how we write literary texts in various genres. Writing centered. Enrollment limited to 12. Prerequisite: ENGL 0930 or any 1000-level nonfiction writing course. S/NC.
Spr ENGL1140A S01 24393 MWF 11:00-11:50(04) (L. Stanley)

ENGL 1140B. The Public Intellectual.
This course offers advanced writers an opportunity to practice sophisticated, engaged critical writing in academic, personal, and civic modes. Emphasis will be on writing "public" essays (general audience essays that do intellectual work or academic essays that address public topics), ideally in fluid, "hybrid," audience-appropriate forms. Areas of investigation will include (but are not limited to) the review essay, the cultural analysis essay, literary documentary, and the extended persuasive/analytic essay. It will include some brief "touchstone" investigations into rhetorical theory, with the aim of helping to broaden our concepts of audience, analyze the constitutive and imaginative effects of language, increase the real-world effectiveness of our own language practices, and situate our writing within current political, cultural, aesthetic and intellectual debates. Students must have sophomore standing or higher in order to be admitted to the class. A writing sample will be administered on the first day of class. Prerequisite: ENGL 0930, 1030, or 1050. Class list will be reduced to 12 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 ENGL1140B S01 24411 M 3:00-5:30(13) (C. Imbrigo)
ENGL 1160A. Advanced Feature Writing.
For the advanced writer. Nothing provides people with more pleasure than a "good read." This journalism seminar helps students develop the skills to spin feature stories that newspaper and magazine readers will stay with from beginning to end, both for print and on-line publications. Students will spend substantial time off-campus conducting in-depth interviews and sharpening their investigative reporting skills. The art of narrative storytelling will be emphasized. Prerequisite: ENGL 1050G or 1050H, or published clips submitted before the first week of classes. Class list reduced to 17 after writing samples are reviewed. Banner registrations after classes begin require instructor approval. S/NC.  
Spr ENGL1160A S01  24412  T  4:00-6:30(16)  (T. Breton)

ENGL 1180C. Advanced Creative Nonfiction: Writing with Food.
This course examines writing about food and how writing affects food and food culture. We shall explore the relationship of food to the pen through reading classic texts, writing in and out of class, guest lectures, and touring culinary archives. The goal is to polish personal voice in menus, recipes, memoir, history, reportage, and the lyric essay. Prerequisite: ENGL 0930 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 ENGL1180CS S01  24768  TTh  1:00-2:20(08)  (C. DeBoer-Langworthy)

ENGL 1180P. Further Adventures in Creative Nonfiction.
For the advanced writer. A workshop course for students who have taken ENGL 0930 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 0930 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 ENGL1180PS S01  15905  TTh  2:30-3:50(03)  (E. Hardy)

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, composing, and revising travel pieces. Students will read the best contemporary travel writing 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 0930 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 ENGL1180RS S01  24770  Th  4:00-6:30(17)  (J. Readey)

ENGL 1190M. The Teaching and Practice of Writing: Writing Fellows Program.
This course prepares students for their work as Writing Fellows. Course readings, activities, and assignments introduce students to: post-process writing theory and pedagogy; data-based investigations of the revision habits of experienced and inexperienced writers; and effective methods for responding to student writing and conferencing with student writers. 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 ENGL1190MS S01  15935  TTh  10-30-11:50(13)  (S. Kastner)  
Fall ENGL1190MS S01  15936  TTh  1:00-2:20(10)  'To Be Arranged'  
Spr ENGL1190MS S01  24771  Th  2:30-3:50(11)  (L. Stanley)

ENGL 1190U. Nature Writing.
This course seeks to develop your skills as a sensitive reader and writer of the natural world. You will build a portfolio of revised work through a process of workshops, tutorials, and conferences, and engage in discussion of a range of written and visual narratives with reference to their personal, political, and ecological contexts. Writing sample required. Prerequisite: ENGL 0930 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. S/NC.  
Fall ENGL1190US S01  15926  T  4:00-6:30(09)  (R. Ward)

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. S/NC.

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.
Fall ENGL1310VS S01  15927  TTh  2:30-3:50(03)  (E. Bryan)

ENGL 1311E. History of the English Language.
Provides an introduction to the study of the English language from a historical, linguistic, and philological perspective, and an overview of the study of the "Englishes" that populate our globe. While providing students with the ability to identify and explain language change through historical periods, also examines language as a social and political phenomenon.
Spr ENGL1311ES S01  24772  MWF  12:00-12:50(05)  (L. Jacobs)

ENGL 1361F. Spenser and Shakespeare.
A comparative study of theme, form, and genre based upon paired works: Shakespeare's Sonnets/Amoretti; Faerie Queene I/King Lear; Faerie Queene III/Twelfth Night, Midsummer Night's Dream, Winter's Tale, Tempest, Venus and Adonis; Shepheards Calendar/As You Like It. Weekly short interpretative exercises (250-500 words) submitted as CANVAS discussions; draft (1250 words) and final essay (3000 words). Enrollment limited to 20.  
Fall ENGL1361FS S01  16977  M  3:00-5:30(05)  (S. Foley)

ENGL 1361J. Seminar in Old Norse-Icelandic Language and Literature.
This course offers a thorough introduction to a language both closely related to Old English and in which survives one of the richest medieval literatures. We will start with an extensive coverage of grammar and syntax before reading short excerpts from sagas including Egil's Saga and Grettir's Saga. Enrollment limited to 20; knowledge of Old English, Latin, or German advised.
Spr ENGL1361JS S01  24773  MWF  2:00-5:00(07)  (L. Jacobs)

ENGL 1361L. Milton.
A recent book provocatively asked: "Is Milton better than Shakespeare?" Whatever one makes of that question, Milton wrote extraordinary poems in the principal modes of Renaissance verse. This course studies in detail many of those works, including the culturally monumental Paradise Lost. We'll also take into account the shape of Milton's authorial career and his always interesting ways with genre. Enrollment limited to 20 juniors and seniors.  
Spr ENGL1361LS S01  24394  Th  10-30-11:50(13)  (R. Ramsbus)

ENGL 1380. Undergraduate Independent Study in Medieval and Early Modern Literatures.
Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor permission required.

ENGL 1511C. 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.
Fall ENGL1511CS S01  17122  TTh  10-30-11:50(13)  (P. Gould)
ENGL 1511F. Wordsworth and Coleridge: Lyrical Ballads.
An introduction to and close reading of the Lyrical Ballads, one of the most radical and innovative volumes in British Romantic literature. We will pay special attention to the aesthetic, historical, ethical, and political dimensions of the text, patiently working through the poems and prefaces, as well as reading antecedent texts, in order to understand why the book was an experiment for its authors, and what are its enduring effects on our contemporary moment.
Fall ENGL1511F S01 15906 TTh 1:00-2:20(10) (J. Khalip)

ENGL 1511K. Gothic Novels and Romantic Poems.
The difference between "high Romantic" poetry and Gothic popular fiction blurs when we look closely at these haunted and haunting texts. This seminar will examine some major Romantic poems by Wordsworth, Coleridge, Keats, Shelley, and Byron in tandem with Gothic novels by Ann Radcliffe, Matthew Lewis, Jane Austen, and Mary Shelley.
Fall ENGL1511K S01 15928 MWF 1:00-1:50(06) (M. Redfield)

This course charts the course of American novel from the Civil War to the present. We will attend to the development of a distinctly novelistic literary tradition in American writing over the period and to the interactions between this tradition of literary novel writing and the emergence commercial novelistic generic forms (ie. the detective novel, science fiction). We will also consider the novel's relations to alternative literary modes (narrative history, the sketch, the short story, the occasional essay) and to alternative media (film, television, music). Melville, Twain, DuBois, James, Fitzgerald, Hammett, Hurston, Wright, Nabokov, Butler, Morrison, Dick, Didion.
Fall ENGL1511P S01 17124 TTh 1:00-2:20(10) (D. Nabers)

ENGL 1550B. Melville.
A seminar looking closely at the relation between the life and literary work of Herman Melville, with an extended reading of his masterpiece, Moby-Dick. The course will look at the history of writing and publishing during Melville's era and consider some of his contemporaries like Hawthorne and Harriet Beecher Stowe. Enrollment limited to 20.
Fall ENGL1550B S01 15929 TTh 2:30-3:50(03) (P. Gould)

ENGL 1561M. 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 Lippman to Collins, and use it to frame the novel's development from realism through modernism to postmodernism. Corporate theorists to be considered: Lippman, Dewey, Berle, Drucker, Mayo, Deming, Friedman, Coase. Novelists to be considered: Twain, Dreiser, Wharton, Stein, Faulkner, Steinbeck, Wright, Ellison, McCullers, Reed, Gaddis, Morrison. Enrollment limited to 20.
Spr ENGL1561M S01 24775 M 3:00-5:30(13) (D. Nabers)

ENGL 1561Y. In Excess: Rossetti, Hopkins, Wilde.
This seminar will be a focused close reading of three late Victorian writers whose works might be described as radically excessive insofar as they transgress and push beyond the limits of social, ethical, aesthetic, sexual, and political conventions. What does it mean to describe a text as excessive, and how can excess be considered as a constitutive part of its form? We will concentrate on poetry, plays, and theoretical texts, putting our authors into conversation with contemporary thinkers of excess. Enrollment limited to 20.
Spr ENGL1561Y S01 24395 M 3:00-5:30(13) (J. Khalip)

Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor's permission required.

ENGL 1710J. Modern African Literature.
This course considers themes, antecedents, and contexts of modern African literature and related forms. Our readings will include fiction in English or in translation, traditional oral forms like panegyric and festival poetry, and some films. We will examine how these diverse materials explore the interplay of ethnicity, nationality, and race. We will also address the issue of "tradition" in contexts where nationalisms of various stripes are becoming stronger, even as the world becomes more interconnected through trade, immigration, and digital technology. Authors will include Achebe, Adichie, Dangarembga, Kourouma, Ngugi, Salih, Soyinka, Wicomb. Films by Koyauté, Lureau, Sembène.
Spr ENGL1710J S01 24754 MWF 1:00-1:50(06) (O. George)

ENGL 1711D. Reading New York.
Explores narratives of New York City in a variety of genres, from the early 20th century to the present. Topics to be addressed include immigration, mobility, cosmopolitanism and the neighborhood, downtown, cruising, gentrification, 9/11. Work may include work by John Dos Passos, Nella Larsen, E.B. White, Jane Jacobs, Frank O'Hara, Patti Smith, Nan Goldin, Ernesto Quinones, Jonathan Safran Foer.
Fall ENGL1711D S01 17121 MWF 1:00-1:50(06) (T. Katz)

ENGL 1711H. Lyric Concepts: Expression and Experiment in Modern and Contemporary Poetry.
The lyric within contemporary poetry has often been associated with a desire to express a subjective relation to interior experience while experimental traditions have often imagined the poem as a site of formal or conceptual play devoid of specific concerns of identity. This course draws on poets such as Rankine, Moten, Robertson, Heijnian and the critical tools of affect theory to trouble these distinctions.
Fall ENGL1711H S01 17120 TTh 9:00-10:20(02) (A. Smallbergovic)

ENGL 1711J. Art for an Undivided Earth / Transnational Approaches to Indigenous Art and Activism.
The tension between indigenous literary nationalism and methodologies of cosmopolitanism and transnationalism have animated contemporary Native literary studies. At stake is the very meaning of indigeneity itself—how does indigeneity function on a global scale? How do hemispheric approaches to indigeneity transform our understanding of histories of colonialism? How have artists made connections across space without flattening the specificity of their locations?
Fall ENGL1711J S01 16978 MWF 12:00-12:50(12) (T. Warburton)

ENGL 1760J. Reading Gravity's Rainbow.
An in-depth study of perhaps the most important American novel of the twentieth century. Reading will include Pynchon's early novel The Crying of Lot 49, stories by Borges, Kafka, and Nabokov, and a range of historical, texts and films alluded to in Gravity's Rainbow, from the sermons of Jonathan Edwards to the poetry of Rilke to The Wizard of Oz. Enroll limited to 20 seniors.
Spr ENGL1760J S01 24396 W 3:00-5:30(10) (S. Burrows)

ENGL 1760Q. James Joyce and the Modern Novel.
One measure of James Joyce's achievement as a writer is his influence (as an inspiration, an antagonist, or a competitor) on novelists who came after him. Our primary concern will be with Joyce's formal innovations: How did his audacious narrative experiments transform the novel as a genre? How do his stylistic games break with the realistic tradition or expose its linguistic and epistemological workings? In addition to Dubliners, Portrait of the Artist, and Ulysses, we will read novels by Woolf, Faulkner, Beckett, and Nabokov. Enrollment limited to 20. Not open to first-year students. Instructor permission required.
Spr ENGL1760Q S01 24776 TTh 1:00-2:20(08) (P. Armstrong)

ENGL 1760Y. Toni Morrison.
This course will consider Toni Morrison's novels and essays through four prisms: her interest in the anxieties of Americanness; her attention to language, which includes a consideration of form and of literary theory; her study of love; and her figuring humanity through the experiences of people who are racially black and (often) gendered female. Not open to first-year students. Enrollment limited to 20.
Fall ENGL1760Y S01 17119 M 3:00-5:30(17) 'To Be Arranged'
ENGL 1761Q. Reading Literature in a Digital World. We will explore the implications of using digital technologies to read, study, and write literature. Does the digital pose a threat and/or an opportunity to the literary? Has the literary become obsolete in a video-driven media environment? And what place does the literary occupy in a digital world? Enrollment limited to 20 senior English concentrators.

Spr ENGL1950J S01 24398 MWF 9:00-9:50(02) (J. Egan)

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 concentrators whose applications to the Honors in English program have been accepted. Permission should be obtained from the Honors Advisor in English. S/N/C

Fall ENGL1991 S01 15931 W 3:00-5:30(17) (P. Armstrong)

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 concentrators pursuing Honors in English. Instructor permission required.

Fall ENGL1992 S01 16986 Arranged (P. Armstrong)

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 Nonfiction Writing. Instructor permission required. S/N/C

Fall ENGL1993 S01 15932 F 3:00-5:30(11) (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 concentrators pursuing Honors in Nonfiction Writing. Instructor permission required.

Fall ENGL1994 S01 16987 Arranged (C. Imbriglio)

ENGL 2210. Proseminar. This seminar, required for first-year graduate students in English, considers the state and stakes of literary studies today. The course aims to familiarize students with contemporary critical debates and stances in the wider discipline, and to engage with current methodologies, theories, and analytical tensions. We also address issues of professionalization as they relate to the first years of graduate work. Enrollment limited to 10. S/N/C

Fall ENGL2210 S01 16477 F 10:00-12:30 (R. Reichman)

ENGL 2361B. Seventeenth-Century Lyric Poetry. Close reading and literary and historical contextualization of 17th-c. "major" and "minor" poets, beginning with the daringly experimental Donne, and then Jonson, Herrick, Herbert, Lanyer, Crashaw, and Marvell. In addition to an abiding concern with genre and literary history, we'll study expressions of erotic desire; affective cross-circuits between sacred and erotic devotion; and Renaissance notions of authorship and literary authority. Enrollment limited to 15 graduate students.

Fall ENGL2361B S01 15909 W 3:00-5:30(17) (R. Rambuss)

ENGL 2380. Graduate Independent Study in Medieval and Early Modern Literatures. Section numbers vary by instructor. May be repeated for credit. Instructor's permission required.

ENGL 2450. Exchange Scholar Program. Fall ENGL2450 S01 15125 Arranged 'To Be Arranged'
ENGL 2561H. American Literature Without Borders
Recent theoretical and critical approaches to colonial and 19th-c. American literature: transatlantic, Caribbean, hemispheric; imperial, colonial and postcolonial cultural formations; the Black Atlantic; diasporic and migration studies. Enrollment limited to 15 graduate students.
Spr ENGL2561H S01 24399 M 3:00-5:30(13) (P. Gould)

ENGL 2561S. Corporate Aesthetics.
An examination of the relationship between American literature and the rise and persistence of the corporation as the principal means of economic, social, and political organization in the United States from the middle of the nineteenth century to the present. Authors to be considered include Twain, Wharton, Hopkins, Johnson, Hurston, West, Faulkner, Hughes, and Highsmith. Enrollment limited to 15 graduate students.
Fall ENGL2561S S01 15910 Th 4:00-6:30(04) (D. Nabers)

Section numbers vary by instructor. May be repeated for credit. Instructor’s permission required.

ENGL 2761N. Theories of Affect: Poetics of Expression Through and Beyond Identity.
Drawing on the tools of affect theory and critical race studies this collaborative seminar examines how poetic works can simultaneously be engaged in audacious formal and conceptual experimentation while remaining committed to imagining how subjectivity might be experienced both through and beyond structures of gender, race and sexuality. Readings include: Theresa Cha, Myung Mi Kim, Fred Moten, Claudia Rankine, Sara Ahmed, Gilles Deleuze, Baruch Spinoza. Enrollment limited to 15 graduate students.
Spr ENGL2761N S01 24760 T 12:00-2:30 (D. Kim)

ENGL 2761O. Postcolonial Theory.
In this introduction to postcolonial theory we will consider key Western sources (Hegel, Marx, Lacan, Levi Strauss, Emmanuel Levinas); anticolonial manifestos (Gandhi, Fanon, Césaire, Memmi); political and ethical practices (civil disobedience, armed struggle, friendship). In addition to canonical critics ( Said, Bhabha, Spivak), the course will review new interests in the field (transnationalism, non-western imperialisms, the environmental turn). Enrollment limited to 15 graduate students.
Spr ENGL2761O S01 24400 W 3:00-5:30(10) (L. Gandhi)

ENGL 2761P. Modernism and Theories of Space.
This course analyzes literary modernism as it intersects with theories of space both historical and formal. Topics include: colonialism and global spaces, Fordist production, gendered public/private divisions, as well as networks, underworlds, spatial form, and models of wandering. Readings include work by Lefebvre, Harvey, Latour, Frank, Larsen, Joyce, McKay, Woolf. Enrollment limited to 15 graduate students.
Spr ENGL2761P S01 24401 Th 4:00-6:30(17) (T. Katz)

ENGL 2761Q. Blackness and Being: Studies in Black Literary and Cultural Criticism.
Through some recent critical readings, we will think about the enduring “problem” of blackness—its representational, aesthetic, and/or philosophical (ontological, epistemological, ethical) challenges. Our study will think through feminist and queer studies, as well as through diaspora and American and ethnic studies. We will also think historically about what motivates various turns to thinking about blackness and being. Enrollment limited to 15 graduate students.
Spr ENGL2761Q S01 24752 Th 4:00-6:30(17) ‘To Be Arranged’

ENGL 2780. Graduate Independent Study in Modern and Contemporary Literatures.
Section numbers vary by instructor. May be repeated for credit. Instructor’s permission required.

ENGL 2900N. Ethical Turns in Psychoanalysis and Literature.
This course examines ethics, broadly conceived, as the place where literature and psychoanalysis intersect or coexist in tense or collaborative relation. We will consider ethics at sites or moments of transition—as turns, upheavals, or ordinary acts that bring into view notions of responsibility, conviction, obligation, knowledge, ignorance, and complicity. Readings by Barthes, Benjamin, Fanon, Arendt, Freud, Lacan, Winnicott, Klein, Butler. Enrollment limited to 15 graduate students.
Spr ENGL2900N S01 24402 F 3:00-5:30(15) (R. Reichman)

ENGL 2901J. Classical and Post-Classical Narratology.
The recent emergence of “post-classical narratology” signals a renewed interest in developing models to explain the functions and structures of narrative. The seminar will examine the most influential classical theories of narrative (from Genette and Barthes to Iser and Ricoeur) through the lens of contemporary debates about cognitive narratology, “unnatural narrative,” queer and feminist narratology, and new media. Enrollment limited to 15 graduate students.
Fall ENGL2901J S01 15911 F 3:00-5:30(11) (P. Armstrong)

ENGL 2940. Scholarly Writing for Journal Publication.
Writing and professionalization workshop intended for graduate students in literary studies. Topics covered include selection of journal; framing, structuring and composition of the article; the logistics of peer review; sharing and workshopping drafts; working with academic mentors and advisors. Every passing student will have a publishable article under consideration by the end of the semester. Enrollment limited to 12 English Ph.D. students. Instructor permission required. S/NC.
Fall ENGL2940 S01 16478 M 3:00-5:30(05) (T. Bewes)

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. Enrollment restricted to students in the English Ph.D. program.
Fall ENGL2950 S01 15912 T 12:00-2:30 (J. Readay)

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.
Fall ENGL2970 S01 15126 Arranged ‘To Be Arranged’
Spr ENGL2970 S01 24070 Arranged ‘To Be Arranged’

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.
Fall ENGL2990 S01 15127 Arranged ‘To Be Arranged’
Spr ENGL2990 S01 24071 Arranged ‘To Be Arranged’

ENGL XLIST. Courses of Interest to Students Concentrating in English.

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 intermodal systems, recycle-a-bike programs, intelligent transportation systems, and other innovations. Enrollment limited to 19 first year students. Instructor permission required. FYS WRIT
Fall ENVS0070C S01 15937 ‘To Be Arranged’
This is an engaged scholars course that offers an introduction to contemporary environmental issues. 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 resources, environmental justice and ethics, and agro-food systems. This course also analyzes various solutions—social, political, technical, and economic—put forth by institutions and individuals to address questions of environmental sustainability. Students must join a 90-minute weekly discussion section. Each section will partner with a community organization to complete an engaged, local project.
Fall ENVS0110 S01 16953 MWF 10:00-10:50(14) (D. King)

ENVS 0150. Climate Futures and a Sociology of Just Transitions.
This course, team-taught with Professor Damian White of RISD, seeks to build a reconstructive environmental sociology of the sustainable transition, incorporating debates from political ecology, critical design studies and energy/technology studies. It debates the merits of green capitalism and post-capitalist, socio-centric and technocratic visions of the transition away from fossil fuels. Class will be meet on the RISD campus.
Fall ENVS0150 S01 16956 W 1:10-4:10 (J. Roberts)

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.
Fall ENVS0490 S01 15376 TTh 10:30-11:50(13) (S. Porder)

ENVS 0495. Introduction to Environmental Social Science.
This course introduces students to core areas of theory and research in the environmental social sciences. It also challenges students to think carefully about what we learn and don't learn when we apply different disciplinary lenses to interdisciplinary environmental challenges.
Spr ENVS0495 S01 24420 TTh 9:00-10:20(01) (S. Frickel)

ENVS 0705. Equity and the Environment: Movements, Scholarship, Solutions.
The environmental justice movement emerged in the U.S. South from the observation that African-Americans were more exposed to toxics than whites. It spurred decades of academic and activist efforts to understand and address the relationship between inequality and environment. The issue has expanded around the world, and beyond unequal exposure to "bads", to unequally access to "goods", along lines of equity by race, class, gender, ethnicity, indigenous identity, and position in the global economy. Issues of assigning responsibility and applying theories of justice with legal instruments have made environmental justice policy difficult. This course seeks to serve first-years and sophomores.
Spr ENVS0705 S01 25510 W 3:00-5:30(10) (J. Roberts)

From wood, water, and muscles, to coal, oil, and nuclear power, humans have a long history of reshaping their environments to access energy. The nature of these energy sources also influences the form and distribution of political and economic power. Using environmental history methods, this course examines the ties between energy, power, environmental change, and inequality, from before the agricultural revolution to the present. Readings and lectures link the United States and Europe to the rest of the globe, with particular emphasis on the nineteenth and twentieth centuries. Each class combines lecture and discussion. No prerequisites.
Fall ENVS0710 S01 16012 TTh 2:30-3:50(03) (B. Demuth)

ENVS 1105. Introduction to Environmental GIS.
This course introduces the tools, techniques and fundamentals of Geographic Information Systems (GIS) using the ArcGIS software package. GIS has broad applications in environmental, natural and social sciences. Examples include disaster management, transportation planning, and environmental quality assessment, to name a few. By the end of this course, students will understand processes of spatial data analysis, geographic databases, visualization and cartography, and uncertainty quantification. Students will produce an independent final research project and publish results as a Story Map on ArcGIS Online. Course override required. Contact the instructor (samiah_moustafa@brown.edu), including your year and statement of interest.
Spr ENVS1105 S01 24422 TTh 10:30-11:50(09) (S. Moustafa)

This course equips students with theoretical and empirical tools to analyze environmental issues from the perspective of economics. First, we review work on and why the markets fail, compelling policy solutions (e.g., cap-and-trade), and cost-benefit analysis. Second, we survey methods to quantify the benefits of environmental regulations, including revealed and stated preference methods, a primer on climate-economy modeling, and a real-world application in a class research project. Third, we study the costs of environmental regulations. We conclude with advanced policy considerations (e.g., trans-boundary pollutants), private market solutions/corporate social responsibility, and select special topics (e.g., resources and economic development).
Fall ENVS1350 S01 15375 TTh 10:30-11:50(13) (L. Barrage)

ENVS 1400. Sustainable Design in the Built Environment.
Course develops students' analytical abilities to apply fundamental concepts of environmental issues, building systems analysis, and architectural and engineering design. Students learn how to reduce the negative environmental impacts, and maximize positive social and economic impacts, of the built environment. Students cultivate applied skills in sustainable design, including fundamental energy calculations, heat flow analysis, schematic design analysis, and building operating impacts assessment. Course emphasis is on building energy flows. Students conduct independent research projects, providing the opportunity to study broader impacts of the built environment and propose solutions. Class meetings combine lectures, student presentations, and group workshops.
Fall ENVS1400 S01 16497 W 3:00-5:30(17) (K. Teichert)

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 11229 Arranged "To Be Arranged"

ENVS 1491. SES-Terrestrial Ecosystem Analysis.
Team-taught course examining: the structure of terrestrial ecosystems, fundamental 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 11230 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 11231 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 11232 Arranged 'To Be Arranged'

ENVS 1555. Urban Agriculture: The Importance of Localized Food Systems.
This is an engaged scholar course. Urban agriculture has a critical function in a small but increasing movement toward more localized and sustainable food systems. This course focuses on research and readings from multiple disciplines addressing urban agriculture and local food systems' role in shaping food policies, labor practices, sustainable agricultural practices, and human health (to name a few). More importantly, students will work with community partners to actively engage in a local food system project. Enrollment limited to 40. Instructor permission required. Email Prof. King to request override (Dawn_King@brown.edu).

ENVS 1574. Engaged Climate Policy in the U.S.: Rhode Island and Washington, DC
Sufficient and equitable policies addressing the crisis of climate change have been elusive, and United States leadership is crucial for an adequate global response. After several weeks of readings and lectures on climate policy, the course shifts to team-based research to produce strategic, policy-relevant briefings and scholarly outputs with partner organizations in Rhode Island, Washington, and internationally. Students will travel to D.C. for three days to attend meetings and a mini-conference with experts and staff from government agencies, industry organizations, think tanks, and environmental NGOs, and to hold a briefing on our joint research.
Fall ENVS1574 S01 17143 M 3:00-5:30(05) (J. Roberts)

This course investigates current environmental impacts and risks related to urban infrastructure systems. Students analyze efforts to minimize negative environmental, health and economic impacts of the built environment. The course explores urban initiatives to increase sustainability and resiliency of infrastructure systems in anticipation of increased risks related to climate change. The goal is to learn the rationale, process and technical aspects of the practice of environmental stewardship and resilience planning in an urban context. Students will develop competence in technical analysis, policy analysis, and program implementation through case studies and systems analyses.
Spr ENVS1580 S01 24424 TTh 10:30-11:50(09) (K. Teichert)

Scholars in many disciplines have begun using the term the Anthropocene to signal a geological epoch defined by human activity. This seminar examines the Anthropocene idea from the perspective of environmental history. What activities might have changed the planet – the use of fire thousands of years ago, or agriculture, or fossil fuels? Is the Anthropocene another term for climate change, or does it include pollution and extinction? Is it a useful concept? Drawing on anthropology and the sciences as well as history, we will use the Anthropocene to think through environmental change and the human relationship with the non-human world. WRIT
Fall ENVS1910 S01 15944 Th 4:00-6:30(04) (B. Demuth)

ENVS 1913. China’s Environment: Power, Pollution and Hope.
This course focuses on key environmental issues transforming Chinese landscapes and society. It introduces students to China’s geography and identifies contemporary environmental problems (including air, water and soil pollution, biodiversity loss, etc.) as well as their proposed solutions. Considering China’s recent history of rapid economic growth and stark socio-economic inequalities, a central objective of the course is to develop tools to effectively locate environmental issues within a broader political, social and economic context — a skill transposable to other geographical and environmental contexts. We will draw on scholarship from geography, anthropology, political science, and environmental science.
Fall ENVS1913 S01 16955 T 4:00-6:30(09) 'To Be Arranged'

ENVS 1914. Colonization and Environmental Change in Chinese History.
This course explores how the wide diversity of cultures and ecosystems that existed across the East Asian mainland 3,000 years ago came to be replaced with the language, culture and agricultural practices of North and Central China. It aims to teach students to think comparatively about processes of colonialism, especially the environmental aspects of the gradual colonization of non-Chinese ethnic groups in what is now South China.
Spr ENVS1914 S01 25511 Th 4:00-6:30(17) (B. Lander)

This course provides an introduction to a wide range of research approaches in the social and environmental sciences. We will cover the epistemological and theoretical foundations of various research approaches and discuss implications of these foundations for what research questions are answerable and what evidence one can bring to bear to answer such questions. By the end of the semester, students will be able to write a clear and answerable research question, and know what methods are appropriate to use to answer such a question. Enrollment limited to ENVS Juniors. ENVS seniors must receive instructor override from Professor VanWey, leah_vanwey@brown.edu. WRIT
Fall ENVS1920 S01 15377 TTh 1:00-2:20(10) 'To Be Arranged'

From coal power to solar power, energy drives economies and increases quality of life world-wide. 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. WRIT
Spr ENVS1925 S01 24427 M 3:00-5:30(13) (D. King)

First semester of individual analysis of environmental issues, required for all environmental studies concentrators. 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 concentrators. 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 2450. Exchange Scholar Program.
ENVS 2980. 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 2981. 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.

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 15.

FREN 0110A. Basic French Language and Culture.
Intensive course for beginners. Nine contact hours per week, double credit. Students should expect at least 2 hours of homework daily. No prior knowledge of French expected. Communication in class in French only.

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 15.

FREN 0300. Intermediate French I.
A semi-intensive elementary review with an emphasis on all four skills (listening, speaking, reading and writing). Class activities include drills, small group activities, and skills. Class materials include 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.

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.

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, a graphic novel, films and a longer novel. Activities include a creative project using Comic Life, and a systematic grammar review. Prerequisite: FREN 0400, FREN 0200 with written permission, or placement.

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 15. WRIT

FREN 0610. Writing and Speaking French II: International Relations.
Prerequisite for study in French-speaking countries. Continuation of FREN 0500. Class time is devoted mainly to conversation and discussion practice. Same level as FREN 0600. This course is designed for students who are interested in international relations. Discussions and writing assignments are related to global politics from French and Francophone perspectives and introduce students to the discourse of international relations in French. Prerequisite: FREN 0500. Enrollment limited to 18. WRIT

FREN 0720E. L’art de la nouvelle.
What sort of story is the short story? What kinds of possibilities and pressures distinguish it from other forms? Attentive to its contained – and constrained – narrative economy, we shall study a range of examples of the genre, from 19th century realist and fantastic literature (Maupassant, Flaubert, Nerval) to modern French and Francophone texts (Sartre, Beckett, Djebar, Redonnet). Taught in French. Prerequisites: 5 on Advanced Placement Testing, 700 and above SAT II, or Instructor's Permission
FREN 0720F. Paradigms of Difference in the 19th-Century French Novel and Short Story
Examines constructions of class, race, gender, and sexuality in relation to 19th-century French culture and literary movements, including romanticism, realism and naturalism, decadence, and the popular novel. Topics include constructions of homosexuality, fatal femininity, besieged masculinity, sexuality and race, prostitution, bored housewives. Works by Duras, Balzac, Flaubert, Zola, Maupassant, Rachilde, accompanied by non-fictional sources in early sexology and criminology. Taught in English. Spr FREN0720F S01 25601 TTh 1:00-2:20(08) (G. Schultz)

FREN 0820A. Identité et différence dans le monde francophone
How have racial and cultural minorities in France and the French-speaking world thought about identity and difference since decolonization began after World War Two? And how have minorities in metropolitan France begun to use racial categories to challenge universalist narratives of social inclusion? This sophomore seminar will study these and related questions as we explore race as a political and cultural category in the Francophone world. We will consider a variety of contexts, including Caribbean politics, postcolonial Africa, and urban violence in contemporary France. In French. Prerequisites: 5 on Adv Placement Test, 700+ on SAT II or Instructor's Permission Spr FREN0820A S01 25483 M 3:00-5:30(13) (J. Izzo)

FREN 1000B. Littérature et culture: Chevaliers, sorciers, philosophes, et poètes.
From the Middle Ages to the Age of Versailles, this course examines 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 literary texts and films will provide a window onto French civilization before the Revolution. Readings include medieval epic, Montaigne, and Descartes. In French. Prerequisite: a course at the 600- or 700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown. Fall FREN1000BS01 16364 TTh 2:30-3:50(03) (V. Krause)

FREN 1020B. History of Romance Languages.
The Romance family is one of the most widely-spoken and politically important language families. The aim of this course is to introduce students to the history and linguistic characteristics of the Romance family. Our purpose is to learn the factors that led to the development of modern standard Romance languages, and provide an understanding of Romance structures and their linguistic relationships. The course covers language families; genetic relationships (family trees); typological comparison; internal versus external history; language contact and borrowing; Romance Pidgins and Creoles; Standard language versus dialect; social variation; concepts of Phonetics and Phonology; Morphology; Syntax; Semantics; Lexicon. Fall FREN1020B S01 17038 TTh 10:30-11:50(13) (O. Mostefai)

FREN 1040B. Pouvoirs de la scène: le théâtre du XVIIe siècle.
This course examines how 17th-century theater both reinforces and undermines the ideologies of absolutism, national identity, the nuclear family, and emerging bourgeois consciousness, among others. Special consideration will be given to the theory and performance of theater in the 17th century and the present. Readings will be supplemented with screenings of videos for the plays studied (as available). In addition to the papers and oral presentations, students will stage selections from some of the plays studied. Plays by Rotrou, Corneille, Molière, Racine, and an opera by Quinault/Lully. Taught in French. Prerequisite: a course at the 0600 or 0700 level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown. WRIT Spr FREN1040BS01 24880 MWF 11:00-11:50(04) (L. Seifert)

FREN 1210F. L’œuvre romanesque de Marguerite Duras.
Starting with her first novels in the 1950s and up until her broad recognition, for The Lover, as France's most renowned female writer of the post-WWII period, Marguerite Duras was involved in profound research into the form and force of novelistic narrative. Our course will examine a representative set of her texts from three different points of view: narrative, writing, femininity. Prerequisite: a course at the 600- or 700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown. Taught in French. Fall FREN1210F S01 17035 TTh 6:40-8:00PM(15) (D. Willis)

FREN 1310N. La Pornographie.
In 1769, Restif de la Bretonne coined the word pornographe: one who writes (graphein) about prostitution (pornē is the prostitute). It is in literature, then, that what is known today as “pornography” was invented. This course will be dedicated to classics of the pornographic genre (from Sade to Bataille), to pornological essays (by Deleuze or Nancy), and to the political stakes of pornography in contemporary writings (by Despentes or Guibert). We will not forget cinema (with films by Genet or Bonello): if pornography pertains to a compulsion to show everything, what would be the blind spot of its absolute visibility? Fall FREN1310N S01 17037 T 4:00-6:30(09) (L. Odello)

FREN 1330A. Fairy Tales and Culture.
Fairy tales, which occur in almost every culture, encapsulate in (usually) succinct form many of the pressing concerns of human existence: family conflict, the struggle for survival, sexual desire, the quest for happiness, etc. This course explores why writers and readers have been attracted to the fairy-tale form through a study of its key elements and its uses in adult and children's literature, book illustration, and film. Special attention given to French contes de fées, along with North American, English, German, Italian and selected non-Western fairy tales. Discussions and readings in English with French, German, and Italian originals on reserve. Prerequisite: a course at the 600- or 700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown. WRIT Fall FREN1330A S01 16360 MWF 11:00-11:50(16) (L. Seifert)

FREN 1330E. Transatlantic Surrealisms.
“Surreal” refers to what is incongruous, uncanny, or downright bizarre. Those terms describe many poetic and artistic productions belonging to Surrealism, without for all that explaining the literary and theoretical underpinnings of the movement at its origins in the 1920s, or accounting for the international flowering of its ideas and its continued influence. The class will attempt to trace the complexities of Surrealism from its modernist prehistory, through “canonization,” to diversification and waning in the 1960s. We will also study surrealism vis-à-vis the shift in cultural capital from Europe to the New World, and reverberations in subsequent artistic forms. The following prerequisite should appear in the course description only, but not be hard-coded in the system. Taught in English. Spr FREN1330E S01 25608 Th 4:00-6:30(17) (D. Willis)

FREN 1410R. Images d’une guerre sans nom: The Algerian War in Literature and Film.
Not officially acknowledged as a war by France until recently, the Algerian War of independence remains, more than a half-century later, a contested battleground in the French national consciousness. Focusing on depictions of the Algerian War in literature and film we will investigate the many taboos that still endure, most notably around the question of violence and torture, and attempt to reassess the relatively “visibility” of this conflict. Readings will include films by Gilo Pontecorvo, Jean-Luc Godard, Alain Resnais, Agnès Varda, and works by Frantz Fanon, Jean-Paul Sartre, Albert Camus, Benjamin Stora, Claire Etcherelli, Assia Djebar, and Leïla Sebbar. Prerequisite: a course at the 600- or 700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown. Taught in French. Spr FREN1410R S01 25500 W 3:30-5:30(10) (O. Mostefai)
FREN 1410T. L'expérience des réfugiés: déplacements, migrations.
An exploration of the experience of refugees and immigrants with two components. The first component consists of close study of the French context from Decolonization up through the current refugee crisis based on literature, film, the press, and critical essays. The second component of this course will give students the opportunity to work with refugee/recent immigrant communities in Providence. This is a community-engaged course requiring substantial commitment beyond the classroom. Taught in French. Prerequisite: a course at the 0600- or 0700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown.
Fall FREN1410TS01 16512 W 3:00-5:30(17) (V. Krause)

FREN 1510A. Advanced Oral and Written French: Traduction.
An introduction to the theory and practice of translation, this course will be designed to expand students' range and appreciation of written styles and registers and will be based on translation exercises and texts reflecting different types of written and oral communication. Texts will range from literary texts (excerpts from novels, plays, comic books...) to journalistic texts (articles from newspapers...). Class activities will also include comparative studies of translated texts, as well as grammar review and vocabulary work. Course taught in French. Written translations to and from French. Prerequisite: FREN 0600 or equivalent. Enrollment limited to 18. Instructor permission required. WRIT
Spr FREN1510AS01 24758 MWF 10:00-10:50(03) (S. Ravillon)

FREN 1510J. Advanced Oral and Written French: Photographie.
Follows FREN 0600 in the sequence of language courses. Development of oral and written skills via presentation, debate, conversation and discussion on a variety of topics. Through novels, articles, photographs and discussions, this course will explore the world of photography from its beginnings until today. Theory and practice; professionals and amateurs; famous people and paparazzi; photo reportage and photo studio; aesthetic and digital; your own photos, etc. Taught in French. Pre-requisites include FREN 0600 and FREN 0610 and FREN 0620. WRIT
Fall FREN1510JS01 16363 TTh 10:30-11:50(13) (V. Kervennic)

FREN 1710G. L'idée de l'empire dans l'imaginaire français.
From the early nineteenth century to the 1931 Colonial Exposition in Paris and the Algerian Revolution, ideas and debates about slavery, race, and colonialism informed the ways in which French writers and intellectuals thought about empire and its relationship to national identity. This course examines how these debates took shape through contrasting imaginative conceptions of empire from the 1800s until the 1960s, when France lost most of her colonies. How did visions of empire contribute to the formation of French colonial identity, and what kind of purchase do these ideas have on contemporary French cultural and political life? In French. Prerequisite: a course at the 600- or 700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown.
Fall FREN1710GCS01 17036 MWF 2:00-2:50(07) (J. Izzo)

FREN 1900L. French-American (Dis)Connections: histoire, société, culture.
The relationship between France and the United States is one of paradoxes. Since their respective Revolutions, these two countries have displayed profound admiration for each other, but have also experienced moments of deep distrust and hostility. We will first trace the history of political, intellectual, and cultural relations between France and the United States, and then concentrate on several moments and topics from the contemporary period, including multiculturalism, gender and sexuality, popular culture, and ‘French theory.’ Readings and films in English and French; taught in French. For senior French Studies concentrators; instructor permission required for others.
Spr FREN1900LS01 25605 F 3:00-5:30(15) (L. Seifert)

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.

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 section number and CRN to use when registering for this course.
FREN 2190D. Literary Theory of Roland Barthes and Jacques Derrida.
These two thinkers, one from a literary and rhetorical perspective, the other speaking out of philosophy, posed in a persistent and explicit manner during the period 1965-1980 the question of literature. We will study a series of their texts that continue to provide important models for a critical approach to literary writing. Taught in English.
Fall FREN2190DC01 16474 W 3:00-5:30(17) (D. Willis)

FREN 2450. Exchange Scholar Program.
Fall FREN2450 S01 15130 Arranged ‘To Be Arranged’
Spr FREN2450 S01 24074 Arranged ‘To Be Arranged’

FREN 2970. Preliminary Examination Preparation.
For graduate students who have completed their course work and are preparing for a preliminary examination.
Fall FREN2970 S01 15131 Arranged ‘To Be Arranged’
Spr FREN2970 S01 24075 Arranged ‘To Be Arranged’

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.
Fall FREN2990 S01 15132 Arranged ‘To Be Arranged’
Spr FREN2990 S01 24076 Arranged ‘To Be Arranged’

FREN XLIST. Courses of Interest to French Concentrators.

Gender and Sexuality Studies

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
Fall GNSS0120 S01 16910 MWF 1:00-1:50(06) (D. Walker)

This seminar examines problems that arise in marriage from the failures of couples to speak to each other, and when they do, from their failures to speak openly, honestly, and from a position of social equality. We examine from a metaphysical and moral perspective the agency in and as it is reflected in what couples say and think. We look at whether marriages fail when women consciously choose or unconsciously fall into oppression, subordinate postures and examine whether men take advantage of these postures. Class materials will be primarily novels and films, supplemented with philosophical, sociological, and legal essays.
Spr GNSS1711 S01 25478 W 3:00-5:30(10) (P. Foa)
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.

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.

Gender and Sexuality Studies is by its very nature transdisciplinary. Can we speak of a single methodology that ties GNSS together? How might scholars work on gender and/or sexuality while respecting disciplinary boundaries and training? We will start with the premise that studies in gender and sexuality are tied together by critique that questions foundational assumptions and takes account of its own position within a given field of knowledge. By studying canonical theoretical texts alongside disciplinary studies characterized by a feminist and/or queer focus, we will investigate how critique operates and how standards of evidence are marshaled in particular disciplines.

Fall GNSS2000 S01 16939 T 3:00-5:30 (D. Davis)

GNSS 2720. Graduate Independent Study.
Section numbers vary by instructor. Instructor’s permission required.

GNSS XLIST. Courses of Interest to Concentrators in Gender and Sexuality Studies.

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). 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 (science concentrators should take GEOL 0220). Students must register for both components of this course (the lecture and one of the labs) during the same registration session. Enrollment limited to 100.

Spr GEOL0010 S01 24128 MWF 10:00-10:50(03) (R. Cooper)

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 15195 MWF 2:00-2:50(07) (J. Head)

GEOL 0070. Introduction to Oceanography.
Examines the ocean’s role in Earth’s global environment, emphasizing the dynamical interaction of the ocean with the atmosphere, biosphere, cryosphere, and lithosphere. Focus on physical/chemical/biological systems’ interconnections needed to understand natural and anthropogenic variability on various time and space scales, from El Niño to global warming. Three lectures, written exercises on oceanographic problems; two field trips to study estuaries and coastal processes.

Spr GEOL0070 S01 24127 MWF 2:00-2:50(07) (S. Clemens)

GEOL 0220. Physical Processes in Geology.
Introduction to the physical and chemical processes that shape the Earth’s surface, govern the structure of its interior, cause natural hazards and affect the human environment. Topics include interior processes (plate tectonics, mountain building, volcanism, earthquakes, and flow of solid rocks) and environmental processes (climate, atmospheric and oceanic circulation, flow of rivers, glaciers, and groundwater). Four labs and two 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 15197 MWF 11:00-11:50(16) (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.

Labs will meet Tuesdays from 7:00 pm to 9:00 pm.
Spr GEOL0230 S01 25424 TTh 1:00-2:20(08) (A. Saal)

Introduces Earth’s surface environment evolution - climate, 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 0230, or instructor permission. WRIT

Spr GEOL0240 S01 24130 MWF 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. 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.

Fall GEOL0250 S01 16900 MWF 10:00-10:50(14) (C. Huber)

GEOL 0850. 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 the structure and composition of the atmosphere, sources of energy that drive atmospheric processes, weather forecasting, the hydrological cycle, forces that create severe weather, the influence of humans on the atmosphere, and factors that influence climate, climate variability and climate change. Recommend courses or equivalent: MATH 0090, MATH 0100, PHYS 0050. WRIT

Spr GEOL0850 S01 24129 TTh 10:30-11:50(09) (M. Hastings)

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 15198 MWF 2:00-2:50(07) (T. Herbert)
GEOL 1150. Limnology: The Study of Lakes.
This course will provide an interdisciplinary overview of the physics, chemistry, biology, and geography of lakes. Areas of emphasis will include the origin of lake basins, water circulation patterns, heat and water budgets, biogeochemical processes, lake ecosystems, and the stratigraphic record of lakes. We will also discuss human and climatic impacts on lakes. Prerequisites: GEOL 0220 and 0240, or instructor permission. Enrollment limited to 20. WRIT
Spr GEOL1150 S01 25546 MWF 11:00-11:50(04) (J. Russell)

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 Phanerozoic 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 15196 TTh 10:30-11:50(13) (J. Russell)

The goal of this class is to understand the physical principles and processes of the global water cycle. Topics include the climatic importance of water, circulation of atmospheric water vapor, formation of rain and snow, availability of soil water, plant-water relations, mass balance of glaciers, and ongoing and expected changes in the water cycle. Additional goals: become familiar with the current research literature, practice clear and concise science writing, and to use simple programming in Python to plot and analyze actual data sets. Students are expected to have taken at least one geology-related course. Programming experience recommended, but not necessary.
Spr GEOL1310 S01 25548 TTh 9:00-10:20(01) (J. Lee)

GEOL 1320. 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, database development and design, and techniques of spatial analysis are learned. This is an applied course, primarily using ESRI-based geographic information system software. Focal point of class is the completion of student-selected research project employing GIS methods. Enrollment limited to 10 in each section. Permission by an application provided by the instructor (to be requested through email). S/NC.
Fall GEOL1320 S01 16905 Arranged (L. Carlson)
Fall GEOL1320 S02 16906 Arranged (L. Carlson)

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 in digital image analysis, classification, and multi-temporal studies. One field trip to Block Island. Recommended preparation courses: MATH 0090, 0100; PHYS 0060; and background courses in natural sciences.
Spr GEOL1330 S01 25541 MWF 2:00-2:50(07) (J. Mustard)

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 16902 TTh 9:00-10:20(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, biominalization, 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 16480 MWF 10:00-10:50(14) ‘To Be Arranged’

GEOL 1420. Petrology.
Introduction to the origin and evolution of igneous rocks. Topics include: physical properties of magma, thermodynamics and phase equilibria, igneous rocks and their classification, magmatic processes, trace elements and isotopes, basalts and layered intrusions, survey of lunar and planetary petrology. Prerequisites: GEOL 1410, or instructor permission.
Spr GEOL1420 S01 24893 TTh 1:00-2:20(08) (A. Saal)

GEOL 1430. Principles of Planetary Climate.
This course provides the physical building blocks for understanding planetary climate. Topics include thermodynamics applied to planetary atmosphere, basic radiative transfer, energy balance in the atmosphere, and climate variability. In-class exercises and homework problems are designed to strengthen the understanding of basic concepts and to improve problem-solving skills.
Fall GEOL1430 S01 16904 TTh 2:30-3:50(03) (J. Lee)

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 0220 or instructor permission. WRIT
Spr GEOL1450 S01 25543 TTh 10:30-11:50(09) (G. Hirth)

GEOL 1520. Ocean Circulation and Climate.
Examines physical characteristics, processes, and dynamics of the global ocean to understand circulation patterns and how they relate to ocean biology, chemistry, climate change. Assignments address ocean’s role in the climate system; ocean observations and models; the origin, distribution, and dynamics of large-scale ocean circulation and water masses; energy and freshwater budgets; and variability of the coupled system on seasonal to centennial timescales e.g. El Niño. Intended for geological and physical sciences undergraduate and graduate students with quantitative skills and an interest in oceans, climate, paleoclimate. Pre-requisites: GEOL0350 or PHYS0720 or APMA 0340. Offered alternate years, previously offered as GEOL1100. WRIT
Spr GEOL1520 S01 25545 TTh 1:00-2:20(08) (B. Fox-Kemper)

GEOL 1650. Earthquake Seismology.
Topics include: location of earthquakes in space and time; measures of size and intensity of shaking; body waves, surface waves, and free oscillations; structure of the interior of the Earth from wave propagation; earthquake faulting and relationship to tectonic processes. Recommended course: GEOL 0161. Offered in alternate years.
Spr GEOL1650 S01 25544 TTh 10:30-11:50(09) (K. Fischer)

Geologic applications of remotely sensed information derived from interaction of electromagnetic radiation (X-ray, gamma-ray, visible, near-IR, mid-IR, radar) with geologic materials. Applications emphasize remote geochemical analyses for both terrestrial and extraterrestrial environments. Several spectroscopy and image processing labs. GEOL 1410 (Mineralogy), PHYS 0060, or equivalent recommended.
Fall GEOL1710 S01 15199 TTh 1:00-2:20(10) (R. Milliken)
GEOL 1960A. Rheology of the Crust and Mantle. Introduces the principals of rock mechanics and uses them to describe brittle and ductile deformation processes in the crust and mantle. Each topic will review experimental constraints on deformation mechanisms and introduce the theories that support their application to geological conditions. Analyze microstructural observations in real rocks to link what is learned in the lab to what actually is seen in the Earth. Topics to be covered include: brittle fracture and crack propagation, frictional sliding, the brittle/plastic transition, viscous deformation mechanisms, microstructural analysis of deformed rocks, and the scaling and extrapolation of laboratory flow laws. The class will also feature a field trip to well-exposed crustal faults and shear zones. Several class periods and a class project will focus on microstructural observations of rocks collected during the field trip. Pre-requisite: GEOL 1450 or permission of instructor. Enrollment limited to 20.

Fall GEOL1960A S01 16901 TTh 2:30-3:50(03) (G. Hirth)

GEOL 1970. Individual Study of Geologic Problems. 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.

Fall GEOL1970 S02 16898 TTh 2:30-3:50(03) (S. Parman)

GEOL 2330. Advanced Remote Sensing. 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 16899 TTh 2:30-3:50(03) (J. Mustard)

GEOL 2430. Igneous Petrology. Study of mineral equilibria in igneous rocks in relation to theoretical and experimental studies in silicate systems. Principles of the origin and evolution of igneous rocks in space and time. Offered alternate years. Fall GEOL2430 S01 16897 TTh 2:30-3:50(03) (S. Parman)

GEOL 2450. Exchange Scholar Program.

GEOL 2460. Phase Equilibria. Principles of thermodynamics and phase equilibria in unary, binary, ternary, and multicomponent systems using analytical and graphical methods. Other topics include: solution theory, equations of state, and thermodynamics of surfaces. Spr GEOL2460 S01 25423 MWF 10:00-10:50(03) (R. Cooper)

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 16895 TTh 1:00-2:20(10) (A. Saa)

GEOL 2870. Planetary Evolution – Origin/Evolution of the Moon: Touchstone for Understanding Planets. The Moon forms a fundamental baseline for our understanding of the origin of planets and their early evolution, in terms of primary and secondary crustal formation, core and mantle formation and evolution, magnetism, impact basins, and global tectonics. A major goal of this course is to identify major outstanding questions and scientific and exploration goals for future robotic and human exploration missions to the Moon. Sponsored by NASA SSERVI, the lecture series is jointly organized by SSERVI teams at Brown University and the Lunar and Planetary Institute in Houston with many affiliated SSERVI institutes participating. Fall GEOL2870 S01 16340 W 3:00-5:30(17) (J. Head) Spr GEOL2870 S01 25426 W 3:00-5:30(10) (J. Head)

GEOL 2880. Planetary Cratering. Impact cratering is arguably the most pervasive geologic process in the solar system. This course will study the physical process of impact cratering and its place in planetary science. The course will take a process oriented approach to understanding impact cratering with firm foundations in geologic observation and impact experiments. To explore the extreme process of impact cratering, we will use continuum/rock mechanics, thermodynamics, numerical modeling, experiments, and observations. Principal topics will include the formation of craters from contact of the projectile to final crater morphology; shock metamorphism; impact ejecta and products; cratered terrains; impacts and planetary evolution; and impact hazards. Spr GEOL2880 S01 24131 TTh 10:30-11:50(09) (B. Johnson)

GEOL 2920E. Introduction to Organic Geochemistry. Mainly literature critiques and seminars, supplemented by introductory lectures. Topics include organic biomarkers, analytical methodologies, natural macromolecules, stable isotope ratios of biomarkers, application of organic geochemistry in studies of climatic and environmental change, fossil fuel exploration, and applied environmental research. Spr GEOL2920E S01 25547 TTh 10:30-11:50(09) (Y. Huang)

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 GEOL2920N S01 25425 M 3:00-5:30(13) (J. Head)

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.

Fall GEOL2990 S01 15133 Arranged "To Be Arranged"
Spr GEOL2990 S01 24077 Arranged "To Be Arranged"

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 16382 MWF 9:00-9:50(01) (J. Sokolosky)
Fall GRMN0100 S01 16382 T 12:00-12:50(01) (J. Sokolosky)
Fall GRMN0100 S02 16383 MWF 11:00-11:50(16) (J. Sokolosky)
Fall GRMN0100 S02 16383 T 12:00-12:50(16) (J. Sokolosky)
Fall GRMN0100 S03 16384 MWF 12:00-12:50(12) (J. Sokolosky)
Fall GRMN0100 S03 16384 T 12:00-12:50(12) (J. Sokolosky)
Fall GRMN0100 S04 16385 T 12:00-12:50(06) (J. Sokolosky)
Fall GRMN0100 S04 16385 MWF 1:00-1:50(06) (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 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.
Spr GRMN0200 S01 24779 MWF 9:00-9:50(02) (J. Sokolosky)
Spr GRMN0200 S02 24770 MWF 12:00-12:50(02) (J. Sokolosky)
Spr GRMN0200 S03 24780 MWF 11:00-11:50(04) (J. Sokolosky)
Spr GRMN0200 S04 24780 T 12:00-12:50(04) (J. Sokolosky)
Spr GRMN0200 S05 24781 MWF 12:00-12:50(05) (J. Sokolosky)
Spr GRMN0200 S06 24781 T 12:00-12:50(05) (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 16386 MWF 10:00-10:50(14) (J. Sokolosky)
Fall GRMN0300 S02 16386 Th 12:00-12:50(14) (J. Sokolosky)
Fall GRMN0300 S02 16387 Th 12:00-12:50(06) (J. Sokolosky)
Fall GRMN0300 S02 16387 MWF 1:00-1:50(06) (J. Sokolosky)

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 24782 MWF 10:00-10:50(03) (J. Sokolosky)
Spr GRMN0400 S01 24782 Th 12:00-12:50(03) (J. Sokolosky)
Spr GRMN0400 S02 24783 Th 12:00-12:50(06) (J. Sokolosky)
Spr GRMN0400 S02 24783 MWF 1:00-1:50(06) (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 GRMN0500S S01 16791 MWF 11:00-11:50(16) (K. Mendicino)

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 GRMN0600S S01 24874 MWF 10:00-10:50(03) (T. Kniesche)

GRMN 0750E. Reading Film: An Introduction to German Cinema.
What is it that fascinates us about cinema? What desires and drives have held us in thrall to the moving image? This seminar introduces you to writing about film, not just within the specific field of media studies but within the humanities as a whole. We will examine 12 filmic examples (ranging from early silent film to contemporary popular cinema) alongside a selection of theoretical and historical readings. The course will impart the basic skills needed to write in a critical, reflective, and rigorous way about film. For those interested in film in the context of any humanities field. Enrollment limited to 19 first year students. FYS WRIT
Spr GRMN0750S S01 24860 TTh 2:30-3:50(11) (Z. Sng)

GRMN 1200L. What is an Image? German Aesthetics and Art from Lessing to Heidegger.
A survey of some of the most important German-language contributions to theories of art, alongside a discussion of some major art-works from the German tradition. Authors include Lessing, Kant, Schiller, Hegel, Nietzsche, Benjamin, Adorno, and Heidegger. Emphasis will be on how aesthetics intersects with literary theory and the idea of critique, and also how it contributes to discussions about knowledge, subjectivity, and power. All readings in English translation. In English.
Fall GRMN1200L S01 16968 TTh 1:00-2:20(10) (Z. Sng)

GRMN 1200Q. Füllwort Sprache.
Fillers abound in everyday speech. Even while they are considered “empty” in and of themselves, they are meant to “fill” or bridge a gap without saying anything particularly meaningful. They are an awkward pause, a moment of silence, a standstill that interrupts the flow of speech. The seminar will explore both the ubiquity and strange character of these inconspicuous para-linguistic particles in texts by Georg Büchner, Franz Kafka, Paul Celan, Hannah Arendt, and others. Taught in German.
Spr GRMN1200Q S01 25358 TTh 10:30-11:50(09) (T. Schestag)

GRMN 1200R. Musil. Der Mann ohne Eigenschaften.
“When we see our Great Authors carefully sizing up this situation and doing their best to mold it into an image of an alert population and honoring its great personalities, shall we not be grateful to them?” asks Robert Musil in The Man Without Qualities, which has often been named among the greatest novels of twentieth-century modernism. Musil, however, places such qualifications in question, and thus poses a radical challenge to every ethos of “greatness,” from “Great Authors,” to the authorities promoting “Greater Germany” during National Socialism. This course is devoted to reading and analyzing Musil’s novel. In German.
Fall GRMN1200R S01 16876 W 3:00-5:30(17) (K. Mendicino)

GRMN 1340T. Thinking of Thinking: Conscious Phenomena in 20th Century Writing.
Around 1900, Sigmund Freud and Edmund Husserl published path-breaking studies that opened radical ways to rethink thinking. Freud’s Interpretation of Dreams appears to translate the unconscious expressions of wish-fulfillment, and testifies to the inexpressible poetic resources of the mind beyond its ken. Husserl’s “Logical Investigations” departs from a redefinition of expression and meaning, and calls for a fundamental reexamination of the experiential bases of logic and language. This course will be devoted to an engagement with their writings, as well as texts by their major readers, including Paul Celan, Jacques Derrida, Franz Kafka and Samuel Beckett. In English.
Spr GRMN1340T S01 25408 TTh 1:00-2:20(08) (K. Mendicino)

GRMN 1440Z. Gespräche.
When we are in dialogue, talking and listening to one another, language is not simply the medium of linguistic exchange, it is also exposed to unexpected encounters. This seminar explores what can happen in the course of such encounters by looking at Socratic dialogues (Plato); dialogues between animals (Aesop, Lessing), and dialogues of the dead (Lucian), dialogues in spiritistic settings (Kafka); dialogues on dialogues (Schlegel); failed dialogues (Hebel); dialogues in and between poems (Hölderlin, Brecht, Celan); phone conversations (Valentin); interrogations (Brecht, testifying before the House of Unamerican Activities); interviews (Arendt, Gaus); and filmed encounters (Kluge, Heiner Müller, Genet). In German.
Fall GRMN1440Z S01 16847 TTh 10:30-11:50(13) (T. Schestag)

GRMN 1441B. The Awful German Language.
German (not unlike others) is a foreign language. As such, it embodies oddities and barbarisms, provoking both interest and fascination, trembling and fear, from “native” speakers of other (foreign) languages. Yet, even for “native” speakers of German the language is not simply a given, but (at times) a threat (and under threat), an infinite (historical) task, a political-linguistic phantasm, a projection screen, a love affair, a traumatic experience. This undergraduate seminar will explore complaints and concerns, from inside as well as from outside the German language, by Tacitus, Kleist, Twain, Hölderlin, Hebel, Kafka, Benjamin, Adorno, Pastior. Taught in English.
Spr GRMN1441B S01 25364 TTh 4:00-5:30 (T. Schestag)
**GRMN 1900L. Deutsche Gegenwartsliteratur und der Literaturbetrieb.**
In contemporary literature, a multimedia array of literary institutions, what is called der Literaturbetrieb in German, is needed to guide a text through the fields of creation, production, and reception, among them programs for professional writing, authors, literary agents, editors, publishing houses, translators, events, literary prizes, literary critics, bookstores, and theaters. In addition to studying these institutions, we will read literary texts by Heinrich Böll, Martin Walser, Ulrich Woek, Thomas Glavinic, and others that focus on the Literaturbetrieb. Students taking this class will be expected to participate in a study tour to Germany during spring break. In German.

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**GRMN 1970. Independent Study.**
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 2450. Exchange Scholar Program.**
For graduate students who have met the tuition requirement and are paying the Registration Fee to continue active enrollment while preparing a thesis. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website.

**GRMN 2461N. Paul Celan and his Readers.**
This graduate seminar will be devoted to encountering the oeuvre of Paul Celan through careful readings of his poems, prose, speeches, and translations, as well as through sustained engagements with several of his most careful readers, including Jacques Derrida, Werner Hamacher, Philippe Lacoue-Labarthe, and Peter Szondi. Texts in English, French, and German. Taught in English. Participants from different fields of interest are welcome.

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**GRMN 2661M. Kästchen, Kisten, Krypten / Caskets, Cases, Crypts.**
The belief in a strict distinction between form and content features prominently in most accepted understandings of language and words. Words are considered containers that are to be emptied or filled. Focusing on this motif and exploring its various figurations (caskets, boxes, cases, and crypts) in literary, philosophical, and psychoanalytical texts, this graduate seminar will question this assumption. Authors read in the course of the semester include Shakespeare, Goethe, Poe, Baudelaire, Freud, Benjamin, Abraham/Torok, and Derrida. Texts in English, French, and German. Taught in English. Participants from different fields of interest are welcome.

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**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.

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**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.

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**GRMN XLIST. Courses of Interest to Students Concentrating in German Studies.**

**Swedish**

**SWED 0300. Intermediate Swedish I.**
Continuing Swedish.

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**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.

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**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 SAT II 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, reading 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.

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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. 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.

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.

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.

HISP 0490A. Spanish for Health Care Workers.
This course is designed to provide students with the linguistic and cultural competencies necessary to communicate with and help treat Spanish speaking patients with limited English. The course includes a general review of pertinent grammar and vocabulary relating to the health care professions, assessment, and vocabulary useful for establishing patient rapport. Students will practice communicating in common medical situations, conducting patient interviews, and increase their understanding of possible responses from patients. We will broaden knowledge of different cultures, explore health care systems/ professions in a variety of settings, and have pertinent speakers invited to class. Please note this course does not qualify as a pre-requisite for study abroad or for HISP 0500. Students who complete 0490A successfully can continue in our program with HISP 0500 as the next level.
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 5 in language or literature. Please check Hispanic Studies website (Undergraduate Programs) for course descriptions and placement information. Enrollment limited to 18. Pre-enrolled students should contact their study advisor for course placement. 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 DPLL

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: HISP 0500 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.

HISP 0710E. Introduction to Professional Translation and Interpretation.
What is translation? Interpretation? What roles do the translator and interpreter play in communication? What skills and kinds of knowledge are needed to develop competency in translation and interpretation as professional services? What factors shape how a text is translated (e.g., purpose, intended audience, genre)? This course takes a functionalist approach to professional translation and interpretation in Spanish and English, especially within the context of healthcare. Through readings, translation assignments, and in-class exercises, students will develop competency in the linguistic, cultural, technical dimensions of translation and interpretation. They will also gain practical experience working with Spanish-speaking clinics and community organizations.

HISP 0730. Encounters: Latin America in Its Literature and Culture.
An introduction to major authors, movements, and themes of Spanish American 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 DPLL

HISP 0740. Intensive Survey of Spanish Literature.
This course provides students an overview of the major authors and movements in Spain's literature from the Middle Ages to the twentieth century. It teaches students to close-read and engage critically with individual texts and their literary, historical, and social conditions of production. Throughout, we will interrogate canon formation, examine the literary construction of the self and the nation, and analyze the reflection – and creation – of culture in literature. Conducted 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

HISP 0750B. The Latin American Diaspora in the US.
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.

HISP 0750E. Topics in Hispanic Culture and Civilization.
This course provides an overview of the history of Spain from medieval times to the present, drawing from literature, art, music, and film. We will study Islamic al-Andalus, Judeo-Spanish culture (including the Sephardic diaspora), Christian Spain, the conquest and colonization of the "New World," the decline of empire, the Civil War and its aftermath. Historical and cultural connections between Spain and Europe, and Spain and America will also be examined. Taught in Spanish. Prerequisite: HISP 0600 or placement: SAT II scores of over 750, 5 in AP Literature or 551 and over in the Brown Placement Exam.

HISP 0750P. Contemporary Social Justice Cinema of the Spanish-Speaking World.
This course engages students with social justice issues in the Spanish-speaking world (the US, Latin America, and Spain) from multiple perspectives. It analyzes recent films addressing topics including: racial, gender, and sexual identities; socioeconomic (in)equality; immigration, the border, and displacement; social conflict, discrimination, and their aftermath; the environment and climate change; postcolonial legacies and the impact of neoliberalism and globalization. We will analyze the stories these films tell and how they tell them, asking whether film can be considered an activist project, and what effect it might have on legal, political, and social debates outside the walls of the cinema. Conducted in English, though students may elect to complete written assignments in Spanish.

Fall HISP0710E S01 16466 TTh 1:00-2:20(10) (N. Schuhmacher)

Fall HISP0600 S01 16016 MW 9:00-9:50(02) (N. Schuhmacher)
Fall HISP0600 S01 16016 TTh 9:00-10:20(02) (N. Schuhmacher)
Fall HISP0600 S02 16017 MW 10:00-10:50(13) (N. Schuhmacher)
Fall HISP0600 S02 16017 TTh 10:30-11:50(13) (N. Schuhmacher)
Fall HISP0600 S03 16018 MW 2:00-2:50(03) (N. Schuhmacher)
Fall HISP0600 S03 16018 TTh 2:30-3:50(03) (N. Schuhmacher)
Fall HISP0600 S04 16019 MW 1:00-1:50(10) (N. Schuhmacher)
Fall HISP0600 S04 16019 TTh 1:00-2:20(10) (N. Schuhmacher)
Spr HISP0600 S01 24811 MW 9:00-9:50(01) (N. Schuhmacher)
Spr HISP0600 S01 24811 TTh 9:00-10:20(01) (N. Schuhmacher)
Spr HISP0600 S02 24812 MW 10:00-10:50(09) (N. Schuhmacher)
Spr HISP0600 S02 24812 TTh 10:30-11:50(09) (N. Schuhmacher)
Spr HISP0600 S03 24813 MW 2:00-2:50(11) (N. Schuhmacher)
Spr HISP0600 S03 24813 TTh 2:30-3:50(11) (N. Schuhmacher)

Fall HISP07040 S01 16401 TTh 9:00-10:20(02) (S. Thomas)

Fall HISP0600 S01 16021 MW 11:00-11:50(16) (E. Gomez Garcia)
Fall HISP0600 S02 16022 MW 12:00-12:50(12) (E. Gomez Garcia)
Fall HISP0600 S03 16023 MW 1:00-1:50(06) (E. Gomez Garcia)
Fall HISP0600 S04 16024 MW 2:00-2:50(07) (E. Gomez Garcia)
Fall HISP0600 S05 16025 MW 12:00-12:50(12) (E. Gomez Garcia)
Spr HISP0600 S01 24814 MW 9:00-9:50(02) (E. Gomez Garcia)
Spr HISP0600 S02 24815 MW 10:00-10:50(03) (E. Gomez Garcia)
Spr HISP0600 S03 24816 MW 11:00-11:50(04) (E. Gomez Garcia)
Spr HISP0600 S04 24817 MW 12:00-12:50(05) (E. Gomez Garcia)
Spr HISP0600 S05 24818 MW 1:00-1:50(06) (E. Gomez Garcia)
HISP 0750Q. Health, Illness and Medicine in Spanish American Literature and Film.
In this class we will read/see, discuss and write about texts and films that deal with health, illness, death and medicine in primarily Spanish American contexts. Our approach will be informed by principals of Narrative Medicine that demonstrate how attending to, representing, and affiliating oneself with other human beings by studying literature and the arts can transform relationships between patients and healthcare professionals. We will be honing our reading and analytic skills as we confront the subjective dimensions of illness and medicine from humanistic and cross-cultural perspectives. IN SPANISH.
Spr HISP0750Q S01 24819 MWF 11:00-11:50(04) (J. Kuhnheim)

HISP 0750R. Mexico: An Introduction to Its History and Culture.
This course will take an interdisciplinary approach to studying the rich history of Mexico and its diverse populations. We will examine both how Mexico has constructed its own identity from within (for example, the 20th century explorations of “lo mexicano”). In addition, we will study how Mexico has been constructed from without, especially from the English-speaking world (for instance, American diplomat Joel Poinsett’s 19th century views). Course materials will range from both Mexican and European chronicles of conquest to modern reflections and representations by historians, philosophers, filmmakers, musicians, writers, and artists, among others. In English.
Fall HISP0750R S01 17046 MWF 2:00-2:50(07) (L. Estrada Orozco)

HISP 0760. Transatlantic Crossings: Readings in Hispanic Literatures
This course provides students a comprehensive introduction to literature and culture of the Spanish-speaking world, through exploration of a wide range of genres (short story, poetry, theater, novel, and film) and periods of production. The course not only gives students a contextualized historical panorama of literature in Spanish, it also equips them with strategies for reading, thinking, and writing about texts and films in Spanish, preparing them for more advanced literature and culture courses in Hispanic Studies. The course is conducted entirely in Spanish. WRIT
Spr HISP0760 S01 24823 MWF 12:00-12:50(05) ‘To Be Arranged’

HISP 1210E. History of Romance Languages.
The Romance family is one of the most widely-spoken and politically important language families. The aim of this course is to introduce students to the history and linguistic characteristics of the Romance family. Our purpose is to learn the factors that led to the development of modern standard Romance languages, and provide an understanding of Romance structures and their linguistic relationships. The course covers languages families; genetic relationships (family trees); typological comparison; internal versus external history; language contact and borrowing; Romance Pidgins and Creoles; Standard language versus dialect; social variation; concepts of Phonetics and Phonology; Morphology; Syntax; Semantics; Lexicon. In English.
Fall HISP1210E S01 17059 TTh 10:30-11:50(13) (M. Vaquero)

HISP 1240L. Don Quijote de la Mancha.
This course will study Miguel de Cervantes’s El ingenioso hidalgo don Quijote de la Mancha in its literary and historical contexts. We will read Cervantes’s masterpiece as a book about books and about the pleasures and dangers of reading; as a story of the Spanish empire and its discontents; as a palimpsest of Christian, Muslim, and Jewish meetings in Spain; and as a reflection on the nature of language, desire, and madness. All the while, we will read Don Quijote as an eminently entertaining and endlessly engaging work of the human imagination. In Spanish.
Spr HISP1240L S01 25194 TTh 2:30-3:50(11) (L. Bass)

Despite its origins in Don Quijote and its European prehistory, the Spanish novel appears as a new genre in the 19th century, when it works to redefine the national literary canon and elaborate a new aesthetic norm. We study its development throughout the century, from the early romantic historical novel, through the mid-century bourgeois novel, and later realism and naturalism. Prerequisite: HISP 0730 or 0740.
Fall HISP1260B S01 16404 TTh 2:30-3:50(03) ‘To Be Arranged’

HISP 1290G. Generación del ‘98.
To what extent does a national crisis, the Spanish defeat of 1899 by the United States, provoke a movement of patriotic revaluation, the so-called “Generación of ‘98”? Or are the symptoms of crisis more in accord with fin de siècle aesthetics, which incites literary experimentation in all the traditional genres? These crucial questions will be studied in such typical authors as Unamuno, Baroja, Azorin, Antonio Machado, and Ramón del Valle-Inclán.
Fall HISP1290G S01 16415 TTh 9:00-10:20(02) ‘To Be Arranged’

HISP 1290J. Spain on Screen: 80 Years of Spanish Cinema.
This course traces major developments in Spanish cinema, from silent films of the 1930s to globalized commercial cinema of the 21st century. In this 80-year period, Spain has undergone sweeping political, social, economic, and cultural changes, many of which we see reflected in its cinema. By critically examining films by Spain’s most well-known and influential directors – Rey, Berlanga, Bufuel, Bardem, Saura, Erice, Almodóvar – as well as less canonical filmmakers, we will ask what representations of Spain we see on screen in the last eight decades, interrogating notions of nation, race, class, gender, sexuality, and political ideology, among others. Prerequisites: HISP 0730 or 0740, WRIT
Spring HISP1290J S01 24826 TTh 9:00-10:20(01) (S. Thomas)

HISP 1330Q. Short Forms: Major Works in a Minor Key.
This course will explore short masterworks by major Latin American writers of the twentieth century and beyond (Borges, Onetti, Cortázár, García Márquez, Bolaño, Aíra, Zambra and others) alongside some of their major influences (e.g. Poe, Conan Doyle, Hemingway, Faulkner), with side-trips into the work of contemporary writers on whom they leave their own imprint. Readings will primarily involve short stories, but will also include novellas, poems, films, visual art, and music. Reading in Spanish, with discussion in English.
Fall HISP1330Q S01 16564 MWF 1:00-1:50(06) (M. Clayton)

HISP 1331A. Writing Animals in the Iberian Atlantic.
Animals are our mirrors, our doubles; creatures onto which we project our notions about humanity and its limits. From Aristotle’s ladder to Mesoamerican nahualism, animals have been at the center of how we understand the world and our place in it. This course looks at Animal Studies in dialogue with Hispanic, Latin American and Indigenous Studies to explore how intersectionality illuminates discourses about the human-nonhuman divide. Drawing on studies from both sides of the Atlantic, we will analyze the main genres that have focused on the nonhuman and recent studies on sheep, pigs, the rhinoceros, llamas, and perhaps even hummingbirds.
Spr HISP1331A S01 25014 MWF 10:00-10:50(03) (L. Montero)

This course, with readings in English and Spanish, analyzes the representation of the precarious in Hispanic social experience. We’ll cover current issues as representations of climate change and environmental catastrophes in Mexico, Peru and Puerto Rico; political nationalism as well as ethnic rebellions (e.g., by the Chilean Mapuche and the indigenous communities of Chiapas);women’s rights (Ni Una Más); as well as migration and "bad hombres”. Some specialists in communication and border issues will be invited to share their research. Students from Mexico, Puerto Rico and Cuba will discuss their experiences, as well as writers and colleagues working on these issues.
Spr HISP1331C S01 25195 MWF 3:00-5:30(15) (J. Ortega)

HISP 1370E. La creatividad en América Latina.
Varias teorías actuales sobre la creatividad se ilustran muy bien con relatos, poemas, películas, música y arte de América Latina gracias a su adaptación de materiales, diversidad de formas, y gusto por la mezcla. Revisaremos las poéticas del dadaísmo, el surrealismo, la literatura fantástica, el realismo mágico, la biografí imaginaria, el utopismo, y el juego verbal. La clase será visitada por algunos autores para discutir sus procesos creativos.
Fall HISP1370E S01 16405 Th 4:00-6:30(04) (J. Ortega)
HISP 1370V. Mujeres Malas.
This seminar will analyze the notion of "bad women" in Pre-modern and Latin American Literature and visual texts. Perception, representation, and stereotyping of these women, both historical and fictional, as Mad, Witch, Femme fatal, Hysterical, and Crazy, will allow us to follow the ideological narrative that produced these characters. Some of them are based on medical, primitive, political, and even psychoanalytic conceptions. We will discuss the primitive Castilian epic cycle, Celestina, Carmen, the novel and the opera; Malinche, Cortés' translator in the conquest of Mexico; and novels and short stories from contemporary authors as well as Luis Buñuel' films. Prerequisite: HISP 0730 or 0740.
Spr HISP1370V S01 24825 TTh 10:30-11:50(09) (M. Vaquero)

HISP 1700B. Rhythm and Silence: A Creative Writing Workshop.
The course focuses on learning the craft of creative writing in Spanish across genres. We will study underlying principles of writing through lectures, readings, discussions, and exercises. As we reflect upon the creative process, we will examine the relationship between author and text and explore narrative techniques used to construct complex characters, dialogue, and imagery. The object will be to expand our creative writing skills and discuss the works of influential contemporary Latin American authors such as Jorge-Luis Borges, Alejo Carpentier, Angelina Muñiz-Huberman, Elena Poniatowska, Ernesto Sabato, Juan Rufó, and Cesar Vallejo. WRIT DPLL
Spr HISP1700B S01 25145 MWF 9:00-9:50(02) (L. Estrada Orozco)

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

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HISP 2030C. Medieval Masterpieces.
Examines three medieval Spanish masterpieces: Cantar de Mio Cid, Libro de buen amor, and Celestina. Other works are read to explore lines of continuity and discontinuity in these three works and their respective genres.
Fall HISP2030C S01 16419 M 3:00-5:30(05) (M. Vaquero)

HISP 2160G. Don Quijote: Contexts and Constructions.
This seminar offers an in-depth study of El ingenioso hidalgo Don Quijote de la Mancha in its "own right" and through an exploration of its afterlives (editions, translations, interpretations, imitations). On the one hand, we will examine the novel in its narrative complexity and engagement with early modern Spanish literature and history. On the other, we will trace its modern critical reception, with particular focus on its paradoxical canonization both as a "universal" masterpiece and a cornerstone of continuity and discontinuity in these three works and their respective genres.
Fall HISP2160G S01 16565 Th 4:00-6:30(04) (L. Bass)

HISP 2250B. Galdós and the Nineteenth-Century Spanish Literary Field.
Literary history knows Benito Pérez Galdós as the initiator of the modern Spanish novel. Through analysis of Galdós's theoretical and literary texts, we will explore this claim in relation to the preceding state of the novel, to the author's relationship with contemporary writers, and to his own work in other genres, to assess his contribution to the evolution of the figure of the writer, and of the Spanish literary field.
Spr HISP2250B S01 25375 M 3:00-5:30(13) "To Be Arranged"

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 16417 W 3:00-5:30(17) (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 study course examining the role of wonder in New World historiographic and literary writings of the 16th and 17th centuries.
Fall HISP2350H S01 16416 F 3:00-5:30(11) (S. Merrim)

HISP 2350W. The Contemporary Scene.
Taking its cue from José Carlos Mariátegui's 1925 essay collection La escena contemporánea, this seminar delves into the idea of the contemporary as an open period of experiment involving the enmeshment of various spheres: the literary, the visual, the political, and the theatrical. Opening a series of windows onto various forms of production -literature, film, performance, museum exhibitions, criticism-we will explore the peculiar forms of temporality and spatiality at work in contemporary Latin American literature and its adjacent spheres. Writers will include César Aira, Samanta Schweblin, Pedro Mairal, Alejandro Zambra, Yuri Herrera, Valeria Luiselli, and Fernanda Melchor.
Spr HISP2350W S01 25550 W 3:00-5:30(10) (M. Clayton)

HISP 2450. Exchange Scholar Program.

HISP 2520Q. Nación, insularismo e identidad en el Caribe hispano.
This course traces the emergence and evolution of nationalist expression in literary and political texts from Cuba, Puerto Rico and the Dominican Republic. Beginning with early anti-colonial and nation-building writing, we focus particularly on the idea of the island in articulations of national culture. We address key figures in the intellectual history of the Caribbean; essays, novels and poetry from the nineteenth-century to the twenty-first; and recent critical and theoretical work on the Spanish Caribbean. Weekly topics include the intersection of race and nationalism; exile and migration; and transnational ties to the broader Caribbean, the U.S. and Latin America.
Spr HISP2520Q S01 25345 F 1:00-3:30 (E. Whitfield)

HISP 2620O. Authorship and Authoritarianism in Spain and Latin America.
This course examines responses to authoritarianism in contemporary Spanish and Latin American literature, using the particular cases of recent dictatorships in Spain (Francisco Franco, 1939-1975) and Chile (Augusto Pinochet, 1973-1990) as a focus. Alongside novels and a play dealing with dictatorship and its aftermath, we will read theoretical texts that offer varied approaches to history, literature, aesthetics, and politics. Throughout, we will examine the complex relationship between authority, authoritarianism, and authorship in the twentieth and twenty-first centuries, asking how dictatorship is (not) narrated and how we can read narratives emerging from contexts of repression and state terror. In Spanish.
Spr HISP2620O S01 25685 Th 4:00-6:30(17) (S. Thomas)

HISP 2790. 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.
Fall HISP2790 S01 15143 Arranged "To Be Arranged"
Spr HISP2790 S01 24086 Arranged "To Be Arranged"

HISP 2890. 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 2970. 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.
Fall HISP2970 S01 15144 Arranged "To Be Arranged"
Spr HISP2970 S01 24087 Arranged "To Be Arranged"

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.

Brown University
HISP XLIST. Courses of Interest to Concentrators in Hispanic Studies.

History

HIST 0150A. History of Capitalism.
Capitalism didn’t just spring from the brain of Adam Smith. Its logic is not encoded on human DNA, and its practices are not the inevitable outcome of supply and demand. So how did capitalism become the dominant economic system of the modern world? History can provide an answer by exploring the interaction of culture and politics, technology and enterprise, and opportunity and exploitation from the era of the Atlantic Slave Trade to the 2008 Financial Crisis. HIST 0150 courses introduce students to methods of historical analysis, interpretation, and argument. This class presumes no economics background, nor previous history courses.

Fall HIST0150A S01 15396 MWF 10:00-10:50(14) (S. Rockman)

A long history lies behind the millions of men and women locked up today as prisoners, captives and hostages. Beginning in antiquity and ending in the present, this course draws on materials from a variety of cultures across the world to explore incarceration’s centuries-old past. In examining the experience and meaning of imprisonment, whether as judicial punishment, political repression, or the fallout of war, the class will ask fundamental questions about liberty as well. History 150 courses introduce students to methods of historical analysis, interpretation and argumentation. This course presumes no previous history courses.

Fall HIST0150C S01 15413 TTh 1:00-2:20(10) (A. Remensnyder)

HIST 0150D. Refugees: A Twentieth-Century History.
Refugees are arguably the most important social, political and legal category of the twentieth century. This introductory lecture course locates the emergence of the figure of the refugee in histories of border-making, nation-state formation and political conflicts across the twentieth century to understand how displacement and humanitarianism came to be organized as international responses to forms of exclusion, war, disaster and inequality.

Spr HIST0150D S01 24644 MWF 1:00-1:50(06) (V. Zamindar)

HIST 0150F. Pirates.
As long as ships have sailed, pirates have preyed upon them. This course examines piracy from ancient times to present, from the Mediterranean Sea to the Indian Ocean and the Caribbean. We will explore questions: How did piracy evolve over time? Where, why, and how did people become pirates, and what (if anything) made them different from other seafarers? How is piracy related to other historical processes, notably imperialism and nation-building? What explains the resurgence of piracy in the twenty-first century? Why have pirates become the stuff of legend, and how accurately are they portrayed in books and films?

Spr HIST0150F S01 25607 MWF 11:00-11:50(04) (R. Cope)

HIST 0150H. Foods and Drugs in History.
What we consume connects us to the worlds of both nature and culture. Bodily and socially, "you are what you eat," but if your well-being suffers, you often seek out other ingestible substances. In many times and places, changing what you eat is thought to be healing, while in other times and places drugs — either remedial or recreational — are thought to be distinct and more immediately restorative. Few human interactions with the larger world are more important or interesting than how consumables and medicines have been discovered, mixed, transformed, distributed, and how those processes have changed us. WRIT

Fall HIST0150H S01 15415 TTh 2:30-3:50(03) (H. Cook)

HIST 0202. African Experiences of Empire.
This is a "flipped" course on sub-Saharan Africa from the mid-nineteenth through the mid-twentieth centuries. It presupposes no knowledge of Africa and serves as an introduction to the continent. It focuses on daily life, families, and popular culture. Students will analyze change, question perspectives, and imagine life, and question what "Africa" was during the period of European imperialism. Most readings are primary sources, which include photographs, songs, and oral histories. The course is "flipped," students' first introduction to the content comes before class meetings through the text and multi-media sources. Class meetings are dedicated to discussion and exercises, including role-playing.

Fall HIST0202 S01 15443 MWF 11:00-11:50(16) (N. Jacobs)

HIST 0203. Modern Africa: From Empire to Nation-State.
This course examines the major historical developments in Africa from 1945 to the present and pays special attention to the diversity of experiences within the vast continent. The first part focuses on Africans' varied responses to the waning European imperial project and explores different ways in which African nationalist leaders and everyday people challenged colonial administrations to ultimately achieve their independence. The second part of the class investigates the consequences and opportunities of decolonization, including questions of political legitimacy, state-building, structural adjustment programs and international aid, human rights, and civil conflicts.

Fall HIST0203 S01 24577 TTh 1:00-2:20(08) (J. Johnson)

HIST 0232. Clash of Empires in Latin America.
Examines Latin America as the scene of international rivalry from the 16th to the 19th century. Topics include comparative colonization, the transatlantic slave trade, privateering and piracy in the Caribbean, and the creation of an "Atlantic world." P

Fall HIST0232 S01 15398 MWF 11:00-11:50(16) (R. Cope)

HIST 0234. Modern Latin America.
This course is an introduction to the history of modern Latin America. Through lectures, discussions, shared readings, we will explore major themes in the past two hundred years of Latin American history, from the early nineteenth-century independence movements to the recent “Left Turn” in Latin American politics. Some of the topics we will examine include the racial politics of state-formation; the fraught history of U.S.-Latin American relations; the cultural politics of nationalism; how modernity was defined in relation to gender and sexuality; and the emergence of authoritarian regimes and revolutionary mobilizations, and the role of religion in shaping these processes.

Spr HIST0234 S01 25175 MWF 10:00-10:50(03) (D. Rodriguez)

HIST 0243. Modern Middle East Roots: 1492 to the Present.
The goal of this course is to provide students with a broad overview of Modern Middle Eastern history. Following the expulsion of the Moors and Jews of Iberia, we journey to the opposite end of the Mediterranean with continued Turkic expansions into southeastern Europe, the Arab world, and Iran. Then, the "long" nineteenth century: an era of profound transformation culminating in the Ottoman Empire’s partition, primarily by British and French colonial rule. Finally, we explore forces shaping the twentieth century Middle East, from nationalism to oil, Islamism to "street" politics, and military interventions by the US, USSR, and regional powers.

Fall HIST0243 S01 15445 TTh 10:30-11:50(13) (F. Ahmed)

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

Fall HIST0250 S01 15400 MWF 12:00-12:50(12) (M. Vorenberg)
HIST 0252. The American Civil War.
An examination of the American Civil War and related topics in international law, international relations, and popular culture (this is not purely a course on military history). Students will learn about the American Civil War in a global context while also learning to analyze documents of different genres; and learning to make optimal use of online databases. The course assumes no background knowledge, yet it acknowledges that students may have a strong background in U.S. history, so it focuses especially on topics of current relevance that fall outside of typical history courses—international conflict and international law in particular.
Spr HIST0252 S01 24643 MWF 12:00-12:50(05) (M. Vorenb erg)

HIST 0270A. From Fire Welders to Empire Builders: Human Impact on the Global Environment before 1492.
This is a new lecture course intended to introduce the field of environmental history to students with no previous experience in it. The study of prehistoric, ancient and medieval environments is a heavily interdisciplinary research field, and the course will emphasize the variety of sources available for studying it. We will combine textbook readings with primary source readings from scientific and archaeological reports and, especially, contemporary texts.
P Fall HIST0270A S01 16966 MWF 1:00-1:50(06) (B. Lander)

HIST 0270B. From the Columbian Exchange to Climate Change: Modern Global Environmental History.
Environmental stories are constantly in the news, from weird weather to viral outbreaks to concerns about extinction and fracking. In this course, we put current events in the context of the past 500 years, exploring how climate, plants, animals, and microbes—not just humans—acted as agents in history. From imperialism to the industrial revolution and from global capitalism to environmental activism, we will examine how nature and culture intermingled to create the modern world. This is an introduction to environmental history and assumes no prior courses.
Spr HIST0270B S01 24516 MWF 12:00-12:50(05) (B. Demuth)

HIST 0276B. Science and Capitalism.
We will explore the longstanding relationship between science and commerce from the 17th century to our own asking when the modern notion of science as a disinterested pursuit of objective truth took root. We will also explore how knowledge of the natural world has been shaped by personal, financial, and other kinds of self-interest in a number of diverse contexts ranging from Galileo’s invention of the telescope in Renaissance Italy to the patenting of genetically engineered organisms in today’s world, paying special attention to the diverse mechanisms that have been devised to guard against fraud and disinformation. WRIT
Spr HIST0276B S01 25593 Th 9:00-10:20(01) (L. Rieppel)

HIST 0286B. 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.
Spr HIST0286B S01 24509 MWF 9:00-9:50(02) (H. Cook)
Spr HIST0286B S02 25602 MWF 9:00-9:50(02) (H. Cook)

HIST 0523B. State Surveillance in History.
How and why do states watch their citizens? This course explores historical practices of state surveillance from the perspective of both the “watchers” and the “watched.” Special emphasis will be given to twentieth-century Europe, but examples from other parts of the world and the US will also be featured in the readings. Some of the readings will be primary sources: memoirs, diaries, surveillance files. Other sources will include films and short fiction and some scholarly pieces on the workings of state security and secret police organizations. FYS WRIT
Fall HIST0523B S01 15426 W 3:00-5:30(17) (H. Case)

HIST 0535B. Conquests.
What does “conquest” mean? How does it take place, and how is it experienced by both the invaders and the invaded? Drawing upon both primary and secondary sources, this seminar explores how conquest shaped the region we now know as Spanish America. We will begin with the great pre-Columbian empires of the Aztecs and Incas, and then turn to Spanish expeditions in the sixteenth century. The course will encompass specific moments of encounter (such as the Spanish capture of the Inca emperor Atahualpa at Cajamarca), as well as the broader implications of forging a new political and social order.
Fall HIST0535B S01 17070 W 3:00-5:30(17) (R. Cope)

HIST 0537A. Popular Culture in Latin America and the Caribbean.
From tango to plastic surgery, Donald Duck to reggaeton, this course places popular culture at the center of modern Latin American and Caribbean history. How, we will ask, did popular culture reflect and shape struggles over national belonging? How did foreign cultural products come to bear on international relations and transnational flows? In what contexts has culture served as a vehicle of resistance to dominant ideologies and systems of power? Far from a mere “diversion,” popular culture instead offers a compelling lens onto the relationship between state and society in Latin America and beyond. WRIT FYS DPLL
Spr HIST0537A S01 24579 Th 4:00-6:30(17) (J. Lambe)

HIST 0551A. Abraham Lincoln: Historical and Cultural Perspectives.
This seminar uses life, legacy, myth of Abraham Lincoln to explore central themes such as frontier in early republic, nature of political leadership, law/legal culture, and emergence of sectionalism, slavery, anti-slavery, Civil War. Frequent short writing assignments and research investigations allow students in-depth explorations of Lincoln’s works, the writings of his contemporaries, and modern non-fiction, fiction, and film. The course enables us to consider two larger themes: 1) the relationship between memory and history; and 2) the function of history in modern society. The course has no prerequisites and does not presuppose special knowledge of American history. WRIT FYS
Fall HIST0551A S01 15437 Th 3:00-5:30(11) (M. Vorenb erg)

HIST 0576A. The Arctic: Global History from the Dog Sled to the Oil Rig.
The Arctic is regularly in the media, thanks to climate change. This course examines the long history of human thinking about and habitation in the far north before and during the era of global warming. Focusing on how people valued, survived, and made the arctic home, topics range from whaling, the importance of dogs, cultural imaginaries and colonialism to capitalist and communist arctics, the meaning of sea ice, indigenous rights, and climate change. The course introduces historical methods and environmental history through reading, writing, discussion, and interpreting artifacts.
Spr HIST0576A S01 24515 W 3:00-5:30(10) (B. Demuth)

HIST 0621B. The Search for King Arthur.
The King Arthur legend is one of the most enduring stories to emerge from medieval Britain. Drawing evidence from written and archaeological sources, we’ll delve into shadowy period in which legend is based, between the collapse of Roman imperial power in Britain and establishment of the Anglo-Saxon and Celtic kingdoms that would succeed the empire. We’ll 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 sophomores. WRIT
Spr HIST0621B S01 24506 W 3:00-5:30(10) (J. Conant)

HIST 0654A. Welfare States and a History of Modern Life.
History of the American welfare state, from its origins in nineteenth-century industrial capitalism to contemporary debates about health care, in comparative perspective. Why did welfare states appear and what form did the U.S. version take? Considerations of social inequality, labor relations, race, gender, family policy, the social wage, and the relationship between markets and the state are all considered. Some comparison with European models. SOPH WRIT
Spr HIST0654A S01 24637 Th 4:00-6:30(17) (R. Seltz)
HIST 0654B. American Patriotism in Black and White.
This course explores the different and sometimes conflicting definitions and meanings of patriotism and citizenship through the lens of African American history and military participation, using primary and secondary sources from the colonial period to the present, including political and legal documents, letters to editors, literary pieces, plays, speeches, and petitions. What are the many definitions of freedom and patriotism, and how have black people understood their realities as they chose to serve militarily? This social and political (not military) history focuses on the political implications of African Americans’ military service for/to the nation over three centuries.
Fall HIST0654B S01 15512 M 3:00-5:30(05) (F. Hamlin)

HIST 0655A. Culture Wars in American Schools.
This course examines "culture wars" in American public schools over the past century. It will explore how and why school curriculum has become an arena for cultural conflict and how those debates have changed over time. These debates clashes in schools over religion, values, politics, and educational aims raise important questions about majority and minority rights, the existence and meaning of a common national culture, and the role of schooling in a democratic nation. Enrollment limited to 20 first year students and sophomores.
Fall HIST0655A S01 16967 Th 4:00-6:30(04) (T. Steffes)

HIST 0658D. Walden + Woodstock: The American Lives of Ralph Waldo Emerson and Bob Dylan.
Emerson and Dylan are cultural icons. Emerson has been called "Mr. America" and Dylan has just won the Nobel Prize for Literature. Both had boundless energy for public performance and self-representation; both actively supported turning points in the civil rights struggle; both raged against American military aggression; both were at the epicenter of a wide circle of intellectuals, while denying their own centrality. Is the celebrity intellectual’s responsibility to society while remaining true to oneself? Poems, essays, autobiographies, songs, and movies provide insight into these eternally fascinating gurus and their times. SOPH WRIT
Fall HIST0658D S01 15433 Th 4:00-6:30(04) (K. Sacks)

HIST 0930P. Powering the Past (ENVS 0710).
Interested students must register for ENVS 0710.
Fall HIST0930P S01 16874 Arranged "To Be Arranged"

HIST 0940B. The Campus on Fire: American Colleges and Universities in the 1960's (EDUC 0400).
Interested students must register for EDUC 0400.
Fall HIST0940B S01 16889 Arranged "To Be Arranged"

Interested students must register for EDUC 0610.
Spr HIST0940F S01 25679 Arranged "To Be Arranged"

HIST 1030. Southern African Entanglements: Class, Gender, Race, and Species since 1870.
Examines the contradiction of twentieth century South Africa as a divided society that nonetheless had dense contact across boundaries. In considering daily life, social interactions, and relations with animals, we find a challenging politics of entanglement within the class, gender, and racial hierarchies of apartheid. We close with a discussion of new divisions and alignments emerging during the transition to democratic rule in the 1990s.
Spr HIST1030 S01 24542 MWF 10:00-10:50(03) (N. Jacobs)

HIST 1050. Africa and the Transatlantic Slave Trade.
This lecture class looks at the relationship between Africa and the Transatlantic slave trade from the late fifteenth century to the nineteenth century. We deal with the main regions of Atlantic Africa affected by the largest forced migration in the history of humankind, focusing on such issues as resistance to the slave trade and the role of slavery in the African continent. The class will reflect on the relationship between the slave trade and African patterns of long-term underdevelopment as well as the relationship between the abolition of the trade and the rise of colonialism in the nineteenth century.
P Fall HIST1050 S01 17045 TTh 9:00-10:20(02) (R. Ferreira)

HIST 1080. Humanitarianism and Conflict in Africa.
This course focuses on the major issues and debates concerning humanitarianism and international intervention in 20th century Africa. It will explore the history of humanitarianism and the many challenges that arise when governments and institutions intervene in a conflict. Then students will investigate specific sites of conflict in Africa (ranging from Nigeria, Somalia, Rwanda, Sudan, and Western Sahara) and analyze different models of intervention and aid. These case studies will expose students to pivotal events in African history and equip them with a critical vocabulary with which to assess contemporary conflicts.
Fall HIST1080 S01 15416 TTh 2:30-3:50(03) (J. Johnson)

HIST 1110. Imperial China/China: Culture and Legacy.
As the current revival of Confucianism in the People’s Republic of China demonstrates, the past is still very much alive in China today. This lecture-discussion course surveys the history of China from the origins of the first state through the twilight of the imperial period in the nineteenth century. Lectures are designed and the reading assignments chosen to emphasize in particular those ideas and beliefs, institutions and government structures, and literary and artistic developments that have shaped (and continue to shape) China today. “Imperial China” provides the knowledge necessary for informed study of modern China.
Spr HIST1110 S01 24504 MWF 10:00-10:50(03) (C. Brokaw)

HIST 1111. Women and Gender in Chinese Society.
The People’s Republic of China has claimed the successful “liberation” of women from the many institutions, attitudes, and customs that limited their access to power and personal fulfillment in the past. “Women and Gender in China” examines both the assumptions about the lives of women in pre-twentieth century China and their need for liberation that lies behind this claim; and the validity of the claim itself: how have the lives of Chinese women changed since 1949? Readings emphasize primary sources about or by women (textbooks for women, memoirs, fiction, poetry, etc.).
Fall HIST1111 S01 15407 TTh 9:00-10:20(02) (C. Brokaw)

An exploration of how the artifacts of visual, material, aural and ritual culture illuminate the practices and beliefs of people at various levels of Chinese society from the late imperial period to the present. Topics include arrangements of space and time, popular entertainment, religion and performance, the growth of mass media, and the relationship of cultural forms to politics, protest and global forces. In addition to lectures, discussions and papers, students will have the opportunity to create research presentations using multiple media formats. DPLL
Fall HIST1112 S01 15489 TTh 1:00-2:20(10) (R. Nedostup)

HIST 1156. Postwar Japan.
This course is for students interested in exploring Japan’s remarkable cultural, political and social transformation from the closing days of the Second World War, through its emergence as an apparent exemplar of democratization’s potential and capitalism’s benefits, and on to the contemporary era. Lectures, readings and films will explore the legacies of the war and the Occupation, the so-called “economic miracle” (and its effects on the environment), the protest movements of the 1960s and beyond, and Japan’s complicated relationships with its neighbors, with the U.S., and with its own recent history. Open to all students.
Fall HIST1156 S01 16992 MWF 12:00-12:50(12) (K. Smith)

Explores essential social, cultural, and religious foundation blocks of Western Civilization, 200 BCE to 800 CE. The main theme is the eternal struggle between universalism and particularism, including: Greek elitism vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcendence vs. humanism; Roman imperialism vs. inclusion; Jewish assimilation vs. exclusion, and Islamic transcende
Fall HIST1202 S01 15411 TTh 1:00-2:20(10) (K. Sacks)
HIST 1211. 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. WRIT P
Spr HIST1211 S01 24634 TTh 9:00-10:20(01) (A. Remensnyder)

HIST 1230A. Revolution and Romanticism in 19th century Europe. 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 systematizers of these decades: Darwin and Marx. WRIT
Fall HIST1230A S01 15401 MWF 12:00-12:50(12) (M. Gluck)

HIST 1230B. Modern European Intellectual and Cultural History: The Fin de Siecle, 1880-1914. A sequel to HIST 1230A 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
Spr HIST1230B S01 24531 MWF 8:00-8:50(14) (M. Gluck)

HIST 1240A. Politics of Violence in 20C Europe. Europe's 20th century saw the emergence of forms of violence unthinkable in a world without mass politics. To better understand the changes in European states and societies that gave rise to total war and the violence associated with totalizing ideologies such as fascism and communism, we will read Lenin, Mussolini, Hitler, Fanon and others who sought to interpret violence as an extension of ideology. We will also read selections from more recent works by state leaders, historians and cultural figures from Ukraine to France, from Turkey to Great Britain who have reinterpreted past violence for present political ends.
Fall HIST1240A S01 16985 TTh 10:30-11:50(13) (H. Case)

HIST 1264M. Cultural History of the Netherlands in a Golden Age and a Global Age. Between 1580 and 1690 two nations emerged in Europe from what had been one unified region. To the north, the Dutch Republic gained its independence from Spain and developed as a bastion of liberty, ideas in ferment, visuals arts, Calvinist faith, science, technology, global economic reach. To the south, the "loyal" Netherlands, now Belgium, returned to the Spanish and Catholic fold, but sustained its leading position in the arts, competed in global trade, and negotiated a new compromise of government. In this course we present an interdisciplinary, comparative view of the "two" Netherland and their legacy in the world.
Spr HIST1264M S01 25604 TTh 2:30-3:50(11) (H. Cook)

HIST 1266C. 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 WRIT
Fall HIST1266C S01 15404 MWF 2:00-2:50(07) (T. Harris)

HIST 1266D. British History, 1660-1800. 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 WRIT
Spr HIST1266D S01 24535 MWF 2:00-2:50(07) (T. Harris)

HIST 1268C. 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. WRIT
Fall HIST1288C S01 15995 MWF 10:00-10:50(14) (E. Pollock)

HIST 1272D. The French Revolution. This course aims to provide basic factual knowledge of the French Revolution, an understanding of the major historiographic debates about the revolutionary period, and a sense of the worldwide impact of events occurring in late-eighteenth century France. A strong historiographic focus will direct our attention to the gendered nature of the revolutionary project; the tension between liberty and equality that runs throughout French history; the intersection of race and citizenship in the Revolution; and the plausibility of competing social, political, and cultural interpretations of the Revolution. DPLL
Fall HIST1272D S01 15515 TTh 2:30-3:50(03) (J. Revill)

HIST 1310. 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 within Brazilian society. WRIT
Fall HIST1310 S01 15414 TTh 2:30-3:50(03) (J. Green)

HIST 1320. Rebel Island: Cuba, 1492-Present. Cuba, once the jewel in the Spanish imperial crown, has been home to some of the world's most radical revolutions and violent repressions. For two centuries, its influence has spread well beyond its borders, igniting the passion of nationalists and internationalists as well as the wrath of imperial aggression. This course traces the history of Cuba from its colonial origins through the present, foregrounding the revolutionary imaginary that has sustained popular action-from anti-slavery rebellions through the Cuban Revolution and its discontents-in addition to the historical processes that have forged one of the world's most vibrant socio-cultural traditions.
Fall HIST1320 S01 15516 MW 3:00-4:20(17) (J. Lambe)

HIST 1381. Latin American History and Film: Memory, Narrative and Nation. This course provides an introduction to cinematic interpretations of Latin American history. Together we will explore how (and why) filmmakers have used motion pictures to tell particular narratives about the Latin American past. We will critically examine a broad range of films dealing with historical questions, and explore what these films have to say about how gender and sexuality, imperialism, slavery, the church, revolution and repression shaped the history of the region. In order to explore these topics we will examine films in relation to academic, autobiographical, and popular texts, all of which provide different ways of representing the past.
Fall HIST1381 S01 15410 Th 10:30-11:50(13) (D. Rodriguez)

HIST 1445. The Making of the Ottoman World, 15th - 20th Centuries. This course treats some of the major themes of Ottoman state and society, one of the major empires of the world out of which many new polities in the Balkans, Anatolia, the Middle East and North Africa emerged during the twentieth century. At the center of the course is the transformation of the "classical" Ottoman state to the early modern and modern through the many shapes and forms it has taken. We will be covering the beginnings from the 15th century and end with the analysis of the making of the modern Ottoman society in the early 20th century.
Fall HIST1445 S01 16680 MWF 2:00-2:50(07) (M. Toksoz)
HIST 1455. The Making of the Modern Middle East.
From North Africa to Afghanistan, Turkey to the Arabian peninsula, the goal of this course is to provide students with a robust background in modern Middle Eastern history, broadly defined. We begin in the long nineteenth century, an era of intense social and economic transformation that led to the collapse of the Ottoman empire and emergence of a new state system, primarily under British and French colonial rule. We then explore forces shaping the contemporary region, including nationalism, oil, regional conflicts and the Cold War, Islamism and mass politics, and military interventions by the US and other world powers. M
Spr HIST1455 S01 25171 MWF 2:00-2:50(07) (M. Toksoz)

HIST 1501. The American Revolution.
This course will explore the period of the American Revolution from the 1760s through the turn of the nineteenth century. Taking a broad view of the conflict and its consequences, we will situate the American colonies in their North American and Atlantic context, examine the material and ideological concerns that prompted the Revolutionary War, and trace the consequences of the conflict for the nation that followed. Students will be invited to look beyond the Founders to the experiences of women, slaves, Native Americans, common soldiers, and Loyalists. P
Spr HIST1501 S01 24635 TTh 1:00-2:20(08) (S. Rockman)

A survey with a specialized focus exploring American history from an urban frame of reference. Topics include the social consequences of the modern city, politics, reform, and federal-city relations. WRIT
Fall HIST1551 S01 15393 MW 8:30-9:50(01) (H. Chudacoff)

Gandhi's India tracks the emergence and transformations of British colonial rule in the Indian subcontinent, the insurrections and the cultural and economic critiques that shaped anti-colonial nationalism, the conflicts that fueled religious differences and the ideas that shaped non-violent civil disobedience as a unique form of resistance. With readings from Gandhi, Marx and Tagore, amongst others, this course interrogates relationships between power and knowledge, histories from below, as well as violence and political mobilizations that would, by the mid-twentieth century, bring down an empire and create a bloody and enduring divide with the birth of two nation-states.
Fall HIST1620 S01 16993 TTh 9:00-10:20(02) (V. Zamindar)

HIST 1825L. The Roots of Modern Science.
This course explores the ways theories of physics, chemistry, biology and mathematics grew in relation to the natural, cultural and social worlds of the 18th and 19th centuries. There are no formal pre-requisites for the course, which is designed to be equally open and accessible to science and humanities students. WRIT
Fall HIST1825L S01 15394 MWF 9:00-9:50(01) (J. Richards)

HIST 1830M. From Medieval Bedlam to Prozac Nation: Intimate Histories of Psychiatry and Self.
Humankind has long sought out keepers of its secrets and interpreters of its dreams: seers, priests, and, finally, psychiatrists. This lecture course will introduce students to the history of psychiatry in Europe, the United States, and beyond, from its pre-modern antecedents through the present day. Our focus will be on the long age of asylum psychiatry, but we will also consider the medical and social histories that intersect with, but are not contained by, asylum psychiatry: the rise of modern diagnostic systems, psychoanalysis, sexuality and stigma, race, eugenics, and pharmaceutical presents and futures.
Spr HIST1830M S01 24580 TTh 10:30-11:50(09) (J. Lambe)

HIST 1835A. Unearthing the Body: History, Archaeology, and Biology at the End of Antiquity.
How was the physical human body imagined, understood, and treated in life and death in the late ancient Mediterranean world? Drawing on evidence from written sources, artistic representations, and archaeological excavations, this class will explore this question by interweaving thematic lectures and student analysis of topics including disease and medicine, famine, asceticism, personal adornment and ideals of beauty, suffering, slavery, and the boundaries between the visible world and the afterlife, in order to understand and interpret the experiences of women, men, and children who lived as individuals—and not just as abstractions—at the end of antiquity. P
Spr HIST1835A S01 25518 MWF 11:00-11:50(04) (J. Conant)

HIST 1930B. Academic Freedom on Trial: A Century of Campus Controversies (EDUC 1740).
Interested students must register for EDUC 1740.
Fall HIST1930B S01 16890 Arranged 'To Be Arranged'

HIST 1930G. Black Freedom Struggle Since 1945 (AFRI 1090).
Interested students must register for AFRI 1090.
Spr HIST1930G S01 25717 Arranged 'To Be Arranged'

HIST 1930L. American Higher Education in Historical Context (EDUC 1730).
Interested students must register for EDUC 1730.
Spr HIST1930L S01 25411 Arranged 'To Be Arranged'

HIST 1930L. The History of American Education (EDUC 1020).
Interested students must register for EDUC 1020.
Fall HIST1930L S01 16891 Arranged 'To Be Arranged'

HIST 1930S. Roman History II: The Roman Empire and Its Impact (CLAS 1320).
Interested students must register for CLAS 1320.
Spr HIST1930S S01 25716 Arranged 'To Be Arranged'

How can we understand the worldwide revolt of youth in 1968 that shook political regimes from Brazil and Mexico to Paris and Prague? This seminar will examine different national and international histories of a year that has become synonymous with rebellion and revolution. We will consider texts that offer global analyses of the reasons and results of the upsurges that took place during this iconic year, as well as specific case studies of countries that focus on political, social, economic, and cultural reasons for social unrest.
Fall HIST1947A S01 15424 W 3:00-5:30(17) (J. Green)

Thinking Historically explores what it means to write about the past as well as to understand the present as the potential past. We examine major ways of interpreting the past through a survey of mostly Western historians and methods, from antiquity to contemporary practitioners, and observe how history is produced, used, and misused. There are weekly writing assignments, and active participation in discussions is essential. Students will write a final paper on a particular approach or methodology as applied to a historical document of their choosing.
Spr HIST1956A S01 29600 Th 4:00-6:30(17) (K. Sacks)
HIST 1956B. Rites of Power in Modern China.
Confucius and Mao shared at least one characteristic: a conviction that ritual is a critical part of exercising power. This course investigates the meaning of ritual and its importance in the formation of Chinese communities in the modern era, whether households, villages, empires, communes, regions, or nation-states. Topics include family and gender roles, imperial ceremonies, religious rites, revolutionary politics, cults of personality, grassroots movements, and popular protests. The class will collaboratively explore how political activists embraced new media (photographs, mass performance, music, film, video) and techniques (boycotts, mobilization, marches, purges) that merged ritual power with material action.

Spr HIST1956B S01 24800 M 3:00-5:30(17) (R. Nedostup)

Renaissance European collectors sought out objects for all kinds of reasons. They prized natural specimens (from exotic shells to monsters and mythical objects like unicorn horns), fine workmanship (silver life casts, turned ivory object, metal work, paintings, and glass), scientific instruments, books and maps, and, finally, hybrid objects that fused art and nature (for example, a 1556 coconut shell and gilt silver owl beaker).
Through readings, encounters with historical objects, demonstrations and hands-on making, we will examine the cabinet of curiosity as a site of knowledge, artisanal expertise, and economic and cultural capital in Renaissance Europe.

Fall HIST1956J S01 15432 Th 4:00-6:30(04) (T. Nummedal)

This seminar explores southern Africa as a space of frontiers. It offers a thematic treatment of the 500-year trajectory of contact. Beginning with interactions between indigenous hunter-gatherers and ago-pastoralist, we then move to encounters between them and Portuguese, Dutch, and British. Engagements between these groups in occur environmental, thematic treatment of the 500-year trajectory of contact. Beginning with interactions between indigenous hunter-gatherers and ago-pastoralist, we then move to encounters between them and Portuguese, Dutch, and British. Engagements between these groups in occur environmental, economic, political, as well as intimate gendered realism. We will see the ethnic, economic and cultural assimilation and the creolization of the precolonial frontiers after the first arrival of Europeans. By the nineteenth century, however, the fluidity between peoples and societies gives way to hard racial boundaries.

Fall HIST1960G S01 17034 F 3:00-5:30(11) (N. Jacobs)

This course explores the major debates in the history of medicine in Africa during the nineteenth and twentieth centuries and highlights the coexistence of a variety of healing traditions and medical understandings across the continent. It will focus on the following questions: What are some of the ways Africans practice and understand medicine? How have these practices interacted with other medical systems? What impact did colonialism have on the production of medical knowledge? How were practices and treatments evaluated and deemed effective? By whom and on what grounds? And have independent African states addressed these critical issues?

Fall HIST1960Q S01 15425 W 3:00-5:30(17) (J. Johnson)

HIST 1961C. Knowledge and Power: China's Examination Hell.
For centuries a rigorous series of examinations requiring deep knowledge of the Confucian Classics was the primary tool for the selection of government officials in imperial China. This system has been variously celebrated as a tool of meritocracy and excoriated as the intellectual “straightjacket” that impeded China’s entry into the modern world. This seminar examines the system and the profound impact it had, for better or worse, on Chinese society and government in the early modern period, and the role that its successor “examination hell”—the gaokao or university entrance examination—plays in society today.

Spr HIST1961C S01 25603 M 3:00-5:30(13) (C. Brokaw)

HIST 1961D. Urban Culture in Early Modern China.
The commercial boom of sixteenth and seventeenth century China stimulated the growth of a lively popular culture in the great cities of the southeast—Nanjing, Suzhou, and Hangzhou. These cities became magnets for ambitious scholars, pleasure-loving merchants, courtiers, artists, and writers and sites for the production of some of the great masterpieces of Chinese vernacular fiction, drama, book art, and painting. After some background reading in socioeconomic history, the course focuses on analysis of the literature and art of the period and what it reveals about the short-lived “floating world” of late imperial China.

Fall HIST1961D S01 15487 M 3:00-5:30(05) (C. Brokaw)

HIST 1962D. Japan in the World, from the Age of Empires to 3.11.
This seminar explores the ambitions, anxieties and mutual images that shaped Japan’s relationships with China, Korea, and eventually the West, from the early modern era to the 21st century. We will examine the response to Perry’s arrival in 1853, Japan’s subsequent efforts to join the ranks of the great powers of the day through diplomacy, the pursuit of empire, and military force, and the emergence of radically different ways of being in the world since 1945. Other topics to be covered include the role of race in shaping US-Japan relations, and the legacies of colonialism and war in East Asia.

Fall HIST1962D S01 16995 W 3:00-5:30(17) (K. Smith)

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. Writt P

Fall HIST1963Q S01 15419 M 3:00-5:30(05) (A. Remensnyder)

European fascination with the unseen world reached its highpoint alongside the Renaissance, Reformation, Scientific Revolution, and Enlightenment. Between 1500 and 1800, theologians, natural philosopher, princes, and peasants devoted enormous energy to understanding, communicating with, and eliminating a host of ethereal creatures, including ghosts, angels, demons, vampires, nature spirits, and witches. Some also sought to access the praeternatural powers that these creatures seemed to command. This course explores the intellectual, social, political, and religious origins of the interest in this unseen world, the structures Europeans created to grapple with it, as well as the factors that ultimately led to its demise.

Spr HIST1964B S01 24588 W 3:00-5:30(10) (T. Nummedal)

Selected topics in the social history of early modern England (c.1500-1800), with particular emphasis on the experiences of women. Themes to be addressed will include the family, working life, education, crime, politics, religion, and the early feminists. Not open to freshmen sophomores. P Writt

Spr HIST1964D S01 24534 M 3:00-5:30(13) (T. Harris)

HIST 1964F. Early Modern Ireland.
This seminar will cover various themes in the political, religious, social and cultural history of Ireland between c. 1500 and the later eighteenth century. Topics to be discussed will include the Reformation, the Irish Rebellion, Cromwell’s rule, the War of the Two Kings, popular protest, the beginnings of the Irish nationalism, and the experiences of women. P Writt

Fall HIST1964F S01 15418 M 3:00-5:30(05) “To Be Arranged”

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
There were multiple forms of slavery in the Early Modern world. We will look at three major systems: Mediterranean slavery and the Barbary Corsairs, Black Sea slavery and slave elites of the Ottoman Empire, and the Atlantic triangular trade. We will examine the religious, political, racial, and economic bases of these slave systems, and compare the experiences of individual slaves and slave societies. Topics discussed include gender and sexuality (e.g. the institution of the Harem and the eunuchs who ran it), the connection between piracy and slavery, and the roles of slavery in shaping the Western world.
Fall HIST1964L S01 16816 Th 4:00-6:30(04) (A. Teller)

HIST 1965C. Stalinism.
In this course students will examine in detail one of the most deadly and perplexing phenomena of the twentieth century: Stalinism. Readings will introduce students to major events of Soviet history from the mid-1920s to the mid-1950s as well as debates among historians about how to interpret those events.
Spr HIST1965C S01 24799 W 3:00-5:30(10) (E. Pollock)

HIST 1965R. The Crisis of Liberalism in Modern History.
Liberalism has flamed out before. Its collapse in the late 19th left a mark on the psychoanalytic theories of Sigmund Freud, the art of Gustav Klimt, and the fiction of Franz Kafka. Liberalism's second collapse in the 1930s, inspired the founder of neoliberal economics Friedrich Hayek and the philosopher of science Karl Popper. These men were all Austrian, a nationality they shared with the most infamous critic of liberalism, Adolf Hitler. This course wonders why this country in the center of Europe has exercised such an outsized influence on our modern experience.
Spr HIST1965R S01 25606 Th 4:00-6:30(17) (H. Case)

This course will focus on the political, social, economic, and cultural changes that took place in Brazil during the military dictatorship that ruled the country from 1964-85. We will examine why the generals took power, the role of the U.S. government in backing the new regime, cultural transformations during this period, and the process that led to re-democratization.
Spr HIST1967L S01 24532 M 3:00-5:30(13) (J. Green)

HIST 1968A. Approaches to the Middle East.
This seminar introduces students to the interdisciplinary field of Middle East Studies in the broader context of the history of area studies in the humanities and social sciences. Why and when did the Middle East become an area of study? What are the approaches and topics that have shaped the development of this field? And what are the political implications of contending visions for its future? The readings sample canonical and alternative works and the classes feature visits by leading scholars who research and write on this pivotal and amorphous region.
WRIT Fall HIST1968A S01 15423 W 3:00-5:30(17) (F. Ahmed)

This course explores the history of Muslims in the United States—and American discussions about Islam—from colonial times to the present. Organized chronologically and thematically, we will follow major questions and debates in American relations with the so-called “Muslim world”—from Columbus’s fateful 1492 voyage to Morocco’s recognition of the United States in 1777; and Muslim slaves and migrants in the Antebellum South to President Obama’s historic Cairo speech. As a broadly conceived transregional history, the seminar explores the diverse social, political, and economic processes connecting Africa, the Middle East, South Asia, and North America from the fifteenth to twenty-first centuries.
Spr HIST1968U S01 24822 W 3:00-5:30(10) (F. Ahmed)

HIST 1969C. Debates in Middle Eastern History.
This seminar investigates the historical bases of some of the major debates which continue to dominate contemporary discussions on the Middle East. These include debates on colonialism and its legacies; problems associated with the post-colonial Middle Eastern state (the "democracy deficit": human rights; oil; political Islam); and arguments about the causes and consequences of some of the major events in Middle Eastern history (the Israel-Palestinian conflict; the Iranian revolution; the Lebanese civil war; 9/11 and the Iraq invasion; and the Arab Spring).
Spr HIST1969C S01 16809 Th 4:00-6:30(04) (S. Mitter)

This course examines the varieties of Indian and African enslavement in the Atlantic world, including North America, up through 1800. Reading widely in recent literature in the field as well as in primary sources from the colonial period, we will ponder the origins, practices, meanings, and varieties of enslavement, along with critiques and points of resistance by enslaved peoples and Europeans. Special emphasis will be given to the lived nature of enslavement, and the activity of Indians and Africans to navigate and resist these harsh realities. A final project or paper is required, but there are no prerequisites. P
Spr HIST1970B S01 24530 Th 4:00-6:30(17) (L. Fisher)

HIST 1970F. Early American Money.
The history of finance has become a crucial site for studying governance and statecraft, for recovering the organizing logic of capitalism, and for recognizing the structures of power in any given society. Topics include the recurring debates over metallic and paper currencies, the emergence of a national banking system, and the technologies of coinage, assaying, and counterfeiting. Particular focus on the relationship of finance and slavery, as well as the many “bank wars” that riled American politics from the seventeenth century through the nineteenth century.
Fall HIST1970F S01 16809 M 3:00-5:30(05) (S. Rockman)

Undergraduate seminar on the United States and international law. Focuses mainly on the period before the twentieth century. Examines subjects such as the right of revolution; the evolution of U.S. Constitution law; law as an instrument of economic development and exploitation; and the evolution of rights-consciousness—all within the context of international law. Enrollment limited to 20. Students should contact the instructor before the beginning of the semester if they are interested in taking the course. Instructor permission required. WRIT
Spr HIST1972A S01 24642 W 3:00-5:30(10) (M. Vorenberg)

HIST 1972F. Consent: Race, Sex, and the Law.
In the context of recent student organizing on college campuses, the word “consent” has become headline news. But what is “consent” and what does it have to do with the history of race and sexuality in America? In this course, we will use history, law, and feminist theory to understand the origins of consent, to trace its operation as a political category, and to uncover the many cultural meanings of “yes” and “no” across time. Themes addressed include: slavery, marriage, sex work, feminism, and violence, from the founding of American democracy to the present.
Spr HIST1972F S01 24590 M 3:00-5:30(13) (E. Owens)

What can the experience of a minority group like the Jews teach us about roots of globalization? What were the economic, political, and cultural conditions that allowed early modern Jewish merchants to create economic networks stretching from India to the New World? We will answer these questions by examining the connections and interactions between four major Jewish centers: Ottoman Jewry in the Eastern Mediterranean, the Port Jews of Amsterdam and London, Polish-Jewish estate managers in Ukraine, and the Court Jews of central Europe. We will see how European expansion exploited - and was exploited by - these Jewish entrepreneurs. P
Spr HIST1974M S01 24641 M 3:00-5:30(13) (A. Teller)
Participants in this seminar are invited to explore human and non-human relations in the global past. The history of human-animal relations is huge, so rather than attempt a general survey, we situate our discussion around selected topics. We begin with one animal, the wolf, and move through established and less-familiar historical topics, building toward our final question: how does the inclusion of animals enhance the discipline? The anthropologist Claude Lévi-Strauss said, "animals are good to think with." So is history. In this seminar we think through those things together. WRIT Spr HIST1976G S01 24541 F 3:00-5:30(15) (N. Jacobs)

### HIST 1977L. Gender, Race, and Medicine in the Americas.
This seminar explores the gendered and racial histories of disease and medicine in nineteenth and twentieth century Latin America and the United States. From the dark history of obstetrics and slavery in the antebellum U.S. South to twentieth-century efforts to curb venereal disease in revolutionary Mexico or U.S.-occupied Puerto Rico, to debates over HIV policy in Cuba and Brazil—together we will explore how modern medicine has shaped both race and gender in the Americas. Topics we will explore include environmental health and the body; infant mortality; the medicalization of birth; and the colonial/imperial history of new reproductive technologies. Spr HIST1977l S01 24563 W 3:00-5:30(10) (D. Rodriguez)

### HIST 1980R. Urban Schools in Historical Perspective (EDUC 1720).
Interested students must register for EDUC 1720. Spr HIST1980R S01 25678 Arranged 'To Be Arranged'

Interested students must register for JUDS 1726. Fall HIST1981D S01 16893 Arranged 'To Be Arranged'

Interested students must register for ENVS 1910. Fall HIST1981F S01 16873 Arranged 'To Be Arranged'

### 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.

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. The course helps students refine research skills, define a project, and prepare a thesis prospectus, which is required for admission to honors. Students who complete honors may count HIST 1992 as a concentration requirement. Limited to juniors who qualify for the honors program. WRIT Fall HIST1992 S01 15430 M 3:00-5:30(05) (N. Shibusawa)
Spr HIST1992 S01 24638 M 3:00-5:30(10) (N. Shibusawa)

HIST 1992 and 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. Fall HIST1993 S01 16125 Arranged (N. Shibusawa)
Spr HIST1993 S01 24639 Arranged (N. Shibusawa)

### HIST 1994. History Honors Workshop for Thesis Writers, Part II.
This is the second half of a year-long course, upon completion the grade will revert to HIST 1993. Prerequisite: HIST 1993. WRIT Fall HIST1994 S01 16126 Arranged (N. Shibusawa)
Spr HIST1994 S01 24640 Arranged (N. Shibusawa)

### HIST 2450. Exchange Scholar Program.
Fall HIST2450 S01 15145 Arranged 'To Be Arranged'
Fall HIST2450 S02 15146 Arranged 'To Be Arranged'
Spr HIST2450 S01 24088 Arranged 'To Be Arranged'

### 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. Fall HIST2890 S01 15147 Arranged 'To Be Arranged'
Spr HIST2890 S01 24089 Arranged 'To Be Arranged'

### 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 2930. Colloquium.
Required of all first-year graduate students; includes participation in Thursday Lecture Series. E Fall HIST2930 S01 15420 M 3:00-5:30(05) (T. Nummedal)

### HIST 2935. Historical Crossings: Empires and Modernity.
“Historical crossings” is a rough translation of histoire croisée, referring to global configurations of events and a shared history, rather than to a traditional comparative history. This Seminar is designed to be the cornerstone of the M.A. program. It will not serve as a traditional historical methods course but instead focus on training students to read and think on various scales of historical analysis—from cross-cultural and trans-geographic to the granularity of social and cultural specificity, requiring students to think both globally and locally and introducing them to an advanced level of historical inquiry, debate, and exploration. Fall HIST2935 S01 15421 M 3:00-5:30(10) 'To Be Arranged'

### HIST 2940. Writing Workshop.
Required of all 3rd semester Ph.D. students. Fall HIST2940 S01 15431 M 3:00-5:30(05) (E. Pollock)

### HIST 2960. Prospectus 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 24583 Arranged (R. Nedostup)

### HIST 2970C. Rethinking the Civil Rights Movement.
This graduate course encourages a rethinking of the complex components, arguments and activities that have characterized what we have come to know as the Civil Rights Movement, concentrating primarily on African American agency, actions and politics, through careful reading of recent scholarship in the field. While knowledge of U.S. history is preferred, this course asks larger thematic questions about protest movements (the role of the state, relationships with and between oppressed groups and organizations, and periodization), that will interest non-Americanists also. Some of the topics covered include: gender, organizing and strategies, the local, global ramifications and interactions, organizational structures and politics, and the recent concept of the Long Civil Rights Movement. M Spr HIST2970C S01 24553 M 3:00-5:30(13) (F. Hamlin)

### HIST 2970Q. Core Readings in 20th Century United States History.
Major topics and themes in 20th-century U.S. history. M Fall HIST2970Q S01 15428 W 5:30-7:50 (R. Self)

### HIST 2971I. New Perspectives on Medieval History.
No description available. Fall HIST2971I S01 15427 Arranged (J. Conant)
HIST 2981F. The Politics of Knowledge.
The seminar offers an introduction to fundamental theoretical texts and exemplary works in the interdisciplinary field of Science and Technology Studies. Readings will be drawn from a range of time periods and geographical areas, and students will be asked to deploy the theoretical insights of our readings in working with sources in their own fields for a final research paper. Topics include: the gendered dimensions of knowledge, the moral economy of science, claims to expertise, and the stakes of "objects". Fall HIST2981F S01 15439 Th 4:00-6:30(04) (L. Riepep)

HIST 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.
Fall HIST2990 S01 15148 Arranged "To Be Arranged"
Spr HIST2990 S01 24090 Arranged "To Be Arranged"

History of Art and Architecture

Introduction to the global history of art, architecture and material culture from cave paintings to installation art. The course is both an historical survey as well as an analysis of case study examples. In addition to examining visual strategies of representation, the course explores the varied ways in which art shapes and reflects cultural, social, religious, and political concerns. Weekly one-hour conference required. Limited to 225. A Fall HIAA0010 S02 15832 MWF 11:00-11:50(16) (S. Bonde)

HIAA 0021. Arts of Asia.
From sacrificial cauldrons to sunflower seeds, and Roman Buddhas to five-toed dragons, this course introduces the incredible diversity of traditions that collectively constitute the arts of Asia. Organized around a series of case studies of exemplary objects, the course explores the temporal, geographic, material, and thematic range of Asian art through the life stories of individual things. Tracing histories of human ingenuity and value, we will examine the ways these things changed the people who saw them and were themselves changed in the process of being seen. And we will come to know them through the ways they change us. WRIT Spr HIAA0021 S01 24444 TTh 10:30-11:50(09) (J. Moser)

HIAA 0050C. Illustrating Knowledge.
This seminar will investigate the history of illustration from the first manuscript maps and printed herals to the present, including paintings, photographs, and computer imaging. We will investigate the role of pictures in the exchange of scientific ideas, and modes of representation developed in both the arts and the sciences. Enrollment limited to 15 first year students.
Spr HIAA0050C S01 25684 MW 3:00-5:20 (E. Lincoln)

This undergraduate lecture course traces the rise of American painting in the period from the Revolution to the dawn of modernism in the 20th century. Major figures, such as Thomas Cole, Frederick Church, Winslow Homer and Albert Pinkham Ryder, will be examined, as will significant movements, such as the Hudson River School and Tonalism. Discussion will help place American art within the context of history, the invention of national identity, and parallel developments in popular visual culture. Enrollment limited to 50.
Fall HIAA0070 S01 15831 MWF 10:00-10:50(14) (D. Nickel)

Over the long nineteenth century (1789-1900) revolutions replaced kings with citizens. Capitalist and colonial expansion mobilized armies, goods, and slaves across continents. New class and gender dynamics changed patterns of sociability. Technological innovations mass produced images and goods. In this course, we will discern such social and historical factors in Europe and across the globe alongside artistic ones to interrogate what makes art in this period irremissibly modern. We will study the turbulence that has defined the century, including the art historical swings in style from Classicism to Romanticism to Impressionism, with care. Course includes visits and assignments in museums.
Fall HIAA0077 S01 17141 MWF 2:00-2:50(07) (H. Shafer)

Examines the paintings, sculpture, graphic art, and architecture of Tuscany in the 15th century, primarily in Florence but also venturing into Siena, Arezzo, Borgo San Sepolcro. Using Renaissance critical terms and analytical tools, we take into account the technical and commercial habits of craftspeople, the economy of the cities and towns, and the forms and functions of art in domestic, civic, and religious spheres. Weekly one-hour conference required. WRIT / A Fall HIAA0550 S01 15830 TTh 9:00-10:20(02) (E. Lincoln)

HIAA 0630. Cultural History of the Netherlands in a Golden Age and a Global Age.
Between 1580 and 1690 two nations emerged in Europe from what had been one unified region. To the north, the Dutch Republic gained its independence from Spain and developed as a bastion of liberty, ideas in ferment, visuals arts, Calvinist faith, science, technology, and global economic reach. To the south, the "loyal" Netherlands, now Belgium, returned to the Spanish and Catholic fold, but sustained its leading position in the arts, competed in global trade, and negotiated a new compromise of government. In this course we present an interdisciplinary, comparative view of the "two" Netherlands and their legacy in the world.
WRIT Spr HIAA0630 S01 24447 TTh 2:30-3:50(11) (J. Muller)

HIAA 0710. The Other History of Modern Architecture.
This lecture course presents modern architecture as the product of the cultural, technological, political, and intellectual developments associated with capitalist expansion across the globe. By exploring the trans-Atlantic slave trade and its effects on Western industrialization, European Jesuit gardeners in China, modernization efforts in 19th century Turkey and Japan, and tropical climate and colonial policy in India, Nigeria, and other global sites; the course will expose students to the "99 percent" who are frequently excluded from discussions about modern architecture, but whose labor and cultural traditions were crucial to the heroic modernism of the West. A WRIT Spr HIAA0710 S01 24446 MWF 1:00-1:50(06) (I. Osayimwese)

This lecture course introduces the built environments in and of "Africa," from the earliest known examples to the contemporary moment. Through a consideration of texts and images, we will interroga"e Africa" as both a construct and concrete geographical entity characterized by diverse cultures, contexts, and histories. In addition to exploring the content of various architectural and urban traditions, we will approach our topic from the point of view of the theoretical paradigms that have governed the historiographical interpretation of particular periods, regions, and cultures. Readings will be arranged thematically and according to chronology and geography. Weekly one-hour section required. A DPLL WRIT Fall HIAA0770 S01 15833 TTh 10:30-11:50(13) (I. Osayimwese)

HIAA 1560E. The Arts of Renaissance Courts.
Courts were active patronage centers in the areas of secular and religious painting, sculpture and architecture, book illumination, rich narrative textiles for interior use and ornamental ones for costume, as well as ephemeral works for theatrical productions, triumphal entries and festivities. Artists working at court were able to ignore guild regulations, and acquired a status for themselves that set them apart from other urban practitioners. Centering our investigation on primary sources as far as possible, we will study a wide range of works, materials, ideologies and practices that contributed to the reputation of the Italian courts as centers of opulence and power. Final project and weekly class meetings required. Enrollment limited to 20. Instructor permission required. WRIT Fall HIAA1560E S01 15839 M 3:00-3:50(05) (E. Lincoln)

HIAA 1600B. Caravaggio.
Caravaggio is one of the great revolutionary artists and a real cultural phenomenon in his own time and ours. This seminar considers in-depth the nature of his work, the different historical strategies used to explain it, and possible new approaches. Prerequisites: HIAA 0010 or HIAA courses in early modern art.
Fall HIAA1600B S01 16662 Th 4:00-6:30(04) "To Be Arranged"
HIAA 1910E. Project Seminar for Architectural Studies Concentrators.
Fall HIAA1910E S01 15838 F 3:00-5:30(11) (L. Osayimwe)  

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.

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 2440E. The Body in Medieval Art and Architecture.
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 represenation of the body in painting and sculpture, attitudes toward sexuality, the performance of identity through clothing, and the summptuary laws that governed clothing and behavior. We will investigate funerary rituals and burial, and the movement of living bodies in dance and civic and religious processions.  
Spr HIAA2440E S01 24835 Th 4:00-6:30(17) (S. Bonde)

HIAA 2450. Exchange Scholar Program.
Fall HIAA2450 S01 15139 Arranged 'To Be Arranged'

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 16661 F 3:00-5:30(11) (D. Nickel)

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.  
Fall HIAA2970 S01 15140 Arranged 'To Be Arranged'
Spr HIAA2970 S01 24083 Arranged 'To Be Arranged'

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.  
Fall HIAA2990 S01 15141 Arranged 'To Be Arranged'
Spr HIAA2990 S01 24084 Arranged 'To Be Arranged'

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.  
Fall HIAA2991 S01 15142 Arranged 'To Be Arranged'
Spr HIAA2991 S01 24085 Arranged 'To Be Arranged'

HIAA 2992. Master's Thesis Preparation.
For students preparing a terminal MA thesis, may be repeated in the following semester. Sign up for sections according to individual primary advisor.

HIAA XLIST. Courses of Interest to Concentrators.

International Relations

Open only to Senior students accepted into the honors program in international relations. Instructor permission required. W/RT

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.

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, comprehesion, and writing. Overview of contemporary Italian society. Four meetings per week, audio and video work, two Italian films. Note: This is a year course.

Fall ITAL0100 S01 16600 MW 1:00-1:50(10) (C. Abbona-Sneider)
Fall ITAL0100 S02 16601 MW 10:00-10:50(13) (C. Abbona-Sneider)
Fall ITAL0100 S03 16602 MW 2:00-2:50(03) (C. Abbona-Sneider)
Fall ITAL0100 S04 16603 TTh 2:30-3:30(03) (C. Abbona-Sneider)

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, comprehesion, and writing. Overview of contemporary Italian society. Four meetings per week, audio and video work, two Italian films. Note: This is a year course.

Fall ITAL0100 S01 16600 MW 1:00-1:50(10) (C. Abbona-Sneider)
Fall ITAL0100 S02 16601 MW 10:00-10:50(13) (C. Abbona-Sneider)
Fall ITAL0100 S03 16602 MW 2:00-2:50(03) (C. Abbona-Sneider)
Fall ITAL0100 S04 16603 TTh 2:30-3:30(03) (C. Abbona-Sneider)

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, comprehesion, and writing. Overview of contemporary Italian society. Four meetings per week, audio and video work, two Italian films. Note: This is a year course.

Fall ITAL0100 S01 16600 MW 1:00-1:50(10) (C. Abbona-Sneider)
Fall ITAL0100 S02 16601 MW 10:00-10:50(13) (C. Abbona-Sneider)
Fall ITAL0100 S03 16602 MW 2:00-2:50(03) (C. Abbona-Sneider)
Fall ITAL0100 S04 16603 TTh 2:30-3:30(03) (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. Students will discuss various aspects of contemporary Italian culture. Reading, analysis and class discussion of texts (articles, songs, pictures, short stories, movies and television), oral presentations, based on research, and a writing portfolio (compositions, essays, blog and a journal). Prerequisites: ITAL 0400, or placement by examination.
Fall ITAL0500 S01 16505 TTh 12:00-12:50(12) (C. Abbona-Sneider)
Fall ITAL0500 S01 16505 MW 12:00-12:50(12) (C. Abbona-Sneider)

ITAL 0951. The Grand Tour, or a Room with a View: Italy and the Imagination of Others.
Italy has for many decades been the place to which people traveled in order to both encounter something quite alien to their own identities and yet a place where they were supposed to find themselves, indeed to construct their proper selves. This course introduces students to some of the most important texts that describe this “grand tour.” Readings, both literary and travelogues by Goethe, De Stael, Henry James, Hawthorne, Freud, among others, and films like “A Room With A View” - all in order to determine the ways in which Italy “means” for the cultural imagination of Western civilization. Enrollment limited to 19 first year students. FYS WRIT
Fall ITAL0951 S01 16506 M 3:00-5:30(05) (S. Stewart-Steinberg)

ITAL 1000G. Italian Identity.
This course examines the process of the construction of Italian identity from National Unification until today. Through a close reading of Manzoni, De Amicis, Verga and Lampedusa’s works, we investigate the formation of Italian identity through language, literature, food, and opera. We will also examine the problems of Post-Unification Italy: the economic and cultural gap between North and South and the Southern Issue. Finally, we will examine documentaries and readings that assess Italy today to analyze the feeling of not-belonging and estrangement, and the problematic search for a cohesive identity in a multicultural Italy within the European Union. Taught in Italian.
Fall ITAL1000G S02 16605 TTh 10:30-11:50(13) (F. Fantarella)

ITAL 1010. Dante in English Translation: Dante's World and the Invention of Modernity.
Primarily for students with no knowledge of Italian. Given in English. Concentrators in Italian should enroll in ITAL 1610; they are expected to read the material in the original. Close study and discussion of Dante’s deployment of systems of retribution in the Inferno and rehabilitation in the Purgatorio with a view to imagining a society based on love and resistant to the effects of nascent capitalism and the money economy. Dante’s work summarizes and transforms the entire ancient and medieval tradition of literature, philosophy, and science. WRIT
Fall ITAL1010 S01 16507 TTh 2:30-3:50(03) (R. Martinez)

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 16508 Th 4:00-6:30(04) (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 2190G. Letteratura Italiana del Novecento.
In questo seminario, leggeremo e discuteremo alcune delle più significative opere di narrativa e poesia novecentesca, da Svevo a Calvino e da Montale a Zanzotto, sullo sfondo delle grandi trasformazioni della società e della cultura italiana, dal fascismo alla seconda Guerra mondiale e alla prima repubblica, alla luce delle teorie critiche più influenti, dal futurismo all’ermetismo e dal neo-realismo al post-modernismo. Taught in Italian.
Fall ITAL2190G S01 16499 F 3:00-5:30(11) (M. Riva)

ITAL 2220. New Perspectives on Fascism.
Examines the new light shed by recent research on Italian Fascism, placing Italy’s Fascist ventennio (1922-45) in a larger European context. Among the questions to be addressed: What explains Mussolini’s rise to power and his ability to stay in power? To what extent did Italians become Fascist? What role did force play in ensuring popular allegiance to the regime? What role did the Church play? Did Fascism remake concepts of gender? Attention will be paid to the role of the media, writers, intellectuals, and the arts. Comparison with Nazi Germany and other regimes labeled “Fascist” will be explored.
Fall ITAL2220 S01 16509 M 3:00-5:30(05) (D. Kertzer)

ITAL 2450. Exchange Scholar Program.
Fall ITAL2450 S01 15149 Arranged ‘To Be Arranged’
Spr ITAL2450 S01 24091 Arranged ‘To Be Arranged’

ITAL 2820. Italian Studies Colloquium.
The Italian Studies Colloquium is a forum for an exchange of ideas and work of the community of Italian scholars at Brown and invited outside scholars. Graduate students present their work in progress, and engage the work of faculty and visitors. They are expected to come prepared with informed questions on the topic presented. Presentations in both Italian and English. Instructor permission required.
Fall ITAL2820 S01 16511 F 12:00-1:30 (M. Riva)

ITAL 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.
Fall ITAL2970 S01 15150 Arranged ‘To Be Arranged’
Spr ITAL2970 S01 24092 Arranged ‘To Be Arranged’

ITAL 2980. Reading and Research.
Courses on special subjects individually planned and supervised. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ITAL 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.
Fall ITAL2990 S01 15151 Arranged ‘To Be Arranged’
Spr ITAL2990 S01 24093 Arranged ‘To Be Arranged’

Judaic Studies

Hebrew
HEBR 0100. 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 and to a variety of cultural issues. If registration is closed, 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 permission. Enrollment limited to 20.
Fall HEBR0100 S01 16671 TTh 1:00-2:20(06) (R. Adler Ben Yehuda)
Fall HEBR0100 S01 16671 MWF 1:00-1:50(06) (R. Adler Ben Yehuda)
HEBR 0200. 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 and to a variety of cultural issues. Prerequisite: HEBR 0100. Students must have taken HEBR 0100 for credit to receive credit for this course. Exceptions must be approved by both the academic department and the Committee on Academic Standing. Enrollment limited to 20.

HEBR 0300. 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: HEBR 0200 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.

HEBR 0400. 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: HEBR 0300 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.

Judaic Studies
JUDS 0050A. Believers, Agnostics, and Atheists in Contemporary Fiction and Memoirs.
In recent decades, there has been a resurgence of religiosity in contemporary society, while at the same time many have been skeptical and even hostile to religious belief and practice. Others are just not sure what to believe. We will study selections of fiction and memoirs by writers of Christian and Jewish background that explore such situations as the affirmation or negation of the existence of God, the role of religious ritual in a person’s life, and the positive and negative impacts on society of religious institutions and the clergy who lead them. Enrollment limited to 19 first-year students.

JUDS 0050M. Difficult Relations? Judaism and Christianity from the Middle Ages until the Present.
Jewish and Christian identity in Europe has traditionally been closely connected to the ways the two religions view each other. Mutual admiration, influence, and hatred have combined together in a difficult relationship, fundamental to European history. In this course, we will survey that relationship, examining some key issues and events which shaped it. The Jews’ attitudes and actions will be examined alongside those of their Christian neighbors. Topics covered include: medieval revulsion and attraction; early modern re-evaluations of Judaism and Christianity; modern Christian anti-Semitism, Jewish diplomacy, and the Holocaust; the effects of Vatican II; Israel and the contemporary Christian world.

JUDS 0061. Foreigners, Refugees, and the Ethics of Minority.
This class interrogates the legal and ethical definitions of persons and homelands by examining the relationship between concepts of native and foreigner, hospitality and neighborhood, refuge and exile, minority and majority. We will adopt historical, philosophical, and legal perspectives and take the Jewish historical experience of exile and minority as a jumping off point for discussing the contemporary refugee and migration crisis. The goal of this class is to contextualize liberal democratic debates over rights to migration and mobility with historical religious and moral sources as well as to explore the possibilities for social integration of difference within pluralism. DPLL WRIT

A survey of classic Jewish texts, from the Bible to modern literature. Each text will be discussed from the perspective of both its own historical and social context and its engagement with earlier ones. Attention will be paid on how these authors address perennial issues of human concern and how their answers are shaped by their experience as Jews. DPLL WRIT

JUDS 0902. 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 40. If unable to enroll because of closed registration please contact the professor and a wait list will be created. DPLL WRIT

JUDS 1002. Targumic Aramaic.
A systematic study of the grammar of Targumic Aramaic followed by readings from Targum Onqelos to the Book of Exodus. Prerequisite: knowledge of the grammar of a Semitic language (preferably Hebrew). Open to undergraduates and graduate students with the necessary background. Regular attendance and thorough preparation are mandatory for all students in this class. By the end of the semester, we will have translated at least four chapters of the Onqelos Targum to Exodus. This course will serve as a foundation for any further work students intend to do with Aramaic (e.g., Old, Imperial, Biblical, Talmudic).

Brown University
Ancient Jews and Christians produced many texts that were not canonized in the Bible, texts often as interesting, beautiful, or theologically rewarding as those later canonized. Why were they not also included? What was the process of canonization, and who was in charge? What were the contexts that produced the non-canonical texts? Were the texts omitted at odds with the mainstream, or even dangerous? What value did they have in the ancient world, and what value do they hold today for historical understanding? We will study some of the best of these texts, comparing them to biblical texts.
Fall JUDS1603 S01 16931 T 4:00-6:30(09) (L. Wills)

JUDS 1690. 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 JUDS1690 S01 25169 W 3:00-5:30(10) (S. Olyan)

This course surveys the history of Israel from its Proclamation of Independence in 1948 until today. Israel's history has unfolded under the shadow of its prolonged conflict with the Palestinians and its Arab neighbors. At the same time, an entirely new, vibrant and dynamic society and culture has developed there. This course aims to familiarize the student with the major outlines of Israel's development, and with different narratives and interpretations of that history. The reading materials and class discussions will examine not only the Arab-Israeli conflict, but also its influence on Israeli politics, society and culture.
WRIT
Spr JUDS1711 S01 25682 TTh 10:30-11:50(09) (R. Rojanski)

JUDS 1713. 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 this course will also have the opportunity to develop a basic knowledge of the Yiddish language.
DPLL
Fall JUDS1713 S01 16321 TTh 10:30-11:50(13) (R. Rojanski)

JUDS 1718. Modernity, Jews, and Urban Identities in Central Europe.
The course will explore the distinct cultural identities that Jewish modernist intellectuals like Walter Benjamin, Gershom Scholem, Sigmund Freud, Franz Kafka and Karl Kraus forged for themselves in response to the conflicting challenges of assimilation, anti-semitism and modernization. Readings will be based on primary sources and special emphasis will be placed on the historical contexts of Berlin, Vienna, Budapest and Prague where these thinkers lived their lives. DPLL WRIT
Spr JUDS1718 S01 25201 M 3:00-5:30(13) (P. Nahme)

The seminar explores the relationship between humor, popular culture and Jewish ethnic identity in early 20th-century Europe and America. It argues that self-deprecating humor and satiric performance of Jewish stereotypes were not expressions of self-hatred, but complex cultural gestures that led to integration within mainstream society. Topics to be considered are: the joke as a social gesture; the Jewish music hall as an urban institution; the politics of blackface in American Vaudeville; the East-European Jews in Hollywood. DPLL
Fall JUDS1726 S01 16677 Th 4:00-6:30(04) (M. Gluck)

This course introduces students to Jews in the Islamic World from the beginnings of Islam through the modern era. Topics include the legal and social status of Jews under Islam, the structure and schisms of the Jewish community in Islamic empires, Jewish-Muslim relations, the intellectual transformations of Judaism under the impact of Islamic and Arabic culture, and historiographic perspectives. Students will be exposed to a range of primary and secondary source materials and have an opportunity to pursue a research topic in depth.
Fall JUDS1750 S01 17044 Th 4:00-6:30(04) "To Be Arranged"

JUDS 1753. Blacks and Jews in American History and Culture.
African Americans and American Jews have interacted throughout the history of the United States. Through readings, images, and films, this course will explore this complex, sometimes tortured relationship in its religious, cultural and political aspects. It will discuss the role of Jews in the slave trade, the contributions of both groups to American popular culture, both groups’ involvement in the struggle for the Civil Rights Act of 1964, the rise of Black Power, attitudes to Zionism, affirmative action and more. We will try to answer the question how the experiences of both groups both overlapped and led to conflict.
Fall JUDS1753 S01 16322 TTh 2:30-3:50(03) (R. Rojanski)

JUDS 1801. Jewish Magic.
This course is designed to introduce you to a wide variety of texts representing magical beliefs and practices found in mainstream and marginal Jewish life from the biblical and rabbinic through the early modern periods (with some present-day comparison). It is also designed to acquaint you with some of the kinds of literature (legends, liturgical compositions, chronicles, exempla, amulets, magic recipe books) that describe magical practices with varying degrees of sympathy. One question we will ask in our discussions is how the literary representations of magic relate to actual magical beliefs and practices of their time.
Spr JUDS1801 S01 25482 T 4:00-6:30(16) "To Be Arranged"

Section numbers vary by instructor. Please see Banner for the correct course reference number (CRN) to use when registering for this course.

JUDS 1975. Honors Thesis Semester I.
First of two semesters working with a faculty member in the Program in Judaic Studies to complete an honors thesis. Instructor permission required.

JUDS 1976. Honors Thesis Semester II.
Second of two semesters working with a faculty member in the Program in Judaic Studies to complete an honors thesis. Instructor permission required.

JUDS 2450. Exchange Scholar Program.

Center for Language Studies

American Sign Language

SIGN 0100. American Sign Language I, II.
An immersive approach using authentic communication inside and outside of the classroom will be used to develop introductory communicative skills in American Sign Language. Authentic materials from diverse sources will provide an overview of the American Deaf community. Basic media literacy skills will be taught.
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 SIGN 0200 covers the entire year and is recorded as the final grade for both semesters.
Fall SIGN0100 S01 15211 MTWThF 12:00-12:50 (T. Riker)
Fall SIGN0100 S02 15522 Arranged (T. Riker)
SIGN 0200. American Sign Language I, II.
Introduces basic ASL conversation. Features core vocabulary, common signing phrases, non-manual components (facial expression, body postures), signing space, fingerspelling, numbers, loan signs, cultural protocols, rules of ASL grammar and structure. Deaf cultural behavior is introduced in the classroom and through readings, videotapes, and Deaf community events.
This is the second half of a year-long course. Students must have taken SIGN 0100 to receive credit for this course. If SIGN 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 SIGN0200 S01 24180 MTWTh 12:00-12:50 (T. Riker)
Spr SIGN0200 S02 24217 Arranged (T. Riker)

SIGN 0300. American Sign Language III.
This course will use an immersive approach incorporating authentic communication to develop intermediate communicative skills in American Sign Language. Through authentic materials from diverse sources, students will engage in classroom discussion and produce media to explore Deaf cultural topics related to family dynamics, language and literacy, and education. Prerequisite SIGN 0200 or placement interview.
Fall SIGN0300 S01 15212 TTh 1:00-2:20(10) (T. Riker)

SIGN 0400. American Sign Language IV.
Intensive use of expressive and receptive skills in complex grammatical structures, advanced classifiers, dialogues, and storytelling techniques. Discussion of social factors that give rise to code-switching; regional and ethnic sign variations; social, political, and cultural evolution of U.S. Deaf community. Interaction with Deaf community in directed and non-directed activities. Prerequisite SIGN 0300 or placement interview.
Spr SIGN0400 S01 24181 TTh 1:00-2:20(08) (T. Riker)

SIGN 0500. American Sign Language V.
This course increases American Sign Language skills by introducing advanced vocabulary and grammar in various registers and settings, including informal and formal discussions, presentations, and storytelling. Through authentic materials from diverse sources, students will explore American Sign Language literature and oral traditions. Prerequisite SIGN 0400 or placement interview.
Fall SIGN0500 S01 15213 TTh 2:30-3:50(03) (T. Riker)

Independent study in an area of special interest to the student, with close guidance by a member of the faculty, and leading to a major paper/project. Required of candidates for honors, and recommended for third year students. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Prerequisite: SIGN 0500 or instructor permission. DPLL

Arabic

ARAB 0100. First-Year Arabic.
Builds basic listening, speaking, reading, and writing skills, introducing the Arabic language in its cultural environment. Five contact hours per week, with an emphasis on grammar and communication, plus written, audio, and video assignments outside of class. 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 ARAB 0100 covers the entire year and is recorded as the final grade for both semesters. If course is full, please sign the wait list in Room 205, 195 Angell Street. Enrollment limited to 18.
Fall ARAB0100 S01 16391 MW 9:00-9:50(02) (M. Christoff)
Fall ARAB0100 S01 16391 TTh 9:00-10:20(02) (M. Christoff)
Fall ARAB0100 S02 16392 TTh 10:30-11:50(13) (A. Hassan)
Fall ARAB0100 S02 16392 MW 11:00-11:50(13) (A. Hassan)
Fall ARAB0100 S03 16393 MW 2:00-2:50(03) (A. Hassan)
Fall ARAB0100 S03 16393 TTh 2:30-3:50(03) (A. Hassan)
Fall ARAB0100 S04 16394 MW 1:00-1:50(10) (A. Hassan)
Fall ARAB0100 S04 16394 TTh 1:00-2:20(10) (A. Hassan)

ARAB 0200. First-Year Arabic.
Builds listening, speaking, reading, and writing skills, at the low intermediate level of Arabic proficiency. Five contact hours per week, with an emphasis on grammar and communication, plus written, audio, and video assignments outside of class. This is the second half of a year-long course. Students must have taken ARAB 0100 to receive credit for this course. If ARAB 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. Enrollment limited to 18.
Spr ARAB0200 S01 25069 MW 9:00-9:50(01) (M. Christoff)
Spr ARAB0200 S01 25069 TTh 9:00-10:20(01) (M. Christoff)
Spr ARAB0200 S02 25070 TTh 10:30-11:50(09) (A. Hassan)
Spr ARAB0200 S02 25070 MW 11:00-11:50(09) (A. Hassan)
Spr ARAB0200 S03 25071 MW 2:00-2:50(11) "To Be Arranged"
Spr ARAB0200 S03 25071 TTh 2:30-3:50(11) "To Be Arranged"
Spr ARAB0200 S04 25072 MW 1:00-1:50(08) "To Be Arranged"
Spr ARAB0200 S04 25072 TTh 1:00-2:20(08) "To Be Arranged"

ARAB 0300. Second-Year Arabic.
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. Five contact hours weekly, plus written, audio, and video assignments outside of class. Prerequisite: ARAB 0200. 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 ARAB 0400 covers the entire year and is recorded as the final grade for both semesters. If course is full, please sign the wait list in Room 205, 195 Angell Street.
Fall ARAB0300 S01 16396 MW 10:00-10:50(13) (M. Christoff)
Fall ARAB0300 S01 16396 TTh 10:30-11:50(13) (M. Christoff)
Fall ARAB0300 S02 16397 MW 1:00-1:50(10) (M. Faiza)
Fall ARAB0300 S02 16397 TTh 1:00-2:20(10) (M. Faiza)
Fall ARAB0300 S03 16398 Arranged "To Be Arranged"

ARAB 0400. Second-Year Arabic.
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. Five contact hours weekly, plus written, audio, and video assignments outside of class. Prerequisite: ARAB 0300. This is the second half of a year-long course. Students must have taken ARAB 0300 to receive credit for this course. If ARAB 0300 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. Enrollment limited to 18.
Spr ARAB0400 S01 25073 MW 10:00-10:50(09) (M. Christoff)
Spr ARAB0400 S01 25073 TTh 10:30-11:50(09) (M. Christoff)
Spr ARAB0400 S02 25074 MW 1:00-1:50(08) "To Be Arranged"
Spr ARAB0400 S02 25074 TTh 1:00-2:20(08) "To Be Arranged"
Spr ARAB0400 S03 25075 Arranged "To Be Arranged"

ARAB 0500. Third-Year Arabic.
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. Four contact hours weekly. Prerequisite: ARAB 0400.
Fall ARAB0500 S01 16487 MTWTh 12:00-12:50 (M. Faiza)
Fall ARAB0500 S02 16488 MTWTh 11:00-11:50 (M. Faiza)
ARAB 0600. Third-Year Arabic.
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. Four contact hours weekly. Prerequisite: ARAB 0500.
Spr ARAB0800 S01 25076 MTWTh 12:00-12:50 "To Be Arranged"
Spr ARAB0800 S02 25077 MTWTh 11:00-11:50 "To Be Arranged"

ARAB 0700. Advanced Arabic: Tales of the City.
The Arab city, current site of a major political upheaval, is the central theme of this integrated-skills language and culture course. Images of cities, as multifaceted as the people who inhabit them, animate cinema screens and daily news reports, inspire masters of writing, artists, and musicians, arouse political activism. By engaging the complex representation of the urban theme in contemporary discursive and art forms, this course will enhance students’ understanding of the dynamics of urban politics and culture in the Middle East, while building a content-specific lexicon and advanced communicative ability. Prerequisite: ARAB 0600, or an equivalent. Enrollment limited to 12.
Fall ARAB0700 S01 16489 MW 12:00-1:30 (M. Christoff)

ARAB 0800. Advanced Arabic Language + Culture.
This advanced content course entitled "Arab Women’s Voices" invites students to delve into the female experience in Arab societies as articulated in stories, poems, films, interviews, and art work by and about women. Their multiple voices speak of old traditions and new realities, love and marriage, work and childbearing, war and freedom. They explore the male-female dynamics, question aged customs, and assert their own aspirations. The investigation of that complex theme promotes advanced linguistic capacity and cross-cultural awareness. Prerequisite: ARAB 0700, or an equivalent. Enrollment limited to 12. DPLL Spr ARAB0800 S01 25078 MW 12:00-1:30 (M. Christoff)

ARAB 1990. Special Topics in Arabic Language, Literature, and Culture.
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.

ARAB 2450. Exchange Scholar Program.

Catalan
An open content course, which may be offered each semester. Offered as an Independent Study, this course will be adapted to students’ needs that are not currently covered by our curricular offerings.

English for Internationals
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 15271 MTWTh 12:00-12:50 (M. Leuchak)

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 15272 MTWTh 9:00-9:50 (B. Gourlay)
Fall EINT2300 S02 16395 MTWTh 12:00-12:50 (B. Gourlay)
Spr EINT2300 S01 24186 MTWTh 9:00-9:50 (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 15273 MW 9:00-9:50 (B. Gourlay)
Fall EINT2400 S02 15274 Th 9:00-9:50 (M. Leuchak)
Spr EINT2400 S01 24187 MW 9:00-9:50 "To Be Arranged"
Spr EINT2400 S02 24188 Th 9:00-9:50 "To Be Arranged"

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 15275 MTWTh 11:00-11:50 (B. Gourlay)
Fall EINT2500 S02 15276 MTWTh 11:00-11:50 "To Be Arranged"
Spr EINT2500 S01 24181 MTWTh 11:00-11:50 (M. Leuchak)
Spr EINT2500 S02 24192 MTWTh 12:00-12:50 "To Be Arranged"

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 15208 MTWTh/12:00-12:50 (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 24183 MTWTh/12:00-12:50 (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 15209 Th 4:00-4:50(06) (A. Koul)
Fall HNDI0300 S01 15209 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 24185 Th 4:00-4:50(06) (A. Koul)
Spr HNDI0400 S01 24185 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 15210 Arranged (A. Koul)
Spr HNDI1080 S01 24184 Arranged (A. Koul)
Language Studies

LANG 1900. Independent Study in Languages.
This course will meet the needs of students who are not studying one of the languages offered by the CLS faculty. Beginner, Intermediate or Advanced integrated skill course focusing on specific reading and writing topics selected by the faculty advisor and the student. Enrollment limited to 10.

LANG 2900. The Theory and Practice of Foreign Language Learning and Teaching.
The course is intended for graduate students in departments of foreign languages and literatures, who are interested in acquiring a theoretical understanding of second language acquisition (SLA) and language teaching methodologies and, by extension, developing a pedagogically sound teaching practice, grounded in research.

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.

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.

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.

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.

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.

Turkish

TKSH 0100. Introduction to Turkish Language and Culture I.
This is a proficiency oriented introductory course to Turkish Language and Culture. It adopts and integrated skills approach and is designed for students with little or no prior knowledge of Turkish. The course combines an emphasis on the development of communicative competences with an understanding of language structures and grammar as well as insights into Modern Turkish society and culture. 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. Enrollment limited to 18. DPLL

TKSH 0200. Introduction to Turkish.
This is the second semester of a proficiency oriented introductory course to Turkish Language and Culture. It adopts an integrated skills approach and is designed for students who have taken Turkish 0100 or have placed into the class after consultation with the instructor or a placement exam. The course combines an emphasis on the development of communicative competences with an understanding of language structures and grammar as well as insights into Modern Turkish society and culture.

TKSH 0300. Intermediate Turkish.
This course is the continuation of TKSH 0200 designed for students who are interested in learning about other cultures and languages. New students can place into it, after special arrangements with the instructor. The course places equal emphasis on the development of the four language skills: speaking, listening, reading and writing. It combines an emphasis on the development of communication skills with an understanding of language structures and grammar and insights into Modern Turkish society and culture.

TKSH 0400. Intermediate Turkish II.
TKSH 0400 is designed for students who have taken TKSH 0300 and already studied Turkish language to develop proficiency at an advanced level. New students can place into it, after special arrangements with the instructor. The course places equal emphasis on further developing four skills (reading, listening, speaking, and writing) at an advance proficiency level as well as advanced compound and subordinate structures in grammar. It combines an emphasis on the development of communication skills with an understanding of the language and insights into Modern Turkish society and culture.
Latin American and Caribbean Studies
LACA 1503K. Mosquito: Performing Epidemics in Latin America and the Caribbean.
This course offers an anthropological overview of the Aedes aegypti mosquito and its epidemics in Latin America and the Caribbean. Yellow fever, dengue, Zika and chikungunya fever are the mosquito-borne diseases. For almost two centuries, they have been the focus of scientific controversies and state health department actions for the control, prevention or surveillance of humans, animals, artifacts, and environment. Moreover, this course examines how epidemics, biosurveillance and their health public policies have been performed from the global infrastructures of science, technology, and their international corporations involving local and ecological entanglements. Class is taught 80% in Portuguese and 20% in English.
Fall  LACA1503K S01 17105  Th  4:00-6:30(04)  "To Be Arranged"

For Latin American + Caribbean Studies concentrators writing senior projects or honors theses.

For Latin American + Caribbean Studies concentrators writing senior projects or honors theses.

For upper-division students interested in pursuing topics in Latin American and Caribbean Studies not currently taught in the Brown curriculum. Students must have significant prior coursework, language skills, and sufficient background knowledge to put together a comprehensive reading list and to produce a final paper that meets the research requirement in the LACA concentration.
Class requirements include weekly meetings with the instructor, reading responses submitted before each meeting, and a self-assessment at the end of the semester by the student. The independent study will culminate in a research paper of sufficient depth and sophistication to meet the research requirement for the concentration in Latin American and Caribbean Studies.
Registration requires a comprehensive reading list developed by the student in consultation with the faculty member and a written agreement on course requirements. The concentration advisor’s approval is required if the course is to count toward the concentration.
No more than two (2) semesters of LACA 1994/1995 may be used toward concentration requirements in Latin American and Caribbean Studies.

For upper-division students interested in pursuing topics in Latin American and Caribbean Studies not currently taught in the Brown curriculum. Students must have significant prior coursework, language skills, and sufficient background knowledge to put together a comprehensive reading list and to produce a final paper that meets the research requirement in the LACA concentration.
Class requirements include weekly meetings with the instructor, reading responses submitted before each meeting, and a self-assessment at the end of the semester by the student. The independent study will culminate in a research paper of sufficient depth and sophistication to meet the research requirement for the concentration in Latin American and Caribbean Studies.
Registration requires a comprehensive reading list developed by the student in consultation with the faculty member and a written agreement on course requirements. The concentration advisor’s approval is required if the course is to count toward the concentration.
No more than two (2) semesters of LACA 1994/1995 may be used toward concentration requirements in Latin American and Caribbean Studies.

Literary Arts
LITR 0100A. Introduction to Fiction.
A workshop for first year students, introducing them to the art of writing fiction. This course is reading and writing intensive. Enrollment limited to 17. S/NC required. FYS WRIT
Fall  LITR0100A S01 15460 F  3:00-5:30(11)  "To Be Arranged"
Fall  LITR0100A S02 16971 W  6:00-8:30PM  "To Be Arranged"
Spr  LITR0100A S01 24378 F  3:00-5:30(15)  "To Be Arranged"
Spr  LITR0100A S02 25522 Th  6:40-9:10PM  "To Be Arranged"

LITR 0100B. Introduction to Poetry.
A workshop for first year students, introducing them to the art of writing poetry. This course is reading and writing intensive. Enrollment limited to 17. S/NC required. FYS WRIT
Fall  LITR0100B S01 15461 F  3:00-5:30(11)  "To Be Arranged"
Spr  LITR0100B S01 24379 F  3:00-5:30(15)  "To Be Arranged"

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.
Fall  LITR0110A S01 15462 T  6:40-9:10PM  "To Be Arranged"
Fall  LITR0110A S02 15463 W  6:00-8:30PM  "To Be Arranged"
Fall  LITR0110A S03 15464 Th  6:40-9:10PM  "To Be Arranged"
Spr  LITR0110B S01 25412 M  6:00-8:30PM  "To Be Arranged"
Spr  LITR0110B S02 25413 T  6:40-9:10PM  "To Be Arranged"
Spr  LITR0110B S03 25414 W  6:00-8:30PM  "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 15465 M  6:00-8:30PM  "To Be Arranged"
Fall  LITR0110B S02 15466 T  6:40-9:10PM  "To Be Arranged"
Fall  LITR0110B S03 15467 Th  6:40-9:10PM  "To Be Arranged"
Spr  LITR0110B S01 25415 M  6:00-8:30PM  "To Be Arranged"
Spr  LITR0110B S02 25416 T  6:40-9:10PM  "To Be Arranged"
Spr  LITR0110B S03 25417 Th  6:40-9:10PM  "To Be Arranged"

LITR 0110D. Digital Language Art 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 15841 T  4:00-6:30(09)  "To Be Arranged"
Spr  LITR0110D S01 25418 M  3:00-5:30(13)  "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 S01 15843 T  4:00-6:30(09)  (A. Colarusso)
Fall  LITR0210A S02 15844 Arranged  "To Be Arranged"
Spr  LITR0210A S01 25420 W  3:00-5:30(10)  (J. Howard)
Spr  LITR0210A S02 25421 T  4:00-6:30(16)  "To Be Arranged"

LITR 0210B. Poetry Writing II.
Emphasis is placed on verse strategies, meter, rhythm, imagery and rhyme. Writing includes frequent exercises in various poetic traditions. See general course description above for course entry procedures for all intermediate workshops. Written permission required. S/NC. WRIT
Fall  LITR0210B S01 15845 M  6:00-8:30PM  "To Be Arranged"
Spr  LITR0210B S01 25422 W  6:00-8:30PM  "To Be Arranged"
LITR 0710. Writers on Writing Seminar.
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 limited to 19 first year students. FYS WRIT
Fall LITR0710 S01 15846 Th 4:00-6:30(04) (M. de la Torre)
Spr LITR0710 S01 25333 Th 4:00-6:30(17) (E. Sikelianos)

LITR 1010A. Advanced Fiction.
The writing of short stories or longer works 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. Written permission required. S/NC. WRIT
Fall LITR1010A S01 15847 T 10:30-1:00 (M. Steinbach)
Fall LITR1010A S02 16907 T 4:00-6:30(09) (H. Moody)
Spr LITR1010A S01 25329 T 10:30-1:00 (M. Steinbach)

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 15648 W 3:00-5:30(17) (M. de la Torre)
Spr LITR1010B S01 25322 M 3:00-5:30(13) (P. Nelson)

LITR 1010D. Advanced Digital Language Arts.
An advanced writing working for which participants produce, individually or in collaborative arrangements, a significant work of language-driven, digitally-mediated art in networked and programmable media. This work will be given historical and critical context, as participants become more aware of what it is they are doing when they use digital systems to write, or when they create instruments for and of writing. Throughout the course — and especially before final projects become the focus — there will be seminar-style reading and discussion: readings from other works of digital language art and from selected critical writing in the field. WRIT
Fall LITR1010D S01 15851 W 3:00-5:30(17) (J. Cayley)

LITR 1010G. Writing3D.
An advanced experimental workshop for writing in immersive 3D, introducing text, sound, spatial poetica, and narrative movement into Brown's Legacy Cave (now house in the Granoff Center for the Creative Arts) with links to the YURT (Yurt Ultimate Reality Theater in the Center for Computation and Vixualization). An easy-to-learn and easy-to-use application allows non-programmers to create projects on laptops and then to run them in immersive 3D audiovisuality 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. WRIT
Fall LITR1010G S01 15852 M 3:00-5:30(05) (J. Cayley)
Spr LITR1010G S01 24372 M 3:00-5:30(13) (J. Cayley)

LITR 1110N. Workshop for Potential Literature.
A novel without the letter “E”, 100,000-billion sonnets by permutation and texts that take the shape of a Mobius-Strip— all this time and more, as workshop participants try their hands in writing in response to problems created by and inspired by a group of writers engaged in strange constraints and procedures. Instructor permission required. S/NC. WRIT
Fall LITR1110N S01 16840 M 3:00-5:30(05) (P. Nelson)

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, Kesey, Joyce, McCullers, Morrison, Nabokov, O'Conner, Thompson, Walker, Spielberg, Woolf, Yamamoto as directed by Burton, Forman, Fellini, Gilliam, Huston, Jordan, Kurasawa, Lee, Potter, and others. Class and weekly screenings. Enrollment limited to 12. S/NC. WRIT
Fall LITR1110S S01 16834 Th 10:30-1:00 (M. Steinbach)

LITR 1150A. Ecopoetics in Practice.
What we have perpetrated on our environment has certainly affected a poet's means and material. But can poetry be ecological or display values that acknowledge the economy of interrelationship between human and non-human realms? Aside from issues of theme and reference, how might syntax, line break, or the shape of the poem on the page express an ecological ethics? How might poetry register the complex interdependency that draws us into a dialogue with the world? Readings, discussion, essays and creative writing. See general course description above for course entry procedures for all special topics workshops/seminars. Written permission required. S/NC. WRIT
Fall LITR1150A S01 16842 M 3:00-5:30(05) (E. Sikelianos)

LITR 1150B. The Foreign Home: Interdisciplinary Arts.
Project-centered workshop for exploration beyond one's “home” genre, whether in video, poetry, fiction, music, performance or visual arts. Contemporary and art-historical interdisciplinary works will ground our investigation into the tension between expertise and "beginner's mind". Collaborative and individual work expected. See general course description above for entry procedures for all special topics workshops/seminars. Written permission required. S/NC. WRIT
Spr LITR1150B S01 24376 T 10:30-1:00 (T. Field)

LITR 1150M. Short Fiction Experiments.
A course in fiction which pushes against the very definitions of stories and fictions. Using short forms, we will examine our habits and assumptions of story telling and engage in willful adventures of mind, spirit, and language. Prerequisites include a passion for trying everything and anything once. No prior writing experience needed. Written permission required. WRIT
Fall LITR1150M S01 15853 T 10:30-1:00 (T. Field)

LITR 1151U. Literatura Puertorriqueña: Cruce-Ficciones y Contra-Poemas.
The purpose of this course is to analyze the myriad ways Puerto Rico and the United States have influenced each other through literature, music, and art. In 1898, the island was ceded to the U.S. by Spain following the Spanish American war. Since then, an ongoing exchange (often one-sided) regarding the political status of the island and its people has informed a wealth of literary materials, musical hybridity, and radically avant-garde arts. WRIT
Spr LITR1151U S01 25498 T 4:00-6:30(16) (A. Colaruso)

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 16839 Th 4:00-6:30(04) (J. Howard)
Spr LITR1200 S01 24375 Th 4:00-6:30(17) (C. Maso)

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, Gilles Deleuze, and others. Enrollment limited to 20. Spr LITR1230E S01 25515 T 4:00-6:30(16) (J. Howard)

LITR 1231A. Time Mechanics: Poetry as Translation.
This seminar focuses on experimental translations and transcreations in the spirit of Spicer’s claim in After Lorca: “A poet is a time mechanic not an embalmer.” Various approaches to leading a text across the time and space divide will be studied. If for Pound to “make new” is to look elsewhere, for Zukofsky it’s to listen closely. If Hawkey’s Ventrakl posits that the poem’s decomposition over time, Bang gives us a current, self-obsolescing version of Dante’s hell. And while Hsia Yü’s poems stage the one-sided) regarding the political status of the island and its people has informed a wealth of literary materials, musical hybridity, and radically avant-garde arts. WRIT
Spr LITR1231A S01 25410 T 4:00-6:30(16) (M. de la Torre)
LITR 1231E. Rereading Writing.
We will study writing and, more generally, language art in terms of reading, both reexaming theories and practices of writing — in linguistics, the philosophy of language, and in the actual making of literature — and also by proposing that reading is constitutive of language regardless of its medium. What is reading, historically, theoretically, and in the digitally mediated future of culture? If reading brings language into being, then how should we read and what should we compose to be read? Readings from Sausure and Ong to Hayles, Derrida, and beyond. Optional critical-creative project. WRIT
Spr LITR1231E S01 24373 W 3:00-5:30(10) (J. Cayley)

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/NC.

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/NC.
Spr LITR1410A S01 25330 Th 10:30-1:00 (M. Steinbach)

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/NC.

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/NC.
Fall LITR2010A S01 15849 M 12:00-2:30 "To Be Arranged" Spr LITR2010A S01 24374 F 12:00-2:30 (C. Maso)

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/NC.
Fall LITR2010B S01 15850 W 12:00-2:30 (E. Sikelianos) Spr LITR2010B S01 25521 W 12:00-2:30 (S. Nakayasu)

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/NC.

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/NC.

LITR 2450. Exchange Scholar Program.

Mathematics

MATH 0050. Analytic Geometry and Calculus.
MATH 0050 and 0060 provide 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. May not be taken for credit in addition to MATH 0070 or MATH 0090. S/NC only.
Fall MATH0050 S01 16201 TTh 9:00-10:20(02) (T. Aougab)

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: MATH 0050 or written permission. May not be taken for credit in addition to MATH 0070 or MATH 0090. S/NC only.
Spr MATH0060 S01 24667 Th 10:30-11:50(09) (J. Conde Alonso)

MATH 0070. Calculus with Applications to Social Science.
A 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, equations, 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 0050 or MATH 0060 or MATH 0090. S/NC only.
Fall MATH0070 S01 16205 MWF 9:00-9:50(01) (A. Landman)

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, graphs, exponentials and logarithms, and differentiation and integration; additional to MATH 0050 or MATH 0090. May not be taken for credit in addition to MATH 0070 or MATH 0090. S/NC only.
Fall MATH0090 S01 16206 MWF 9:00-9:50(01) "To Be Arranged" Fall MATH0090 S02 16207 MWF 10:00-10:50(14) (D. Katz)
Fall MATH0090 S03 16208 MWF 12:00-12:50(12) "To Be Arranged" Fall MATH0090 S04 16209 TTh 10:30-11:50(13) "To Be Arranged" Fall MATH0090 S05 16210 MWF 2:00-2:50(07) "To Be Arranged" Spr MATH0090 S01 24670 MWF 11:00-11:50(04) (D. Katz) Spr MATH0090 S02 24671 MWF 2:00-2:50(07) "To Be Arranged"

MATH 0100. Introductory Calculus, Part II.
A continuation of the material of MATH 0090 including further development of integration, techniques of integration, and applications. Other topics include infinite series, power series, Taylor's formula, polar and parametric equations, and an introduction to differential equations. MATH 0090 or the equivalent are recommended for all students intending to concentrate in the sciences or mathematics. May not be taken for credit in addition to MATH 0050 or MATH 0060 or MATH 0070. S/NC only.
Fall MATH0100 S01 16221 MWF 11:00-11:50(16) (D. Katz) Fall MATH0100 S02 16222 MWF 12:00-12:50(12) "To Be Arranged" Fall MATH0100 S03 16223 MWF 1:00-1:50(06) "To Be Arranged" Fall MATH0100 S04 16224 MWF 2:00-2:50(07) "To Be Arranged" Fall MATH0100 S05 16225 TTh 10:30-11:50(13) "To Be Arranged" Fall MATH0100 S06 16379 MWF 9:00-9:50(01) "To Be Arranged" Spr MATH0100 S01 24676 MWF 9:00-9:50(02) "To Be Arranged" Spr MATH0100 S02 24677 MWF 10:00-10:50(03) (D. Katz) Spr MATH0100 S03 24678 MWF 12:00-12:50(05) "To Be Arranged" Spr MATH0100 S04 24679 MWF 2:00-2:50(07) "To Be Arranged"
MATH 0170. Advanced Placement Calculus.
Begin with a review of fundamentals of calculus and includes infinite series, power series, paths, and differential equations of first and second order. Placement in this course is determined by the department on the basis of high school AP examination scores or the results of tests given by the department during orientation week. May not be taken in addition to MATH 0100.

Fall MATH0170 S02 16237 TTh 9:00-10:20(02) "To Be Arranged"
Fall MATH0170 S03 16238 TTh 1:00-2:20(10) (O. Mandelshtam)

MATH 0180. Intermediate Calculus.
Three-dimensional analytic geometry. Differential and integral calculus for functions of two or three variables: partial derivatives, multiple integrals, line integrals, Green's Theorem, Stokes' Theorem. Prerequisite: MATH 0100, 0170, or 0190.

Fall MATH0180 S01 16239 MWF 12:00-12:50(12) "To Be Arranged"
Fall MATH0180 S02 16240 MWF 1:00-1:50(06) "To Be Arranged"
Fall MATH0180 S03 16247 MWF 2:00-2:50(07) "To Be Arranged"
Spr MATH0180 S01 24688 MWF 9:00-9:50(02) "To Be Arranged"
Spr MATH0180 S02 24689 MWF 11:00-11:50(04) "To Be Arranged"
Spr MATH0180 S03 24690 MWF 12:00-12:50(05) "To Be Arranged"

MATH 0190. Advanced Placement Calculus (Physics/Engineering).
Covers roughly the same material 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 MATH0190 S01 16261 MWF 11:00-11:50(16) "To Be Arranged"
Fall MATH0190 S02 16262 TTh 1:00-2:20(10) (W. Lam)

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, surface, 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 16250 MWF 9:00-9:50(01) "To Be Arranged"
Fall MATH0200 S02 16251 MWF 12:00-12:50(12) "To Be Arranged"
Fall MATH0200 S03 16254 MWF 1:00-1:50(06) "To Be Arranged"
Spr MATH0200 S01 24695 MWF 12:00-12:50(05) "To Be Arranged"
Spr MATH0200 S02 24696 MWF 1:00-1:50(06) "To Be Arranged"
Spr MATH0200 S03 24697 MWF 2:00-2:50(07) "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 16259 MWF 10:00-10:50(14) "To Be Arranged"
Fall MATH0350 S02 24670 TTh 2:30-3:50(03) (T. Aougab)

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 24702 MWF 1:00-1:50(06) "To Be Arranged"

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 MATH 0540 is a prerequisite for all 1000-level courses in Mathematics except MATH 1260 or MATH 1610. Recommended prerequisite: MATH 0180, MATH 0200, or MATH 0350. May not be taken in addition to MATH 0540.

Fall MATH0520 S01 16267 MWF 10:00-10:50(14) "To Be Arranged"
Fall MATH0520 S02 16268 MWF 11:00-11:50(16) (M. Nastasescu)
Fall MATH0520 S03 16269 TTh 9:00-10:20(02) "To Be Arranged"
Spr MATH0520 S01 24704 MWF 9:00-9:50(02) "To Be Arranged"
Spr MATH0520 S02 24705 TTh 10:30-11:50(09) "To Be Arranged"
Spr MATH0520 S03 24706 MWF 12:00-12:50(05) "To Be Arranged"
Spr MATH0520 S04 24707 MWF 1:00-1:50(06) "To Be Arranged"
Spr MATH0520 S05 24708 TTh 2:30-3:50(11) (W. Lam)

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 16270 MWF 1:00-1:50(06) "To Be Arranged"
Fall MATH0540 S02 16271 TTh 2:30-3:50(03) "To Be Arranged"
Spr MATH0540 S01 24709 MWF 10:00-10:50(03) (S. Treil)
Spr MATH0540 S02 24710 TTh 2:30-3:50(11) "To Be Arranged"

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 24714 TTh 9:00-10:20(01) (J. Conde Alonso)

MATH 1040. Fundamental Problems of Geometry.
This class discusses geometry from a modern perspective. Topics include hyperbolic, projective, conformal, and affine geometry, and various theorems and structures built out of them. Prerequisite: MA 0520, MA 0540, or permission of the instructor.

Spr MATH1040 S01 24715 TTh 10:30-11:50(09) (R. Kenyon)

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 16273 TTh 10:30-11:50(13) "To Be Arranged"

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 16275 TTh 1:00-2:20(10) "To Be Arranged"

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 24716 MWF 10:00-10:50(03) (B. Pausader)
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 16276 MWF 11:00-11:50(16) (S. Treil)

MATH 1140. Functions Of Several Variables.
See Functions Of Several Variables (MATH 1130) for course description. Prerequisite: MATH 1130 or instructor permission.

MATH 1230. Graph Theory.
This course covers important material about graph theory, such as spanning trees, network flow problems, matching problems, coloring problems, planarity, Cayley graphs, spectral theory on graphs, and Ramsey Theory. The emphasis will be on a combination of theory and algorithms. Depending on the instructor, connections to such fields as combinatorics, geometry, or computer science might be emphasized. Prerequisite: MATH 0180, 0200 or 0350 and MATH 0520 or 0540 are recommended. Enrollment limited to 40.
Spr MATH1230 S01 24717 TTh 9:00-10:20(01) (T. Aougab)

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 16277 TTh 2:30-3:50(03) (J. Conde Alonso)

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 16278 MWF 2:00-2:50(07) (A. Landman)

MATH 1410. 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.
Fall MATH1410 S01 16279 TTh 9:00-10:20(02) (R. Schwartz)

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 16280 TTh 2:30-3:50(03) (J. Hoffstein)
Spr MATH1530 S01 24718 TTh 2:30-3:50(11) (J. Hoffstein)

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 24719 TTh 10:30-11:50(09) (R. Schwartz)

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 24720 TTh 1:00-2:20(08) (M. Nastasescu)

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 16281 MWF 10:00-10:50(14) "To Be Arranged"

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 16282 TTh 10:30-11:50(13) (R. Kenyon)

MATH 1620. Mathematical Statistics.
Central limit theorem, point estimation, interval estimation, multivariate normal distributions, tests of hypotheses, and linear models. Prerequisite: MATH 1610 or written permission.
Spr MATH1620 S01 24721 TTh 1:00-2:20(08) (R. Kenyon)

MATH 1810A. Applied Algebraic Topology.
Topology is a powerful tool for identifying, describing, and characterizing the essential features of functions and spaces. In the recent years some of these methods have been adapted to study the shape of data collected from a range of different fields, including graphics and visualization, computational biology, etc. This course is an introduction to the basic concepts and topological structures behind these developments, focusing on persistent homology and mapper. Projects will involve using these methods to analyze and describe the shape of concrete data sets.
Fall MATH1810A S01 16311 TTh 1:00-2:20(10) "To Be Arranged"
Spr MATH1810A S01 24713 TTh 1:00-2:20(08) "To Be Arranged"

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.

Introduction to differential geometry (differentiable manifolds, differential forms, tensor fields, homogeneous spaces, fiber bundles, connections, and Riemannian geometry), followed by selected topics in the field.
Spr MATH2010 S01 24729 TTh 9:00-10:20(01) (J. Kahn)

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 16283 MWF 11:00-11:50(16) (D. Abramovich)

MATH 2060. Algebraic Geometry.
See Algebraic Geometry (MATH 2050) for course description.
Spr MATH2060 S01 24722 MWF 11:00-11:50(04) (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.
Fall MATH2110 S01 16284 TTh 9:00-10:20(02) (G. Daskalopoulos)

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 16285 TTh 10:30-11:50(13) (J. Kahn)

MATH 2260. Complex Function Theory.
See Complex Function Theory (MATH 2250) for course description.
Spr MATH2260 S01 24723 MWF 1:00-1:50(06) (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 16288 MWF 2:00-2:50(07) (B. Pausader)

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.
Fall MATH2380 S01 24724 MWF 11:00-11:50(04) (W. Strauss)

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 16287 TTh 1:00-2:20(10) (T. Goodwillie)

MATH 2420. Topology.
See Topology (MATH 2410) for course description.
Spr MATH2420 S01 24725 TTh 1:00-2:20(08) (T. Goodwillie)

MATH 2450. Exchange Scholar Program.
Fall MATH2450 S01 15154 Arranged 'To Be Arranged'

MATH 2510. Algebra.
Basic properties of groups, rings, fields, and modules. 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 16288 MWF 1:00-1:50(06) (M. Nastasescu)

MATH 2520. Algebra.
See Algebra (MATH 2510) for course description.
Spr MATH2520 S01 24726 MWF 2:00-2:50(07) (M. Chan)

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.
Fall MATH2530 S01 16289 MWF 10:00-10:50(14) (J. Silverman)

MATH 2540. Number Theory.
See Number Theory (MATH 2530) for course description.
Spr MATH2540 S01 24727 MWF 10:00-10:50(03) (J. Silverman)

MATH 2970. Preliminary Exam Preparation.
No description available.
Fall MATH2970 S01 15155 Arranged 'To Be Arranged'
Spr MATH2970 S01 24096 Arranged 'To Be Arranged'

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.
Fall MATH2990 S01 15156 Arranged 'To Be Arranged'
Spr MATH2990 S01 24097 Arranged 'To Be Arranged'

MATH XLIST. Courses of Interest to Graduate Students Majoring in Mathematics.

Medieval Studies

MDVL 0150C. The Medieval King Arthur (ENGL 0150C).
Interested students must register for ENGL 0150C.
Fall MDVL0150C S01 17172 Arranged 'To Be Arranged'

MDVL 0300F. Beowulf to Aphra Behn: The Earliest British Literatures (ENGL 0300F).
Interested students must register for ENGL 0300F.
Spr MDVL0300F S01 25721 Arranged 'To Be Arranged'

MDVL 0310F. Prose Sagas of the Medieval North (ENGL 0310F).
Interested students must register for ENGL 0310F.
Fall MDVL0310F S01 17173 Arranged 'To Be Arranged'

MDVL 0980G. The Search for King Arthur (HIST 0621B).
Interested students must register for HIST 0621B.
Spr MDVL0980G S01 25730 Arranged 'To Be Arranged'

MDVL 1211. Crusaders and Cathedrals: Europe in the High Middle Ages (HIST 1211).
Interested students must register for HIST 1211.
Spr MDVL1211 S01 25720 Arranged 'To Be Arranged'

MDVL 1310V. Chaucer: The Canterbury Tales (ENGL 1310V).
Interested students must register for ENGL 1310V.
Fall MDVL1310V S01 17174 Arranged 'To Be Arranged'

MDVL 1311E. History of the English Language (ENGL 1311E).
Interested students must register for ENGL1311E.
Spr MDVL1311E S01 25724 Arranged 'To Be Arranged'

MDVL 1325D. Desire and the Sacred (RELS 1325D).
Interested students must register for RELS 1325D.
Fall MDVL1325D S01 17137 Arranged 'To Be Arranged'

MDVL 1361J. Seminar in Old Norse-Icelandic Language and Literature (ENGL 1361J).
Interested students must register for ENGL 1361J.
Spr MDVL1361J S01 25722 Arranged 'To Be Arranged'

MDVL 1835A. Unearthing the Body: History, Archaeology, and Biology at the End of Antiquity (HIST 1835A).
Interested students must register for HIST 1835A.
Spr MDVL1835A S01 25729 Arranged 'To Be Arranged'

MDVL 1900Y. Medieval Manuscript Studies: Paleography, Codicology, and Interpretation (ENGL 1900Y).
Interested students must register for ENGL 1900Y.
Spr MDVL1900Y S01 25723 Arranged 'To Be Arranged'

Interested students must register for HIST 1963Q.
Fall MDVL1963Q S01 17171 Arranged 'To Be Arranged'

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.

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.

MDVL 2971I. New Perspectives on Medieval History (HIST 2971I).
Interested students must register for HIST 2971I.
Fall MDVL2971I S01 17139 Arranged 'To Be Arranged'
Middle East Studies

MES 1235. Policing and Imprisonment in the Modern Middle East. Policing figured prominently in recent events, from the self-immolation of Tunisian street vendor Mohamed Bouazizi to the rise of the Islamic State. Repressive regimes relied heavily on police, prisons, and criminal law to maintain power and authority. This course examines recent uprisings and ongoing conflicts, and questions of state and non-state violence. Major topics are: the role of Islam in law and criminal justice; the imposition of European colonial rule; the rise of police states; the production and maintenance of a gendered social order; non-state and informal mechanisms of maintaining "law and order"; and the role of law and security. Fall MES1235 S02 17061 TTh 6:40-8:00PM(15) (A. Winder)

MES 1290. War and Cultural Representation in the Modern Middle East. This is an overview of contemporary Arabic and Persian literatures and cinemas through war in literature and film originating from the Eastern Arab World, Iran and Afghanistan. Using contemporary works of prose fiction, poetry and film, we interrogate the various ways in which the people of the region have grappled, through literature and film, with some of the most brutal conflicts that the world has witnessed in the late twentieth and early twenty-first centuries. We will explore the Lebanese Civil War, the Israeli-Palestinian conflict, the Iran-Iraq War, Iraq since 1991, Afghanistan since 1979 and the current Syrian Civil War. While this course is open all students it is especially geared towards students concentrating in MES and who have upper-level reading/ translations ability in Persian or Arabic. Students at the advanced language level will do translation in lieu of a second paper. Fall MES1290 S01 17680 T 4:00-6:30(10) (A. Moosavi)

MES 170. Individual Research Project. 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 170 without this approval. 

MES 171. Senior Honors Thesis. Open only to Senior students accepted into the honors program in MES. Instructor permission required. WRIT

MES 193. Middle East Politics. The Middle East and North Africa has consistently dominated global headlines as one of the most penetrated regional state systems in the world. Analyses of the MENA region are often bound by this monolithic rubric that has shaped how we view and understand state-society relations across the region. We examine historic and contemporary dynamics that have shaped domestic, regional, and international politics and analyze issues relating to comparative politics and international relations of the region, issues relating to colonialism and state formation, institutional configuration, authoritarianism and regime typologies, the politics of oil, identity politics, and social and economic development. Spr MES193 S01 25554 W 3:00-5:30(10) (S. Mako)

MES 2000A. Decolonizing the Racialized Female Subject: Black and Indigenous Women’s Self-Making Under Empire. This study grapples with conceptions of freedom and humanity emergent in Black and Indigenous women’s practices under empire. Colonialism is prefixed on construction of an “other.” Aime Cesaire refers to this as “thingification,” whereby colonial subjects are dehumanized and the colonizer “decolonized.” Totalizing dehumanizing forms are resisted by praxes and epistemologies which challenge the prevailing symbolic order and assert the humanity of those regarded as subhuman. We will examine how epistemological and political contestations of the human inform discourses on freedom and sovereignty and interrogate how various categories of identity refract and re-frame conceptions of humanity, freedom, and sovereignty. 

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.

Modern Culture and Media

MCM 0150. Text/Media/Culture: Theories of Modern Culture and Media. An introductory course that will explore the three key terms "modern," "culture," and "media" through a variety of theories, historical narratives, and media objects. We will ask how different media—including print, photography, cinema, television, digital art, online video, archival practices, and social media—yield distinct modes of seeing, thinking, and feeling, structure the ways we act and engage with the common world, and communicate and collaborate. We will read semiotic theory, critical race studies, feminist, post-colonial, queer and political theory, and examine concepts such as textuality, visibility, and networks. Open to undergraduates only. WRIT Spr MCM0150 S01 24883 MW 1:00-1:50 (A. Azoulay)

MCM 0230. Digital Media. This course introduces students to the critical study of digital media: from surveillance to hacktivism, from cyberpunk fiction/films to art installations, from social media to video games. We will analyze the aesthetics, politics, protocols, history and theory of digital media. Special attention will be paid to its impact on relation to social/cultural formations, especially in terms of new media's "wonderful creepiness," that is, how it compromises the boundaries between the public and private, revolutionary and conventional, work and leisure, hype and reality. Fall MCM0230 S01 15758 MW 11:00-11:50 (W. Chun)

MCM 0260. Cinematic Coding and Narrativity. Introduces students to rigorous study 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. Attention to film theory in relation to questions of representation, culture, and society. Students become conversant with specific elements and operations of the cinematic apparatus (e.g. camerawork, editing, sound-image relations) and how they produce 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. Fall MCM0260 S01 15772 MW 1:00-1:50 (J. Copjec)

MCM 0700A. Introduction to the Production Image. The course will provide students with a basic introduction to digital sound and image acquisition and post-production, and to consider the particular capabilities of these digital technologies, especially as these relate to the production of meaning. Of particular interest will be the representational limits of these technologies at the intersection of science and art. Classes will be organized as workshop environments where extensive class time will be devoted to hands-on learning with digital film cameras, lighting, and digital sound recorders. There are no prerequisites for this class. Fall MCM0700A S01 15779 Th 1:00-3:50 "To Be Arranged"

MCM 0710A. Introduction to Filmic Practice: 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. Fall MCM0710A S01 16096 M 2:00-4:50 (L. Thornton) Spr MCM0710A S01 24488 T 10:00-12:50 "To Be Arranged"
MCM 0730B. TV/Not TV: Theory and Production.
This course examines both commercial television and non-commercial media forms, considering the dialogue and/or tensions between them. What are the critical potentials and political stakes of viewing TV and of making independent media? How can we re-write TV’s cultural codes by stimulating alternative readings, fostering new interpretive practices, creating different texts, or developing diverse modes and sites of distribution? Combining theory and practice (media studies, televisuality and anti-television screenings, and simple production assignments using available technologies), this course encourages students to read and critique commercial television through both analysis and their own creative media practices.
Spr MCM0730B S01 24490 Th 4:00-6:30(17) (A. Cokes)

MCM 0750B. Data Visceralization.
The body - our biological corpus, and its social, material, and technological extension - grounds our ability to sense and make sense. In ever-changing ways, the sensing and acting body is extensible. Apparatuses, networks, patterns, and affects are central in sculpting consciousness, addressability, and accountability. In contrast to Data Visualization, in which perspectival representations of data are arranged and optically received, Data Visceralization foregrounds information via translations that are physically experienced as part of the aesthetic perception of becoming. Social prostheses, props, and situations built and performed by participants in this course will disrupt habitual perception and enable active engagement.
Fall MCM0750B S01 15781 Th 10:00-12:50 (K. Dobson)

MCM 0750C. Subtitle Machines.
Participants in this production course will work with new materials and textile processes hands-on while engaging in contemporary discussions and debates on human-machine interfaces and extensions. We will design and construct soft machines wherein the components include new yams and materials. We will explore fibers, polymers, and yams for electrical applications, human performance, and environmental elements, among others. Body technology research areas such as motion tracking and biometric data analysis will be introduced. Throughout the semester, students will work on a series of short projects as well as a final individual or collaborative work.
Spr MCM0750C S01 24377 M 10:00-12:50 (K. Dobson)

MCM 0780A. Soundtracks: Sound Production and Visual Media.
A production course that examines the role of sound in film, video, and installation forms. The listening assignments and visual media screenings will foreground the usage of audio in the works of selected artists/filmmakers. The course also considers works of sound art. Readings by sonic theorists and producers will examine the possibilities of sound production as a key register of modern social and aesthetic experience. Class members should have completed at least one time-based media class. Students are expected to be competent technically.
Fall MCM0780A S01 16094 Th 4:00-6:50 (A. Cokes)

MCM 0902G. Visual Cultures of Repair and Resistance.
This seminar will explore the poetics and politics of cultural production that engages war, state violence, and intersecting labor inequalities through processes of repair and resistance. Using methodologies of visual culture analysis, we will examine how images shape the political imagination, paying special attention to the politics of looking, witnessing, and (not) being seen. Addressing various historical and political contexts, we will focus on a few primary loci: Afrofuturism and what Saidiya Hartman calls “critical fabulation” in the “afterlife of slavery”; acts of witnessing and speculation in Palestine-Israel; and transnational resistance to surveillance, drone warfare, and global networks of control.
Fall MCM0902G S01 17109 T 4:00-6:30(09) (K. Estefan)

Shortly before the formation of the Soviet Union in 1922, Lenin told his cultural commissar Anatoli Lunacharsky, “you must remember that all the arts for us the most important is cinema.” This famous pronouncement inaugurated an unrivaled period of experimental Soviet film production, but it also testifies to the exceptional relationship between cinema as an art form of the masses and political revolutions of the twentieth century. This course examines the concept of revolution in relation to a global array of cinematic modes and practices, attending specifically to the forms of political representation and the textual embodiment of affect.
Spr MCM0902H S01 25658 F 3:00-5:30(15) (X. Guan)

MCM 0902I. Never Work! History, theory and media of work and its refusal.
This course attempts to clarify some of the intricacies of the category of work and examine the role of media in its articulation. We will explore the characterization of historical epochs and articulation of theoretical binaries that have contributed to a contemporary understanding of labor and productivity: the transition from feudalism to capitalism, idleness and leisure, productive and reproductive labor, etc. Throughout the course we will explore both media produced with the intent to glorify, enforce and structure work as well as media intended to reflect critically on conditions of labor and instigate work refusal.
Fall MCM0902I S01 17114 F 3:00-5:30(11) (A. Austin)

MCM 1203F. The Aesthetics of Political Cinema: Montage, Political Modernism, and Beyond.
In the 1920s, Russian filmmakers with political concerns blended mass cinema and innovative avant-garde and modernist filmmaking styles. Their most famous filmmaker, Sergei Eisenstein, elaborated his concept of montage to explain his ideas of cinema. This course will examine the heritage and strategies of political filmmaking which draws on modernist aesthetics, beginning from the montage filmmaking of the 1920s. Some emphasis on 1920s-30s and 1960s-70s, but not limited to those years. Work by filmmakers such as Eisenstein, Vertov, Brecht, Ivens, Capra, Godard, Marker, Oshima, Tavianis, Kluge, Fassbinder, Akerman, Rainer, Mulvey, Soltanas, Hondo, Gerima, M.Moore, Oppenheim, and/or others.
Spr MCM1203F S01 24369 Th 1:00-2:20(08) (P. Rosen)

MCM 1204D. Politics of Chinese Cinemas.
Focusing on films produced since 1949, this course explores how “Chinese cinema” delimits a field of political contest, a global arena for antagonism over the meaning of revolution, the definition of art, the reach of propaganda, the articulation of gender, and the boundaries of culture. We begin with an examination of cinema in the Maoist PRC, moving on to a discussion of China’s international Cold War presence, and finally to contemporary themes of independent film production, women’s and queer cinema, and the place of Hong Kong and Taiwan in the shadow of the PRC’s “rise.”
Fall MCM1204D S01 17111 TTh 2:30-3:50(03) (H. Chen)

MCM 1505P. Channeling Race: Television and Race in America.
Our era has been called both “post-television” and “post-racial,” yet images that define and are defined by (mis)understandings of race fill our screens (whether on TV sets or other means for disseminating TV). Formations of television and race not only remain pressing concerns but are intertwined, mutually constructing one another. This course explores how notions of race have been mediated and how media have figured race. Topics include: stereotype analysis; television history and Civil Rights; scandal and crisis; intersections of gender and sexuality; consumerism and commodification; racial representation across TV genres (comedy, drama, sports, reality TV), and new media possibilities.
Fall MCM1505P S01 16120 Th 4:00-6:30(04) (L. Joyrich)
MCM 1505R. Film Noir and the Post-War City.
In the mid 40s, as Hollywood studios were being dismantled, a new genre of film suddenly emerged. Dark, in terms of mood and lighting; featuring lethal women, wielding a weaponized sexuality; and set prominently in cities eerily empty and unmappable, these films were appropriated labeled noir. The first part of the seminar will examine key films of the genre. The second will examine noir’s legacy in US and foreign films in which social, racial, political, and economic problems are figured as crises of urbanism. Spr MCM1505R S01 24560 M 3:00-5:30(13) (J. Copjec)

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 crucial 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.
Fall MCM1700F S01 15783 W 10:00-12:50 (A. Cokes)

MCM 1700Z. What is Happening to Narrative?
An advanced media production seminar about the impression of digital technology on the practice of media based storytelling. We begin with questions: are we still interested in telling stories? What kinds of stories do we tell? Are there narratives specific to particular technics? What happens when technology makes things “easier?” We explore forms that work well online, on smart devices, or in theaters and TV. This workshop includes group experiments and a major individual project that may be linear, installation, or interactive in format. Projects should function as a stimulus and a challenge to conventional practices of duration-based narrative.
Fall MCM1700Z S01 15785 W 2:00-4:50 (L. Thomson)

MCM 1701F. Machine Lab.
In this theory and production course, we will explore the perspectives made manifest in domestic, personal, and social machines that have made it to, or close to, market — examples include social media platforms, personal digital assistants, personal health-tracking wearables, home appliances, artificial limbs, companion machines, self-driving cars — critiquing and discussing the diverse historical and cultural forces and privileges that shape the making of a technical system and the reception and adoption of each piece of technology. And, we will design and build machines that question or counter or address that not addressed by contemporary machines. D PLL Spr MCM1701F S01 24371 W 9:00-11:50 (K. Dobson)

Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Time dedicated to the project should fall within the recommended range for independent studies (10-20 hours per week).
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. Eighth semester students only. Time dedicated to the project should fall within the recommended range for independent studies (10-20 hours per week).

MCM 2100V. Sex. What is it? Why does it matter?
We are witnessing a policing of sexuality on a grand scale. The premise of this seminar is that the effort to demarcate its boundaries serves a larger agenda of eradication. Before one can ask “why?,” the “what” question must first be addressed. We will approach sex, then, as an ontological matter, as a question of being. Our purpose is to de-localize and de-minimize sexuality through appeals to, and strong readings of, both psychoanalytic and philosophical texts. This course is for Graduates only. Upperclass undergraduates require instructor’s permission.
Fall MCM2100V S01 16184 T 1:20-3:50 (J. Copjec)

MCM 2110R. Reading for Form.
This course investigates the intersection of two theoretical problematics: the renewed interest in questions of literary and cultural form, including the New Formalism, and contemporary theories that ask: what is it to read? We will interrogate the tendency of investigations of form to displace or evade the critical force of reading, the impulse of theories of reading to bracket the persistence of form, and the possibilities of reading for form. Topics include: reading effects, the plasticity of form, the other reader, the unspoken, valorizations of surprise, and theorists from Althusser, Sedgwick, and Felski to Marcus and Best, Spivak, and Levine. This course is for Graduates only. Upperclass undergraduates require instructor’s permission.
Spr MCM2110R S01 24559 T 1:20-3:50 (E. Rooney)

MCM 2120L. Aesthetics, Politics, and Medium(s) in Contemporary Film Theory.
Study of contemporary debates, new conceptions and repositioning of old conceptions in recent (post-1990) film theory. Will involve approaches and issues such as post-Marxisms and new Marxisms; vitalism; cognitivism; history and modernity after post-modernism; globalization and identities; cinema and new media technologies/networks; the fate of specificities; cinematic referentiality and new/old spectactors; status of classical film theory; etc. All in relation to politics of aesthetic epistemologies and situatedness. Readings from theorists such as Andrew, Bao, Bordwell, Casetti, Comolli, Doane, Elsaesser, Gunning, Hansen, Jameson, Keeling, Koch, Marks, Morgan, Mulvey, Ndalianis, Rancière, Rodowick, Shaviro, Sobchak, Williams, Zhang.
Spr MCM2120L S01 24557 F 2:00-4:30 (P. Rosen)

MCM 2450. Exchange Scholar Program.
Fall MCM2450 S01 15157 Arranged ‘To Be Arranged’

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. Time dedicated to the project should fall within the recommended range for independent studies (13-20 hours per week).

MCM 2990. Thesis Preparation.
No description available.
Fall MCM2990 S01 15158 Arranged ‘To Be Arranged’
Spr MCM2990 S01 24098 Arranged ‘To Be Arranged’

Music

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 roles of industrialization, migration, urbanization, and media dissemination in driving musical change. Enrollment limited to 19 first year students. DLL FY S WRIT
Fall MUSC0021F S01 16770 TTh 1:00-2:20(10) (C. Tucker)
MUSC 0550. Theory of Tonal Music

Prerequisite: MUSC 0550 or permission of the instructor.

Fall MUSC0550 S01 16758 Th 4:00-6:30 PM (M. McGarrell)
Spr MUSC0550 S01 25241 TTh 10:30-11:50 AM (D. Gooley)

MUSC 0560. Theory of Tonal Music

Prerequisite: MUSC 0550 or permission of the instructor.

Fall MUSC0560 S01 16857 M W 6:30-8:20 PM (L. Jiorle-Nagy)
Spr MUSC0560 S01 25392 TTh 10:30-11:50 AM (E. Tomassi)

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 16858 TTh 7:15-9:45 PM 'To Be Arranged'

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 16858 TTh 7:15-9:45 PM 'To Be Arranged'

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 16859 W 6:00-8:20 PM (M. McGarrell)
Fall MUSC0620 S01 16859 M 6:00-7:20 PM (M. McGarrell)

MUSC 0630. Jazz Band

Half credit each semester. A practical study of jazz from the 1920s to the present through coaching, rehearsals, and performances. 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 16916 Th 6:10-7:20 PM (M. McGarrell)
Fall MUSC0630 S01 16916 M 7:30-8:50 PM (M. McGarrell)
Fall MUSC0630 S02 16926 T 8:00 PM-9:20 PM (M. McGarrell)
Fall MUSC0630 S03 16927 W 2:00-3:20 PM (M. McGarrell)
Fall MUSC0630 S04 16928 W 4:00-5:20 PM (M. McGarrell)
Fall MUSC0630 S05 16929 F 4:00-5:20 PM (M. McGarrell)
Fall MUSC0630 S06 16930 T 12:00-1:30 PM (M. McGarrell)

MUSC 0570. Jazz and Pop Harmony

For students with knowledge of rudiments of music, including scales, intervals, key signatures, rhythm and meter. Keyboard skills strongly recommended. Intensive study of chord scales, chord progressions, modulation, voice leading, melody writing, harmonization, reharmonization, chord symbols, and lead sheet construction. Lab sessions will focus on ear training, keyboard exercises, and sight singing. Emphasis will be on the vocabulary of jazz theory and the repertoire will be American popular song

Spr MUSC0570 S01 25392 TTh 10:30-11:50 AM (E. Tomassi)
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. Spr 25328 M 4:00-6:30(17) (M. McGarrell)

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 25535 W 5:00-7:20 (M. Obeng)

MUSC 0642. World Music Ensemble. This ensemble focuses on global percussive and song traditions, especially those of the African diaspora (based on instructor’s vast musical experiences). Here western instrumentalists fuse with traditional musicians from every culture: bongo, gyl, ukulele, tabla, etc. Students will grow and develop their musical skills by learning new techniques on their own instrument, exploring a range of repertoire representing genres such as highlife, reggae, salsa, Afrobeat, Afro-jazz, and global fusions. There will be unique opportunities to work on improvisation taking influence from Steve Reich, Tito Puente, Randy Weston, Hugh Masekela, Paul Simon, Miriam Makeba, Ghanaba, and Milton Nascimento. DPLL

Fall 25683 M 7:00-9:00PM (M. Obeng)

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 16973 T 6:00-9:00PM (M. Perciman)

MUSC 0651. Javanese Gamelan. See Javanese Gamelan, MUSC0650, for course description. Enrollment limited to 18 students. Spr 25536 T 6:00-8:50PM (M. Perciman)

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 16974 T 7:00-8:50PM 'To Be Arranged'

MUSC 0671. Old-Time String Band. See Old-Time String Band (MUSC 0670) for course description. Enrollment limited to 20 students. Spr 25537 T 7:00-8:50PM 'To Be Arranged'

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 16975 Arranged 'To Be Arranged'

MUSC 0681. Chamber Music Performance. See Chamber Music Performance (MUSC 0680) for course description. Spr 25538 Arranged 'To Be Arranged'

MUSC 0810. Applied Music Program: Instruction in Vocal or Instrumental Music. 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.

MUSC 0930. Romantic and Modern Music. A history of European and American art music from Beethoven to the Postmodernists. Prerequisite: MUSC 0550 or permission of instructor. Spr 25242 TTh 2:30-3:50(11) (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 16805 MWF 2:00-2:50(07) (A. Cole)

MUSC 1011. Advanced Musicianship II. Continuation of MUSC 1010. Prerequisite: MUSC 1010 or permission of the instructor. Spr 25208 MWF 2:00-2:50(07) (A. Cole)

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. Fall 16802 TTh 1:00-2:20(10) 'To Be Arranged'

MUSC 1100. Introduction to Composition. Composition students begin by using technical resources developed in their previous theoretical studies. Analysis and discussion of contemporary music provides examples of alternatives to traditional compositional strategies, which students integrate into later assignments. A study of contemporary notational practices and computer-based manuscripting and sequencing is also included. Prerequisite: MUSC 0560 or permission of the instructor. Enrollment limited to 20 students. Fall 16806 T 4:00-6:30(09) 'To Be Arranged'

MUSC 1110. Seminar in Composition. This is a seminar-based course with a creative component focusing on specific compositional techniques such as writing transitions and motivic development, and writing for specific kinds of ensembles. These techniques are applicable to all kinds of music, from concert music to popular genres. The course will also address aesthetic issues, trends and influences and how they affect living composers’ individual voices. Besides studying notated repertoire from the concert tradition, we will also examine approaches to film scoring, improvisation, and environmental sounds outside of the traditional concert hall. Spr 25228 M 3:00-5:30(13) 'To Be Arranged'

MUSC 1130. Jazz Composition and Arranging. A review of jazz theory topics, including rhythmic structures, scales and modes, harmonic progressions and substitutions, improvisation techniques, forms and development. Weekly writing assignments for two to five parts with rhythm section accompaniment. Students compose and orchestrate three works for small and large jazz ensembles. Guest composers review students’ compositions and various Brown jazz bands rehearse and record them. Prerequisites: MUSC 0550. Spr 25239 Th 4:00-6:30(17) (M. McGarrell)

MUSC 1200. Seminar in Electronic Music: Recording Studio as Compositional Tool. 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 25321 TTh 2:30-3:50(11) (J. Moses)
MUSC 1210. Seminar in Electronic Music: Real-Time Systems. 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.

Spr MUSC1210 S01 25320 W 3:00-5:30(10) (J. Rovan)

MUSC 1240I. Building Musical Instruments. In Building Musical Instruments, we will study and create expressive musical sound by building acoustic, analog, and digital instruments. Using sonic goals as inspiration for design features, we will build handheld acoustic instruments, contact microphones, basic synthesizers, and digital controllers, and we will consider the ways in which these distinct objects can work together to form a musical performance system. Topics include: musical listening and design, resonance of different materials, soldering, breadboarding, reading a basic schematic diagram, creating an enclosure, and expressive interaction with instruments. No prerequisites. Maximum enrollment: 12.

Fall MUSC1240I S01 16763 TTh 10:30-11:50(13) (K. Warren)

MUSC 1260. Seminar in Electronic Music: Advanced Studio Techniques. This course will focus on developing and reinforcing 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 sound synthesis and processing, spatialization, and recording techniques. Through a series of projects and focused study, students will expand their knowledge and craft, and will provide each other with a forum for exploring their creative studio work. MUSC 1200 is a prerequisite, and preference will be given to students who have also taken MUSC 1210, and/or 1250.

Fall MUSC1260 S01 16781 TTh 2:30-3:50(03) (J. Moses)

MUSC 1280. Electronic Music Aesthetics, Perception and Analysis. This advanced production seminar investigates new ideas and developments in electronic music from 1990-present. Consists of reading and discussion of seminal texts in the field, “deep” listening of exemplary work, and investigating various methods for analysis. Students respond to the materials with a series of creative composition assignments. The purpose is to provide a wide variety of perspectives that students integrate into their own artistic practice. Each student undertakes a term research project resulting in a paper, presentation and original composition. Open to upper-level undergraduates and graduate students with significant experience in electronic music. Enrollment limited to 16. By permission of the instructor. The final class list will be determined based on a questionnaire handed out on the first day.

Spr MUSC1280 S01 25312 TTh 2:30-3:50(11) (T. Winkler)

MUSC 1500A. Major Masters and Repertoires of Music: Bach. An examination of the life and work of Bach, including its place in German church music, views of his contemporaries and explanation of his manuscript and publishing history.

Fall MUSC1500A S01 16767 TTh 9:00-10:20(02) (L. Jodry)

MUSC 1500B. Major Masters of Music: Olivier Messiaen. This seminar explores Messiaen’s life, theoretical writings, and above all his music. Listening and analysis will focus on Messiaen’s idiomsyncratic harmonic and rhythmical language as well as performance practice issues. We will investigate Messiaen’s use of color, plainsong, “modes of limited transposition,” “personages rhythmique,” birdsong, serialism, Greek modes, and Indian ragas via representative works. We will also examine Messiaen’s formation and his legacy as teacher/composer/performer. Final project is either student performance/analysis or a theoretical/historical paper. Prerequisite MUSC 0560. Class size limited to 16.

Spr MUSC1500BS01 25240 W 3:00-5:30(10) (M. Steinbach)

MUSC 1710. Choral Conducting. An introduction to the art of conducting, with emphasis on choral training. A study of the relationship of gesture to sound will be combined with a survey of the choral repertoire, beginning with Gregorian Chant and covering renaissance motets, masses and madrigals, Baroque works with instruments, excerpts from Mozart’s vespers, 19th-century Romantic partsongs, and selected 20th-century. Issues of basic vocal production, warm-ups, rehearsal planning, editing, programming and concert production will also be included. Prerequisite: MUSC 0400 or 0550. Written permission required. May be repeated for credit.

Spr MUSC1710 S01 25313 W 3:00-5:30(10) (L. Jodry)

MUSC 1810. Applied Music Program: Instruction in Vocal or Instrumental Music. 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 https://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. This seminar offers an introduction to theory and method in ethnomusicology, a discipline grounded in ethnographic research and writing on musical practices. We will think, talk, and write about how and why people make music, as well as how and why ethnomusicologists go about their work. Students will undertake independent fieldwork projects, learning first-hand about both the special potential and the practical/ethical challenges of this type of research. Case studies highlight such issues as tradition, appropriation, postcolonial politics, and the ethics of fieldwork. Prerequisites: sophomore standing; MUSC 0550 or instructor permission.

Fall MUSC1900 S01 16757 TTh 10:30-11:50(13) (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 MUSC1905S S01 25311 W 3:00-5:30(10) (M. Perlman)

MUSC 1910. Music and Mind. Explores music perception in terms of auditory and cognitive processes such as auditory perception, memory, and learning. Lectures, discussions, and demonstrations review and analyze a body of scientific research on the psychology of music. Problem sets and a collaborative laboratory project.

Fall MUSC1910 S01 16772 TTh 2:30-3:50(03) (M. Perlman)

MUSC 1920. Music and Modern Life. 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; ecstatic 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. WRIT

Fall MUSC1920 S01 16769 W 3:00-5:30(17) (M. Perlman)
Explores how music mediates human relations to the natural world. Via case studies drawn from Western and non-Western societies, we will examine how theorists use sound to think through the difference between humans and non-humans; how composers and soundscape artists like Grieg, Ives, Westerkamp, and John Luther Adams shape listeners' perceptions of natural worlds and ecological systems; how people in Papua New Guinea, Mongolia, and the Bolivian Andes use sound to coordinate ecological awareness; how instruments are implicated in human relationships with the environment; and the ways that sound art helps to challenge longstanding distinctions between nature and its others.

**MUSC 1925. Musical Youth Cultures.**
A cross-cultural examination of music-oriented youth subcultures. Topics include youth-produced vs. youth-consumed music, club cultures, media technologies, online communities, minority and diaspora youth cultures, the mainstream vs. the underground, and ethnographic theory and method. This course requires critical engagement with a variety of popular music genres and cultures, encouraging students to examine their own musical production and consumption practices. Students will undertake individual ethnographic projects and will use web-based multimedia to present their findings. Some background in ethnomusicology, cultural anthropology, or media studies will be helpful (e.g., MUSC 1900, ANTH 0100, MCM 0100). Sophomore standing or instructor permission required. Enrollment limited to 25. DPLL

**MUSC 1960. Advanced Ghanaian Drumming and Dancing Ensemble.**
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.

**MUSC 1961. Advanced Ghanaian Drumming and Dancing Ensemble.**
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.

**MUSC 1970. Individual Independent Study.**
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.

**MUSC 1971. Digital Media and Virtual Performance.**
This seminar investigates digital media practices at the intersection of virtual and embodied experience, exploring overlapping genres of play, performance, pedagogy, and participatory culture. Topics include digital games, viral videos, online music and dance lessons, and the performative aspects of virtual communities. Theoretical approaches draw on scholarship in media ethnography, performance studies, human-computer interaction studies, gender studies, and ethnomusicology. We will give equal attention to production, circulation, and reception practices, and consider their contemporary convergence. The course requires critical engagement with a diverse range of media, genres, and cultural contexts, encouraging students to examine their own media practices.

**MUSC 1980. Group Independent Study.**
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.

**MUSC 2080A. Seminar in Ethnomusicology: Music and Technoculture.**
This seminar investigates ethnographic 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.

**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.

**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 work-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.

**MUSC 2545. Exchange Scholar Program.**
Fall: MUSC2450 S01 15159 Arranged 'To Be Arranged'
Fall: MUSC2450 S02 15160 Arranged 'To Be Arranged'

**MUSC 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.

**MUSC 2980. Reading and Research.**
Directed graduate research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**MUSC 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.

**Philosophy**

**PHIL 0010. The Place of Persons.**
We'll concentrate on some fundamental moral and metaphysical issues concerning ourselves as persons: What (if anything) gives us a moral status different from that of other animals? Do we have the sort of free will required for us to be morally responsible for our actions? What makes you one individual person or self at a particular time? What makes you today the same individual person as that obnoxious 5-year old who went by your name a few years back? WRIT

**PHIL 0030. Skepticism and Knowledge.**
What is knowledge? What is the extent and basis of one's knowledge about physical objects, other people, oneself, the future, morality, and religion? WRIT
PHIL 0100. Critical Reasoning.
This course is taught to students, not only how to extract and evaluate arguments from difficult texts, but also how to convey their own ideas and arguments. This version of the course aims to do so in two distinctive ways. First, it is empirically informed: it will highlight the ways in which we tend, according to psychologists, to make mistakes in our reasoning, and focus on techniques that will mitigate such mistakes. Second, we will engage, not only with philosophical discussions of classic and contemporary ethical issues, but also with work in epistemology and philosophy of language that allow us to be sophisticated consumers and producers of arguments.
Fall PHIL0100 S01 15382 MWF 10:00-10:50(14) (Y. Han)

PHIL 0110. The Nature of Fiction.
This course is concerned with philosophical questions arising from the concept of fiction. Topics will include: What makes a story a fiction? What are fictional characters? Are fictions "created"? Are fictions physical things, like books? How do fictions make us care about things we don’t even believe in? How do fictions affect our moral beliefs.
PHIL 0140. Introduction to Buddhist Philosophy.
This course will introduce students to the major concerns of Buddhist philosophy through the lens of contemporary philosophical themes. We will look at questions of personal identity, ethics, metaphysics, and free will, among others. There will be two related foci: one historical and one critical. We will first get clear on the various accounts, and then will evaluate the arguments offered. No prior knowledge of either philosophy or Buddhism is required; both will be introduced in tandem, so that students will leave the course with an introductory understanding of both Buddhist philosophy and the philosophical themes discussed.
Fall PHIL0140 S01 16994 MWF 11:00-11:50(16) (M. Renaud)

PHIL 0160. An Introduction to Pain and Suffering.
What are pain and suffering? Do they matter, and if so, why? What can we do about them? What should we do about them? The goal of this course is to answer those three central questions – what we might call the ‘what?’, ‘who cares?’, and ‘now what?’ – of pain and suffering. The course is designed to give an introduction to the philosophy, neuroscience, and psychology relevant to answering those questions, as well as to how they are addressed in Buddhism.
Spr PHIL0160 S01 25592 MWF 10:30-11:50(09) (L. Gurate)

PHIL 0170. College Ethics.
This course aims to give students an understanding of some of the key ethical issues relevant to their lives as college students. By completing the class readings and taking part in class discussions, students will become able not only to identify what the relevant ethical issues are, but to think about them from multiple sides. Moreover, by completing the class’s writing requirements, students will hone their skill at philosophical writing. In particular, students’ writing will give them important practice in identifying what's at issue, taking a clear position, making a well-reasoned argument, defusing objections, and interpreting alternative views charitably.
Spr PHIL0170 S01 25591 MWF 10:00-10:50(03) (H. Chalmers)

PHIL 0200G. Personal Identity and Moral Responsibility.
First year seminar on personal identity and moral responsibility.
Spr PHIL0200G S01 24414 TTh 1:00-2:20(08) (N. Arpaly)

PHIL 0350. Ancient Philosophy.
This course will introduce students to the major concerns of Greek philosophy, and how they are addressed by the Presocratics, Plato, Aristotle, and the Stoics. We will have two related ends: historical and critical. On the one hand, we will get clear so far as we are able what it is that these thinkers thought; on the other, it is important to evaluate their arguments. This course will emphasize the identification of the problems and the solutions to them that seemed pressing to these thinkers, especially if such problems seem alien to us. WRIT
Fall PHIL0350 S01 15797 MWF 12:00-12:50(12) (M. Gall)

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. There will be discussion and advice on ways to approach philosophical reading, research and writing. WRIT
Spr PHIL0360 S01 24355 MWF 11:00-11:50(04) (J. Broackes)

PHIL 0390. Global Justice.
Is it unjust that in some countries there is less wealth, worse health, etc., than those in other countries? Does this depend on whether the better off countries partly caused the disparity? Does it depend on whether the worse off are poor, or is it enough that they are relatively worse off? If there are global injustices, what obligations are there, and on whom do they fall, to remedy them? We will study (mostly) recent philosophical work on such questions, including attention to special contexts such as immigration, climate change, poverty, colonialism, secession, intervention, and war.
Spr PHIL0390 S01 24356 MWF 12:00-12:50(05) (D. Estlund)

PHIL 0400. Marxism.
In the first part of the course, we will examine Marx’s economic, political, and philosophical writings, focusing on his analysis of capitalism, his critique of liberal democracy, and his theory of history. Then in the second part, we will look at some recent attempts to renew and extend the Marxist tradition. WRIT
Fall PHIL0400 S01 15817 TTh 9:00-10:20(02) (C. Larmore)

PHIL 0450. The Meaning of Life.
This is an introductory course in ethics, with a focus on the question of what is the nature of the human good, or of a life lived well. Readings will be from classical sources (Aristotle, Epicurus, Kant, Nietzsche, Camus) as well as from contemporary authors. In investigating this question, the course will also introduce students to some of the main problems and positions in moral philosophy. Central concepts such as obligation, responsibility, pluralism, and moral knowledge will be discussed, but in the larger context of what is the nature of the good life. No prior work in philosophy will be presupposed. WRIT
Spr PHIL0450 S01 24341 MWF 10:00-10:50(03) (C. Larmore)

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 predication. Argumentation and reasoning may also be addressed at times. No previous experience with logic or philosophy is required.
Fall PHIL0540 S01 15383 MWF 10:00-10:50(14) (R. Heck)

PHIL 0550. Free Speech.
Freedom of speech is a challenging and controversial ideal. Legal questions are central, but the issues range into moral and political philosophy as well. We will study John Stuart Mill’s influential 19th century treatment of the idea, and then concentrate mostly on discussions within the last fifty years, including much that is on the cutting edge of current thinking about freedom of speech. Topics will vary, including such things as: political speech, art and offense, pornography, hate speech, protest, copyright, internet and new media, and campaign finance laws.
Fall PHIL0550 S01 17055 MWF 12:00-12:50(12) (D. Estlund)

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
Fall PHIL0560 S01 15792 MWF 2:00-2:50(07) (D. Estlund)
PHIL 0650. Psychology and Philosophy of Happiness.  
The course explores four fundamental questions about happiness: What is happiness—pleasure, life satisfaction, something else? How is happiness achieved—what are the myths and realities about what conduces to happiness? Can happiness be achieved—are we naturally well suited to be happy? Why pursue happiness—is it sufficient, or even necessary, for a good life? The course examines classic contributions from philosophy and psychology, the two disciplines that have studied happiness most extensively. Team-taught by professors from both philosophy and psychology, it invites students to compare and combine both approaches.

Fall PHIL0650 S01 24429 MWF 1:00-1:50(06)  (B. Regenster)

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. This course has no prerequisites.

Spr PHIL0880 S01 24353 TTh 2:30-3:50(11)  (F. Ackerman)

PHIL 0990F. Perception.  
Beginning with a reading of some classic works, and then moves on to contemporary work. Topics include: naive realist versus representational theories of sensory experience, the possibility that sensory experience is massively illusory (so that we already occupy a kind of “virtual reality”), the role of the brain in shaping sensory experience, and the alleged foundational role of sensory experience in knowledge. The focus will be on vision but we will also discuss other sense-modalities.

Fall PHIL0990F S01 15804 TTh 1:00-2:20(10)  (A. Pautz)

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 15809 W 3:00-5:30(17)  (D. Christensen)

PHIL 0991E. Identity and Authenticity.  
Identity and authenticity are typically thought to be closely allied in that being oneself (authentically) presupposes and depends on a conception of what one is (identity). However, close scrutiny of the ideal of authenticity and of the nature and development of identity exposes significant tensions between the two concepts. Drawing on sources from philosophy, psychoanalytic psychiatry, and sociology, the course will examine these concepts and the tensions that arise between them.

Fall PHIL0991E S01 16465 Th 4:00-6:30(04)  (B. Regenster)

PHIL 0991M. Mental Representation.  
Discussion of contemporary philosophical and scientific work on intentionality and mental representation. Topics will include: types of mental representation (language of thought, spoken language, perceptual states, images, cognitive maps, trees, object files, etc.), relations between mental representations and the world (reference, informational semantics, teleological semantics), the nature of perceptual content, the differences between perceptual representation and conceptually grounded representation, philosophical theories of concepts, psychological theories of concepts, theories of belief, ethological work on animal beliefs and concepts, and the nature of conscious thought (particularly, evidence pro and con the theory that thought consists of auditory imagery and articulatory imagery).

Spr PHIL0991M S01 25590 TTh 2:30-5:30(11)  (C. Hill)

PHIL 1001. Heidegger.  
This course focuses on Heidegger's masterpiece, Being and Time. Attention will also be given to the background in Husserl as well as to some of Heidegger's lecture courses in the 1920s. Prerequisite: Two courses in philosophy.

Fall PHIL1001 S01 15941 W 3:00-5:30(17)  (C. Larmore)

PHIL 1100D. Conditionals.  
In this course, we will look at different theories of what "if" means. Is it a truth-functional connective, like the material conditional used in logic? Do sentences of the form "if F, then Q" even have truth conditions? Some logic will be very helpful; some familiarity with philosophy of language also helpful.

Fall PHIL1100D S01 17054 M 3:00-5:30(05)  (J. Dreier)

PHIL 1250. Aristotle.  
A close study of Aristotle's major works: his metaphysics, philosophy of nature, philosophy of mind, and ethics. Readings from original sources (in translation) and contemporary secondary material. (Students wishing to read the texts in the original Greek should make arrangements with the instructor.)

Spr PHIL1250 S01 25258 Th 4:00-6:30(17)  (M. Gill)

PHIL 1290. Kant's Moral Philosophy.  
An introduction to the central themes of Kant's moral philosophy, including autonomy, freedom, happiness, obligation, and virtue. Kant's position in the history of moral philosophy will also be considered. Readings to include all of Kant's major writings in this field, thus Grundwerk for the Metaphysics of Morals, Critique of Practical Reason, Religion within the Boundaries of Mere Reason, and Metaphysics of Morals, as well as several essays and lectures. Work will include two short papers and one term paper.

Fall PHIL1290 S01 15840 TTh 2:30-3:50(03)  (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. The course deals with contemporary American novels and also with Malory. No pre-requisites.

Fall PHIL1400 S01 15800 TTh 2:30-3:50(07)  (F. Ackerman)

PHIL 1520. Consciousness.  
Topics will include: (i) the different features of various types of consciousness; (ii) dualist, physicalist, and representationalist theories of experience; (iii) the nature of pain and other bodily sensations; (iv) the nature of conscious thought; (v) the qualitative dimension of perception; (vi) introspection; (vii) the roles of attention and working memory in perceptual consciousness; (viii) blindsight, inattentional blindness, hemineglct, and related phenomena; (ix) unconscious; and (x) what it is for a state of consciousness to be unified.

Fall PHIL1520 S01 15802 MWF 1:00-1:50(03)  (C. Hill)

Decision theory is a formal apparatus for analyzing preferences and choices. Students learn the formal theory and then examine its foundations and philosophical implications. Specific topics: the role of causation in decision problems, the status of the axioms of the theory, problems of infinite utility, rudimentary game theory, social choice functions, utilitarianism as a theorem.

Spr PHIL1550 S01 24352 TTh 10:30-11:50(09)  (J. Dreier)

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

Spr PHIL1600 S01 24357 MWF 2:00-2:50(07)  (D. Estlund)

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 15803 TTh 2:30-3:50(03)  (N. Arpaly)
PHIL 1660. Metaphysics.
A survey of some major topics in metaphysics, with a particular focus on radical metaphysical arguments – arguments that call into question our most basic beliefs about the world. Topics covered may include: What is personal identity? Does personal identity matter? Do personal identity and consciousness matter? Is there right and wrong and objective value? Is there free will? Are there any good arguments for God? Prerequisite: at least one course in philosophy (2 or more preferred).
Fall PHIL1660 S01 15881 TTh 10:30-11:50(13) (A. Pautz)

PHIL 1700. Locke, Berkeley, Hume and Others.
A detailed study, both historical and critical, of central issues in Locke, Berkeley, and Hume. Topics include a selection from: innate ideas; substance; personal identity; abstract ideas; theory of language; perception, materialism, and idealism; induction and causation; and skepticism. Also includes some discussion of later critics of classical empiricism.
Fall PHIL1700 S01 15794 TTh 10:30-11:50(13) (J. Broackes)

PHIL 1750. Epistemology.
We’ll concentrate on several issues involving knowledge and rational belief: What is knowledge, and how does it relate to rational or justified belief? Does a person’s knowing something depend on non-evidential factors such as the practical importance of the person’s being correct? Does the justification of a person’s belief depend just on facts internal to the person—or might it depend on her environment? And what can we learn from thinking about the skeptical position which claims that we’re not justified in believing even the most ordinary things about the world around us?
Fall PHIL1750 S01 15796 TTh 1:00-2:20(10) (D. Christensen)

PHIL 1760. Philosophy of Language.
How is language used both to express and to communicate our beliefs and other thoughts? What is the relation between the meaning of a sentence and the meanings of the words that comprise it? We will discuss philosophical work on these and related questions including, potentially: the meanings of metaphors; the way meaning depends upon context; the nature of slurs and hate speech.
Fall PHIL1760 S01 24440 MWF 11:00-11:50(04) (R. Heck)

PHIL 1820. Philosophy and Psychoanalysis.
The course proposes a philosophical examination of a variety of psychoanalytical theories beginning with classical Freudian theory and including ego psychology, various relational theories (object relations, intersubjectivity, and attachment theories), and self psychology. The course might also consider some of the philosophical sources of psychoanalytical theory, its interaction with recent developmental research, and its applications in literary and cultural studies.
Spring PHIL1820 S01 24359 TTh 1:00-2:20(08) (B. Reginster)

PHIL 1830. Twentieth-Century Analytic Philosophy.
This course provides an introduction to major philosophers and movements within the analytic tradition. Our focus will be on the groundbreaking work done in the first few decades of the 20th century. We will read selected works of Gottlob Frege, G. E. Moore, Bertrand Russell, Ludwig Wittgenstein, and A.J. Ayer. We will discuss central issues in the philosophy of language, metaphysics, epistemology, and metaethics. One recurring theme will be the nature and correct methodology of philosophy itself.
Spring PHIL1830 S01 24345 MWF 1:00-1:50(06) (J. Schechter)

PHIL 1855. Modal Logic.
Modal logic concerns the logic of necessity and possibility. In this course, we will look at formal systems that have been developed to handle these and related notions. We will cover three topics: propositional modal logic, quantified modal logic, and the logic of counterfactual conditionals. We will discuss philosophical issues, but the main focus of the course will be on the technical material. No official prerequisite. It is strongly recommended that students have taken PHIL 0540 or have a working knowledge of elementary logic.
Spring PHIL1855 S01 24415 MWF 2:00-2:50(07) (J. Schechter)

PHIL 1880. Advanced Deductive Logic.
This course provides an introduction to the metatheory of first-order logic. We will prove the completeness of first-order logic. We then move on to the major "limitative" results, including the undecidability of first-order logic, the Gödel incompleteness theorems, and the undefinability in arithmetic of arithmetical truth. Prerequisite: PHIL 0540 or instructor's permission.
Fall PHIL1880 S01 15984 MWF 1:00-1:50(06) (R. Heck)
Spring PHIL1880 S01 24342 MWF 11:00-11:50(04) (R. Heck)

PHIL 1890B. Wittgenstein.
This course will focus on the Philosophical Investigations and its treatment of various questions in the philosophy of language and the philosophy of mind. Some attention will also be given to his Remarks on the Foundations of Mathematics. Prerequisite: Two courses in philosophy.
Spring PHIL1890B S01 24361 M 3:00-5:30(13) (C. Larmore)

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.

An elective for students writing a thesis. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

PHIL 2030A. Moral Psychology.
This seminar will examine in depth some problems associated with morality, rationality, and the human psyche. Possible topics: acting for reasons, moral responsibility, practical reasoning, moral character, love, modesty, being too good, moral luck, desire, weakness of will. Undergraduates require instructor permission to enroll.
Fall PHIL2030A S01 15812 W 3:00-5:30(17) (N. Arpaly)

PHIL 2080K. Architecture and Philosophy.
Is art produced for disinterested contemplation? Then how can architecture, which fundamentally serves one of the most fundamental human interests, that for shelter from an adverse environment, count as art? This question has both motivated philosophical speculation and caused tension in architectural practice for centuries. We will approach it through texts by philosophers such as James, Kant, Hegel, Schopenhauer, and Wittgenstein; architects such as Vitruvius, Alberti, Loos, Wright, Corbusier, and Venturi; and critics such as Ruskin, Watkins, Vidler, and Leatherbarrow. This course is a seminar requiring oral presentation and a term paper.
Spring PHIL2080K S01 24416 W 3:00-5:30(10) (P. Guyer)

PHIL 2110N. Descartes, Boyle and Locke: Body, Mind, Essence and Quality.
What is the nature of matter and of mind—or indeed or of gold or lead, or trees or dogs? More fundamentally, what are natures? How can we hope to discover them? Descartes thought he had a good method (a meditation to clarify our ideas). Locke had a different view: we are completely taken by the natural philosophy and medicine of the time offered, and so we will do a double; we are completely ignorant of essences, and classify things according to groups of salient qualities that they have. We will study the ways that philosophers retained, rejected, reworked, or reinvented the Aristotelian notion of essence, and how the natural philosophy and medicine of the time offered, and so we will do a double; we are completely.
PHIL 2160P. Ethical Themes in Fiction About Education.  
This seminar will focus on novels and short stories about education and 
will use this fiction as a vehicle for discussing various ethical issues 
in areas including teacher-student relationships, admissions to selective 
schools, curriculum choices, disciplinary procedures, and evaluations 
of students' and teachers' performance. In order to include students with 
varied backgrounds, this seminar has no prerequisites.

Spr PHIL2160P S01 24419 M 3:00-5:30(17) (F. Ackerman)

PHIL 2170J. Nietzsche's Genealogy of Morality.  
Bernard Regenstein graduate seminar. TBD.  
Fall PHIL2170J S01 15938 M 3:00-5:30(05) (B. Regenstein)

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.

Fall PHIL2200 S01 15381 TTh 6:40-8:00PM(15) (J. Dreier)
Spr PHIL2200 S01 24354 MWF 9:00-9:50(02) (N. Arpaly)

PHIL 2450. Exchange Scholar Program.  
Fall PHIL2450 S01 15165 Arranged 'To Be Arranged'
Fall PHIL2450 S02 15166 Arranged 'To Be Arranged'
Fall PHIL2450 S03 15167 Arranged 'To Be Arranged'
Spr PHIL2450 S01 24103 Arranged 'To Be Arranged'

PHIL 2700. Third Year Workshop.  
Students will receive training and practice in writing papers for publication 
in philosophy journals. Each student will complete a paper that has 
significantly greater scope and depth than a normal seminar paper. The 
paper will normally have some relevance to an envisioned dissertation, but 
there will be more emphasis on the quality of work than on relevance to 
future projects.

Spr PHIL2700 S01 24358 TTh 9:00-10:20(01) (A. Pautz)

PHIL 2800. Dissertation Workshop.  
No description available. Course for graduate students during their 4th 
year or above.

Fall PHIL2800 S01 15380 MWF 9:00-9:50(01) (J. Schechter)
Spr PHIL2800 S01 24340 MWF 9:00-9:50(02) (D. Christensen)

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.

Fall PHIL2970 S01 15168 Arranged 'To Be Arranged'
Spr PHIL2970 S01 24104 Arranged 'To Be Arranged'

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.

Fall PHIL2990 S01 15169 Arranged 'To Be Arranged'
Spr PHIL2990 S01 24105 Arranged 'To Be Arranged'

PHIL XLIST. Courses of Interest to Philosophy Concentrators.  

PHYS 0040. Basic Physics B.  
Survey of electricity, magnetism, optics, and modern physics for 
concentrators in sciences other than physics-including premedical 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. Recommended: MATH 0090 or MATH 0100.

Spr PHYS0040 S01 24837 MWF 11:00-11:50(04) 'To Be Arranged'
Spr PHYS0040 S02 24838 MWF 12:00-12:50(05) 'To Be Arranged'

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.

Fall PHYS0050 S01 16424 MW 8:30-9:50(01) 'To Be Arranged'

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.

Spr PHYS0060 S01 24839 MW 8:30-9:50(02) 'To Be Arranged'

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. S/NC

Fall PHYS0070 S01 16425 MWF 9:00-10:50(01) 'To Be Arranged'

PHYS 0100. Flat Earth to Quantum Uncertainty: On the Nature and 
Meaning of Scientific Explanation.  
Physics has had a dramatic impact on our conception of the universe, 
our ideas concerning the nature of knowledge, and our view of ourselves. 
Philosophy, sometimes inspired by developments in physics, considers 
the impact of such developments on our lives. In this seminar, students 
will explore how classical and modern physical theory have affected our 
view of the cosmos, of ourselves as human beings, as well as our view 
of the relation of mathematical or physical structures to 'truth' or 'reality.'

Through a study of physics as well as selected philosophical readings, 
we will consider how we can know anything, from seemingly simple facts 
to whether a machine is conscious. Enrollment limited to 19 first year 
students. Instructor permission required. FYS WRIT

Fall PHYS0100 S01 16449 TTh 2:30-3:50(03) 'To Be Arranged'

PHYS 0112. Extra-Solar Planets and the Search for Extraterrestrial 
Life.  
The course will cover the significant developments in the detection and 
characterization of extra-solar planetary systems in the past almost 30 
years. We will study the techniques for detecting planets outside of our 
solar system, the properties of the exoplanets discovered so far, and 
the prospects for future discoveries, with an emphasis on the search for 
"Earth-analogues" and the implications for astrobiology.

Spr PHYS0112 S01 24860 MWF 1:00-1:50(06) 'To Be Arranged'

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. Physical concepts to be covered: 
mechanical energy, thermodynamics, the Carnot cycle, electricity and 
magnetism, quantum mechanics, and nuclear physics. 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 19. FYS

Spr PHYS0114 S01 24869 TTh 2:30-3:50(11) 'To Be Arranged'
PHYS 0150. The Jazz of Modern Physics.
This course, aimed at both students in the humanities and sciences, will explore the myriad surprising ways that jazz music is connected to modern physics. No background in physics, mathematics or music is required, as all of these foundational concepts and tools will be introduced. The Jazz of Physics has three interconnected components:
(1) Using concepts and analogies from music and acoustics to explore the key conceptual ideas in modern physics such as quantum mechanics/ information, general relativity, particle physics, dark energy and big bang cosmology.
(2) Exploring the parallels between jazz and physics through the lens of 20th century physics and jazz history, as well as key innovations in both fields with an eye towards future innovations.
(3) Students will learn the tools of signification in physics and develop group projects with a final product.
The course will consist of lectures, related homework sets, weekly discussion meetings, and a final study where groups of students will select a topic of interest.
Fall PHY0700 S01 14642 MWF 11:00-11:50(04) 'To Be Arranged'

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. S/NC
Spr PHY0780 S01 24840 MWF 9:00-9:50(02) 'To Be Arranged'

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.
Spr PHY0740 S01 24841 TTh 10:30-11:50(09) 'To Be Arranged'

PHYS 0270. Introduction to Astronomy.
A complete survey of basic astronomy, more rigorous than is offered in PHYS 0220. Requires competence in algebra, geometry, trigonometry, and vectors and also some understanding of calculus and classical mechanics. Laboratory work required. This course is an equivalent required for students concentrating in astronomy. The course includes conferences and evening laboratory sessions.
Fall PHY0570 S01 16426 TTh 1:00-2:20(10) 'To Be Arranged'

PHYS 0470. 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.
Fall PHY0540 S01 16427 MW 10:00-10:50(14) 'To Be Arranged'

Dynamics of particles, rigid bodies, and elastic continua. Normal modes. Lagrangian and Hamiltonian formulations. Prerequisites: PHYS 0070, 0160 or 0050, 0060 and MATH 0180 or 0200; or approved equivalents.
Spr PHY0550 S01 24842 MW 10:00-10:50(03) 'To Be Arranged'

PHYS 0560. Experiments in Modern Physics.
Introduction to experimental physics. Students perform fundamental experiments in modern quantum physics, including atomic physics, nuclear and particle physics, and condensed matter physics. Visits to research labs at Brown acquaint students with fields of current research. Emphasizes laboratory techniques, statistics, and data analysis. Three lecture/discussion hours and three laboratory hours each week. Required of all physics concentrators. Prerequisites: PHYS 0070, 0160 or 0050, 0060; 0470. WRIT
Spr PHY0560 S01 24843 MW 11:00-11:50(04) 'To Be Arranged'

PHYS 0720. Methods of Mathematical Physics.
This course is designed for sophomores in physical sciences, especially those intending to take sophomore or higher level Physics courses. Topics include linear algebra (including linear vector spaces), Fourier analysis, ordinary and partial differential equations, complex analysis (including contour integration). Prerequisites: PHYS 0060 or 0160, MATH 0180, 0200 or 0350, or consent of the instructor.
Fall PHY0570 S01 16428 MWF 11:00-11:50(16) 'To Be Arranged'

An introduction to the principles of quantum mechanics and their use in the description of the electronic, thermal, and optical properties of materials. Particularly intended as an advanced science course in the engineering curriculum. Open to others by permission. Prerequisites: ENGN 0040, APMA 0340 or equivalents.
Fall PHY0570 S01 16429 TTh 9:00-10:20(02) 'To Be Arranged'

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.
Spr PHY1510 S01 24844 TTh 1:00-2:20(08) 'To Be Arranged'

PHYS 1280. 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 PHY1280 S01 16430 TTh 1:00-2:20(10) 'To Be Arranged'

PHYS 1410. 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 PHY1410 S01 16432 MWF 9:00-9:50(01) 'To Be Arranged'

PHYS 1420. Quantum Mechanics B.
See Quantum Mechanics A, (PHYS 1410) for course description.
Spr PHY1420 S01 24845 MWF 9:00-9:50(02) 'To Be Arranged'

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.
Spr PHY1510 S01 16433 TTh 2:30-3:50(03) 'To Be Arranged'

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 PHY1530 S01 16434 TTh 10:30-11:50(13) 'To Be Arranged'

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 PHY1560 S01 24846 TTh 9:00-10:20(01) 'To Be Arranged'

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; the ability to write a simple computer program in Fortran, Matlab, C or C++. WRIT
Spr PHY1600 S01 24847 TTh 2:30-3:50(11) 'To Be Arranged'
**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 16435 MWF 1:00-1:50(06) 'To Be Arranged'

**PHYS 1970F. Quantum Information.**
Quantum information is the modern study of how to encode and transmit information on the quantum scale—in many ways fundamentally different from classical information. This course will connect a standard treatment of Quantum mechanics with information theory. Some topics will overlap with phys 1410, but information will be presented from a different viewpoint and with new applications. Topics covered will include: measurement, quantum states, bits, density of states, entanglement, quantum information processing, computing, and some special topics. Students will be expected to complete an end of term project for successful completion of the course.

Spr PHYS1970F S01 24870 TTh 9:00-10:20(01) 'To Be Arranged'

**PHYS 1980. 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 research project 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 16436 W 3:00-5:30(17) 'To Be Arranged'
Spr PHYS2010 S01 24849 W 3:00-5:30(10) 'To Be Arranged'

**PHYS 2030. Classical Theoretical Physics I.**
No description available.

Fall PHYS2030 S01 16437 TTh 9:00-10:20(02) 'To Be Arranged'

**PHYS 2040. Classical Theoretical Physics II.**
No description available.

Spr PHYS2040 S01 24851 TTh 10:30-11:50(09) 'To Be Arranged'

**PHYS 2050. Quantum Mechanics.**
No description available.

Fall PHYS2050 S01 16438 MWF 10:00-10:50(14) 'To Be Arranged'

**PHYS 2060. Quantum Mechanics.**
No description available.

Spr PHYS2060 S01 24852 MWF 10:00-10:50(03) 'To Be Arranged'

**PHYS 2070. Advanced Quantum Mechanics.**
No description available.

Fall PHYS2070 S01 16439 TTh 1:00-2:20(10) 'To Be Arranged'

**PHYS 2140. Statistical Mechanics.**
No description available.

Spr PHYS2140 S01 24853 TTh 1:00-2:20(08) 'To Be Arranged'

**PHYS 2170. Introduction to Nuclear and High Energy Physics.**
No description available.

Spr PHYS2170 S01 24854 MWF 1:00-1:50(06) 'To Be Arranged'

**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 24855 MWF 2:00-2:50(07) 'To Be Arranged'

**PHYS 2300. Quantum Theory of Fields I.**
No description available.

Spr PHYS2300 S01 24856 TTh 2:30-3:50(11) 'To Be Arranged'

**PHYS 2320. Quantum Theory of Fields II.**
No description available. Instructor permission required.

Fall PHYS2320 S01 16440 TTh 10:30-11:50(13) 'To Be Arranged'

**PHYS 2340. Group Theory.**
Offered every other year.

Spr PHYS2340 S01 24857 MWF 2:00-2:50(07) 'To Be Arranged'

**PHYS 2410. Solid State Physics I.**
No description available.

Fall PHYS2410 S01 16441 MWF 12:00-12:50(12) 'To Be Arranged'

**PHYS 2420. Solid State Physics II.**
No description available.

Spr PHYS2420 S01 24859 TTh 10:30-11:50(09) 'To Be Arranged'

**PHYS 2450. Exchange Scholar Program.**
Fall PHYS2450 S01 15172 Arranged 'To Be Arranged'
Spr PHYS2450 S01 24107 Arranged 'To Be Arranged'

**PHYS 2470. Advanced Statistical Mechanics.**
No description available.

Fall PHYS2470 S01 16442 TTh 10:30-11:50(13) 'To Be Arranged'

**PHYS 2600. Computational Physics.**
This course provides students with an introduction to scientific computation at the graduate level, 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 2030, 2050, 2140; the ability to write a simple computer program in Fortran, Matlab, C or C++.

Spr PHYS2600 S01 24858 TTh 2:30-3:50(11) 'To Be Arranged'

**PHYS 2630. Biological Physics.**
The course is the graduate version of Phys 1610, Biological Physics. The topics to be covered include structure of cells and biological molecules; diffusion, dissipation and random motion; flow and friction in fluids; entropy, temperature and energy; chemical reactions and self-assembly; solution electrostatics; action potential and nerve impulses. The graduate level course has additional pre-requisites of Phys 0470 and 1530, or equivalents. It requires homework assignments at the graduate level. The final grades will be assigned separately from those who take the course as Phys 1610, although the two groups may be taught in the same classroom.

Fall PHYS2630 S01 16443 MWF 1:00-1:50(06) 'To Be Arranged'

**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.

Fall PHYS2970 S01 15173 Arranged 'To Be Arranged'
Spr PHYS2970 S01 24108 Arranged 'To Be Arranged'
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.

Fall PHYS2990 S01 15174 Arranged 'To Be Arranged'
Spr PHYS2990 S01 24109 Arranged 'To Be Arranged'

Political Science

POLS 0100. 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 POLS0001 S01 24259 MW 8:30-9:50(02) (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 24257 MWF 10:00-10:50(03) (M. Rogers)

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 POLS2220 S01 24253 TTh 1:00-2:20(08) (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 globalization, state failure, humanitarian intervention, NGOs, terrorist networks, environmental issues, and possible future change in international politics.

Fall POLS400 S01 15549 TTh 2:30-3:50(03) (J. Branch)

POLS 0820G. Race and Political Representation.
While representation is a central tenet of democracy, much disagreement exists over what political representation means and the best way to ensure equitable representation for all citizens. We will study representation and its various forms. We will then use these concepts to examine research on how well American democratic institutions capture the interest of racial and ethnic minorities. Enrollment limited to 19 first year students. FYS

Fall POLS0820G S01 15601 W 3:00-5:30(17) (D. Skarbek)

POLS 0820U. Drug War Politics.
This seminar examines the politics, practice, and consequences of government efforts to regulate mind-altering substances since the early 20th century. Although much of the focus is on the contemporary United States and Latin America, the coverage is broadly historical, comparative, and global. The main drugs focused on are cocaine, opium, and cannabis, but will include alcohol, tobacco, and synthetics. The course also evaluates policy alternatives and the obstacles to policy reform. The course draws on readings from fields such as political science, anthropology, criminology, and history. The seminar is reading intensive, and is designed to cultivate critical writing and presentation skills. Enrollment limited to 19 first year students. Instructor permission required. FYS WRIT

Fall POLS0820U S01 15546 M 3:00-5:30(05) (P. Andreas)

POLS 0820W. Bleeding Heart Libertarianism.
What is libertarianism? In what sense can libertarians claim to combine the best of the "right" with the best of the "left?" Why do libertarians emphasize private property? Why are they skeptical of political agency? Are libertarians anti-democratic? Can they care about social justice? How do libertarians approach problems such as racism, sexism, militarism, state surveillance, global inequality, and environmental sustainability? This course will explore such questions, as illuminated by a variety of texts in the libertarian tradition, classical and contemporary. FYS

Spr POLS0820W S01 24277 W 3:00-5:30(10) (J. Tomasi)

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 24245 MWF 2:00-2:50(07) (C. Brettschneider)

This course is about the "underside" of globalization. It introduces key sectors of the illicit global economy, including the clandestine flow of drugs, arms, people, body parts, arts and antiques, endangered species, and toxic waste. The course compares these illicit sectors across time and place, and evaluates the practice and politics of state regulatory efforts. Particular attention is given to the role of the U.S. in the illicit global economy.

Fall POLS1020 S01 15547 MWF 10:00-10:50(14) (P. Andreas)

POLS 1040. Ancient Political Thought.
The Greeks stand at the beginning of the Western tradition of political philosophy, yet their thought is somehow foreign. What was the special perspective from which they viewed political life? In what ways does their perspective vitalize, contest, deepen, or affirm our own thinking on justice, politics, and the good life? This course will examine these and other questions with a special emphasis on the works of Plato and Aristotle.

Fall POLS1040 S01 15557 MWF 8:30-9:50(01) (S. Krause)

POLS 1090. Polarized Politics.
Focus will be on growing partisan polarization in American politics. Existence of polarization in institutions like House of Representatives, Senate, the presidency, federal courts, media, and religion will be examined. Emphasis will include the roles of political elites, non-elites, lobbyists, money in politics, red states/blue states, House and Senate rules, particular pressures created by budget, domestic, foreign policy, defense and homeland security issues. Requires extensive reading, detailed paper, take-home final exam and active class participation. Expectation to remain informed about current events as they apply to partisan polarization and to weigh the impacts of polarized politics on a democratic nation.

Spr POLS1090 S01 24280 TTh 1:00-2:20(08) (R. Avenberg)

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 15610 MW 12:00-12:50(12) (R. Avenberg)

POLS 1140. Public Opinion and American Democracy.
Public opinion is an essential component of democracy. Considering the lack of familiarity about current events, how does public opinion affect public policy? Perhaps more importantly, should it? To assess these questions, we will explore how to measure public opinion and what polls tell us. We will then assess the roots of public opinion and analyze the public policy and representational impact of people's preferences.

Spr POLS1140 S01 24272 TTh 9:30-10:20(01) (K. Tate)
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. Freshmen welcome.
Fall POLS1150 S01 15608 TTh 9:00-10:20(02) (J. Tomasi)

POLS 1220. Politics in Russia and Eastern Europe.
How do Putin and other leaders in Eastern Europe maintain political power? Why did some states democratize after communism's collapse, and why are successful democratizers (Hungary, Poland) now moving toward semi-authoritarian populism? Why has Ukraine become a battlefield between Russia and the West? We will study how international economic integration, the European Union, and the migrant crisis have affected the region's domestic politics. Focus will be on the Russian Federation, Ukraine, and Poland. Background in social sciences recommended.
Spr POLS1220 S01 24249 MWF 11:00-11:50(04) (L. Cook)

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.
Spr POLS1240 S01 24267 TTh 9:00-10:20(01) (R. Snyder)

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.
Spr POLS1265 S01 24264 MWF 12:00-12:50(05) (P. Singh)

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 24274 MWF 1:00-1:50(06) (A. Varshney)

POLS 1285. Quality of Democracy in Latin America.
Focus on democratic quality in modern Latin America, its failures as well as its successes. Topics include police violence, the rule of law, indigenous movements, gender and gay rights, anti-poverty policy, and direct democracy. Will draw on material from across the Spanish and Portuguese speaking democracies in the region. We will engage with different theories of what makes democracies representative and accountable to their citizens. Not open to first years.
Fall POLS1285 S01 15609 TTh 10:30-11:50(13) (R. Weitz-Shapiro)

POLS 1290. The Rise of China.
This course examines the causes and consequences of China's societal transformation and emergence as a global power. Employing perspectives from comparative politics, international relations, and economics, the course explores the connections between China's domestic transformation and its integration with the global system. Lectures and readings cover the historical antecedents of China's rise, the contemporary relationship between state and citizen, the nature of China's global competitiveness, and likely future avenues for socio-political change.
Spr POLS1290 S01 24270 TTh 10:30-11:50(09) (E. Steinfeld)

POLS 1320. Urban Politics and Urban Public Policy.
A central theme of the course is that urban politics in the United arises from the interplay of governmental power and private resources. The course describes the emergence of urban America; the modern city and the theories that have evolved to explain urban politics; and the nature of the urban condition with particular emphasis on the challenges faced by residents and government in the post-industrial city.
Spr POLS1320 S01 24255 TTh 10:30-11:50(09) (M. Orr)

POLS 1415. Classics of Political Economy.
Tracesthe most important classical statement 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.
Fall POLS1415 S01 15551 MWF 2:00-2:50(07) (A. Gourévitch)

POLS 1440. Security, Governance and Development in Africa.
Some of the fastest-growing economies in the world now lie in sub-Saharan Africa. Yet Africa is also home to some of the world's most corrupt and violent states. This course will provide a variety of lenses through which to view these and other paradoxes on the continent, with a focus on security, governance and economic development. Topics will include the long-term consequences of colonialism and the slave trade; the politics of independence; the causes and effects of crime, violence and civil war; democracy and democratization; the promise and pitfalls of foreign aid; and the challenges of building strong, stable states.
Fall POLS1440 S01 15548 MWF 9:00-9:50(01) (R. Blair)

Focuses on the political economy of development and underdevelopment. Topics include comparisons of state and market building among "early" and "late" developers, theories of development, prescriptions for development and their shortcomings, and the challenges for developing countries in the context of a globalizing economy.
Fall POLS1450 S01 15602 MWF 1:00-1:50(06) (D. Skarbek)

POLS 1500. The International Law and Politics of Human Rights.
Introduces students to the law and politics of international human rights; examines the construction of an international human rights regime and its influence on international politics. Will survey the actors and organizations involved in the promotion of human rights around the globe, as well as the obstacles. Will review competing conceptions of human rights, whether human rights are universal, problems of enforcement, and the role of human rights in foreign policy. Major topics include civil and political rights; economic, social and cultural rights; genocide, torture, women's rights, humanitarian intervention, and the international criminal court. POLS 0400 strongly encouraged as a prerequisite.
Fall POLS1500 S01 15603 MWF 11:00-11:50(16) (N. Tannenwald)
POLS 1530. Gender, Slavery, and Freedom.
Will examine how gender shaped slavery in the Americas. How did the experiences of enslaved men and women differ? Did the experiences of enslaved women result in specific practices that formed the basis for resistance to slavery and dehumanization? How did gendered experiences of slavery in turn affect the notions of freedom that were developed in post-emancipation societies? We will also consider how practices or ideas developed during slavery have contributed to the “afterlife” of slavery after official emancipation. We will analyze slavery as a concrete set of practices that were experienced and negotiated differently by enslaved men and women.
Spr POLS1530 S01 24251 TTh 2:30-3:50(11) (J. Hooker)

POLS 1550. War and Politics.
This course provides an examination of the intersection between political ends and military means. This includes an overview of theories of military strategy and combat tactics including challenges related to terrorism, insurgency and counter-insurgency. The bulk of the class will cover, in depth, historical details of specific conflicts from the Peloponnesian War through the recent wars in Iraq and Afghanistan. Detailed discussion of the evolution of specific weapon systems and their impact on military tactics will be included. Student will be required to watch several films as part of the course requirements.
Spr POLS1550 S01 24271 TTh 2:30-3:50(11) (N. Tannenwald)

POLS 1560. American Foreign Policy.
This course provides an overview of American Foreign Policy since World War I. The emphasis will be on defense and security policy, and not on foreign economic policy. This course covers significant historical events and personalities over the course of the twentieth century. When events dictate, part of any given daily class may be devoted to current events in American Foreign Policy, with emphasis on their historical source and context. Prerequisite: POLS 0400.
Fall POLS1560 S01 15558 TTh 1:00-2:20(10) (R. McDermott)

POLS 1820A. American Political Development.
No description available. Enrollment limited to juniors and seniors.
Spr POLS1820A S01 24254 Th 4:00-6:30(17) (J. Morone)

This course interrogates the emergence of the 19th century philosophical movement known as pragmatism, focusing on William James and John Dewey, and investigates its intimations and resonances in African American intellectuals such as Anna Julia Cooper, W. E. B. Du Bois, Alain Locke, and James Baldwin. We explore the crisis of religious certainty, and pragmatism’s attempt to provide an alternative framework for thinking about democratic governance. We also investigate the persistence of racism that politicized a group of thinkers who, in various ways, overlapped with pragmatists as they offered a normative vision of democracy to address domination.
Fall POLS1820E S01 17067 M 3:00-5:30(05) (M. Rogers)

This course explores the theory and praxis of black protest in the Americas, which were formulated in response to the different racial orders that developed in the U.S. and Latin America. We will analyze how black populations mobilized to escape slavery, resist racial terror and white supremacy, gain rights from the state, protect black life, and overcome various forms of dehumanization. Examples will include anti-lynching movements in the U.S., the civil rights and other black movement of the 1960s, the Black Lives Matter movement, and mobilizations against “black genocide,” police violence, and displacement in Brazil and other Latin American countries.
Fall POLS1820F S01 17068 Th 4:00-6:30(04) (J. Hooker)

POLS 1820H. Contraband Capitalism: States and Illegal Global Markets.
This course explores the clandestine side of the global economy (including flows of drugs, people, weapons, and money) and state policing efforts. We will examine the organization of these activities, how they intersect with the state and legal economy, their relationship to armed conflicts, and how they shape (and are shaped by) domestic and international politics. Enrollment limited to 20 juniors and seniors concentrating in Development Studies, Political Science, or International Relations. Course is not open to students who have taken POLS 1020. WRIT
Spr POLS1820H S01 24241 W 3:00-5:30(10) (P. Andreas)

POLS 1820R. Early Modern Orders.
This course will approach problems of political, social and economic order from the perspective of early modern British political thought. Authors include Hobbes, Locke, Hume and Smith. We will explore the conceptions of political authority, power and subjecthood that emerge from their theoretical engagements with orders of all kinds and consider whether these persist in our contemporary understandings of politics.
Spr POLS1820R S01 24266 W 3:00-5:30(10) (D. Skarbek)

Can capitalists care about social justice? This course considers the proposition that capitalists can, and should. Readings include a variety of classical and contemporary sources about the idea of economic freedom and its relationship to social justice. Enrollment limited to 20 seniors.
Fall POLS1821C S01 15555 W 3:00-5:30(17) (A. Gourevitch)

POLS 1821L. International Relations of Russia, Europe and Asia.
What role does Russia seek to play in the contemporary international system? Can NATO hold together as an effective military alliance willing and able to defend its member states? How is the rise of China affecting Russia, Europe and the international system? The seminar will discuss these and related questions, considering Russia’s evolving relations with the centers of global power West and East, its efforts to retain control in the former Soviet space and to extend its reach into the Arctic; its agendas in trying to influence US and European domestic politics through ‘soft’ power, and related topics. WRIT
Spr POLS1821L S01 24248 M 3:00-5:30(13) (L. Cook)

POLS 1821N. Political Journalism.
Exploration of the development of political reporting and analysis of contemporary public affairs reporting. Will address key elements of the best political journalism, as well as the manner in which political journalism affects public opinion, political attitudes, and campaigns and elections. Enrollment limited to 20 junior and senior Political Science concentrators.
Spr POLS1821N S01 24284 T 4:00-6:30(16) (J. Robbins)

POLS 1821Q. 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. Open to senior Political Science and International Relations concentrators.
Spr POLS1821Q S01 24269 Th 4:00-6:30(17) (R. Snyder)

POLS 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 24273 Th 4:00-6:30(17) (K. Tate)
POLS 1822C. Congress.
Takes a comprehensive view of the U.S. Congress, its structure, procedures, elections, parties, constituencies and its interactions with the president and the courts. The Constitution establishes the Congress as the first branch and guardian of the nation’s purse strings. This course will examine the strengths and vulnerabilities of the modern Congress with its highly polarized political parties. Requires extensive reading, a detailed paper and active class participation. Students are expected to pay careful attention to current events in the U.S. Congress. Enrollment limited to 20 juniors and seniors in Political Science.
Spr POLS1822C S01 24281 T 4:00-6:30(16) (R. Arenberg)

POLS 1822K. Laws of Violence.
States kill. Law enforcement officers may kill to protect innocent victims. The military kills to protect the nation. And a handful of states still impose the death penalty. These are all lawful killings. 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 though unstable relation between law and violence. Enrollment limited to 20 juniors and seniors. WRIT
Spr POLS1822K S01 24283 F 3:00-5:30(15) ‘To Be Arranged’

POLS 1822N. Freedom.
This course examines the meaning and conditions of human agency and freedom with a special focus on the experiences of those who are marginalized. What do these experiences tell us about the social practices, political institutions, and self-understandings that are necessary to sustain individual freedom? How do ostensibly free societies such as the U.S. instantiate freedom successfully and where do they fail? How can we enhance the experience of individual freedom today, especially for members of marginalized or oppressed groups? Enrollment limited to 20 juniors and seniors. WRIT
Fall POLS1822N S01 15592 W 3:00-5:30(17) (S. Krause)

POLS 1822V. Pluralism and Democratic Imagination.
In this course, we will investigate the contours of historical debates about pluralism and democracy in the public imagination. Our goal will be to make the terms “pluralism” and “democracy,” which simultaneously serve as hollow tropes in contemporary political discourse and as the basis for a secular religious faith for many on the left and the right, more difficult. Rather than cleansing these terms of their complications, we will strive to see them from all sides, interrogating their maddening paradoxes and ugly undertones while never losing sight of their awesome possibilities. Enrollment limited to 20 juniors and seniors.
Fall POLS1822V S01 15679 T 4:00-6:30(09) ‘To Be Arranged’

POLS 1822W. Congressional Investigations.
This seminar will explore the role that Congressional investigations have historically played at the intersection of politics, public policy, tension between the executive and legislative branches, law and media, focusing on certain of the seminal Congressional investigations that both reflected and re-shaped the politics of the day. These will include the Pecora investigation into the 1929 stock market crash, the Truman Committee investigation into defense contracting during World War II, the House Un-American Activities Committee, the McCarthy hearings, Watergate, the Iran-Contra hearings and the Senate Permanent Subcommittee on Investigations hearings into the financial services industry. WRIT
Fall POLS1822W S01 15680 T 4:00-6:30(09) (J. Robbins)

POLS 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 24244 W 3:00-5:30(10) (J. Branch)

POLS 1823G. Women and War
This course provides an examination of the links between the security of women and the security of nations. It explores the productive and reproductive roles of women in society from an evolutionary feminist perspective which identifies the female body as a site of important societal contestation. It investigates the reciprocal relationship between individual and societal choices and structures in areas as diverse as family law, development, education and the sex trade. Students will be required to watch several films as part of the course requirements. Enrollment limited to 20 juniors and seniors. WRIT
Fall POLS1823G S01 15559 Th 4:00-6:30(04) (R. McDermott)

POLS 1823W. American Political Thought.
This course surveys the various ideas and practices associated with the term “democracy” in the course of American political history. Its chief purpose is to give you an idea of how contested this term was in the course of our political tradition, as a means of situating our present political disputes in historical context. We examine rival conceptions and applications of democracy in the Revolutionary era, at the Founding, in Jacksonian and antebellum America, during the Civil War, in the Gilded Age and the Progressive era, through the New Deal, the 1950s, the 1960s, and the 1980s. WRIT
Spr POLS1823W S01 24258 M 3:00-5:30(13) (M. Rogers)

POLS 1824B. Post Conflict Politics.
What, if anything, can the international community do to keep peace in countries wracked by civil war? Why does international intervention succeed in some countries but not others? How can war-torn societies overcome the myriad challenges inherent in post- conflict politics, including disarmament, demobilization and reintegration of ex- combatants; repatriation of refugees; transitional justice; and reconciliation of wartime adversaries. This senior seminar addresses these questions through a combination of case studies, in-class discussions and debates, and readings from a wide variety of academic, policy and philosophical sources. While there are no prerequisites for the course, some familiarity with quantitative data analysis will be useful. WRIT
Spr POLS1824B S01 24242 F 3:00-5:30(15) (R. Blair)

POLS 1824G. Farms, Fisheries, and Politics.
This seminar compares and contrasts the politics of agriculture and the politics of fisheries in the United States. The course examines the rise of the farm bloc and the agricultural welfare state, along with the evolving politics of the farm bill. It then turns to the governance of fisheries and the apparent disconnect between fisheries management and “fish as food.” The final part of the course is devoted to a synthesis of perspectives on food and fisheries, including case studies developed through student research. Limited to Political Science concentrators. WRIT
Spr POLS1824G S01 24247 Th 4:00-6:30(17) (R. Cheit)

POLS 1824J. Culture, Identity and Development.
There is a consensus, in scholarly and policy circles, on the importance of cultural processes and identity for a range of development outcomes across the world. There is far less understanding of how culture and identity influence development. The aim of this course is to develop this understanding. We will draw on readings across the social sciences as well as analysis of development interventions across the globe to gain a comprehensive understanding of the ways in which culture and identity, conceptualized as actively constructed and changing, influence a range of outcomes including health, sanitation, education, inequality and economic development. WRIT
Fall POLS1824J S01 15595 F 3:00-5:30(11) (P. Singh)
POLS 1824K. The American Welfare State in Comparative Perspective.
Will examine the development of social policy in the United States and the political conflicts that drive contemporary debates. We begin by identifying the distinctive features of American public policy, limited spending on the poor and the use of tax expenditures to achieve social goals. How the politics of race, immigration, gender, and federalism have shaped American approaches to social welfare. We will explore the role of public opinion, interest groups, and partisan polarization in shaping the agenda and outcome of reform efforts. Topics include diverse forms of public assistance, employment policy, health care, and social security. WRIT Fall POLS1824K S01 15608 M 3:00-5:30(05) (M. Weir)

POLS 1824M. The Politics of Race and the Criminal Justice System.
This course examines the politics of race and the criminal justice system in the U.S. It proceeds in three parts. First, it examines the political origins and consequences of racial disparities in citizens’ interactions with the police, courts and prisons. Next, it considers how the public, the media, and politicians relate and respond to these issues. Finally, the course concludes by examining the prospects for reform and the consequences of inaction. Spr POLS1824M S01 25599 Th 4:00-6:30(17) (P. Testa)

POLS 1824R. Democracy and Education.
This course is to be an in-depth investigation of the relationship between democracy and public education. We will explore different normative theories of democracy in education. We will highlight the centrality of race to education politics and policy. We will also analyze different forms of governance structure and key policy areas where questions of democracy become vital. The material covered in this course includes: political theory, empirical studies of political science, and applied studies of policy. Fall POLS1824RS01 17106 T 4:00-6:30(09) (J. Collins)

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 20 senior Political Science concentrators. Instructor permission required. Fall POLS1910 S01 16324 F 3:00-5:30(11) (W. Schiller)

POLS 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. WRIT Spr POLS1920 S01 24669 F 3:00-5:30(15) (W. Schiller)

POLS 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.

POLS 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.

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. FIRST YEAR POLITICAL SCIENCE GRADUATE STUDENTS ONLY. Enrollment limited to 14. Spr POLS2000 S01 24278 T 9:30-12:00 (R. Weitz-Shapiro)

No description available. Fall POLS2020 S01 15560 T 12:30-3:00 (J. Morone)

This course provides a graduate-level survey of the politics that shape social and redistributive policies in the United States. We will consider what is distinctive about American social policy compared with social protection in other advanced economies. Will begin with different approaches to understanding variation in welfare states. Will examine distinctive features of American policy including reliance on tax benefits, federalism, racial politics, politics of gender, strategies of privatization, and housing in economic security. We conclude by considering factors that will shape the future of social policy including the politics of retrenchment, social investment, and racial and ethnic diversity. Fall POLS2025 S01 17069 W 2:30-5:00 (M. Weir)

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. Fall POLS2050 S01 15553 M 3:00-5:30(05) (M. Blyth)

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. Spr POLS2051 S01 24243 M 3:00-5:30(13) (M. Blyth)

POLS 2090G. Readings in American Institutions.
This course is designed as a readings and research course for graduate students and advance undergraduate students. Students will be required to read and analyze the latest work political science in the subfields of American politics, including but not limited to: public opinion, voting behavior, presidency, racial politics and representation, legislative institutions, political economy, and bicameralism. Open to graduate students only. Fall POLS2090G S01 15604 T 10:00-12:30 (K. Tate)

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 24279 W 9:30-12:00 (R. Weitz-Shapiro)

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. Spr POLS2120 S01 24250 Th 10:00-12:30 (A. Gourevice)

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 24246 W 3:00-5:30(10) (C. Bretschneider)

POLS 2165. Territorial Conflict.
This graduate seminar examines the relationship between territory and conflict. Territorial claims have been central to numerous violent and intractable disputes, both between states and within them. Why, how, and when does territory become the subject of violent conflict? Topics covered in this seminar include the origins of territoriality, historical and contemporary territorial disputes, and theoretical explanations for these conflicts. Graduate students only. Fall POLS2165 S01 15554 Th 10:00-12:30 (J. Branch)
Federated systems of government present opportunities and challenges for democratic accountability, managing collective action problems, economic stability, and distribution of goods and services. Course will take up the theory and practice of governing federated systems using a comparative approach that examines federated systems in several countries including the United States, Canada, Germany, Brazil, and India. Questions this course will examine include: What helps explain the emergence, persistence, and erosion of federalism? What are the implications of federalism for democratic accountability? What are the implications of federalism for fiscal stability? What are the implications of federalism for social, political, and economic inequality?
Fall POLS2210 S01 16483 M 12:30-3:00 (S. Moffit)

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. Enrollment limited to 14. Graduate Students only; all others by permission only.
Spr POLS2220 S01 24256 Th 10:00-12:30 (M. Orr)

POLS 2230. Political Loss.
This course will explore the concept of political loss as it has been sketched by political theorists. Questions of grief and grievance have been at the center of contemporary political debates in the U.S. and elsewhere, even as political theorists have begun to pay increasing attention to the relation between affect and politics more generally, and to the role of mourning and loss in political life specifically. While the course explores the concept of loss generally, it is particularly concerned with the central role narratives of loss have played in debates about racial justice.
Fall POLS2230 S01 16484 T 10:00-12:30 (J. Hooker)

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 quite a lot of recent scholarship. Enrollment limited to 14 graduate students.
Fall POLS2330 S01 15607 Th 1:30-4:00 (A. Varsney)

POLS 2450. Exchange Scholar Program.
This course introduces students to statistical theory and quantitative methods commonly used in political science and public policy. The course focuses on statistical inference using multiple techniques of regression analysis and gives students opportunities to become proficient users of the statistical software package Stata as they develop statistical models and analyze their data. Enrollment limited to 14. Open to graduate students in Political Science only.
Fall POLS2450 S01 15178 Arranged "To Be Arranged"
Spr POLS2450 S01 24112 Arranged "To Be Arranged"

POLS 2580. Introduction to Quantitative Research Methods.
This course introduces students to statistical theory and quantitative methods commonly used in political science and public policy. The course focuses on statistical inference using multiple techniques of regression analysis and gives students opportunities to become proficient users of the statistical software package Stata as they develop statistical models and analyze their data. Enrollment limited to 14. Open to graduate students in Political Science only.
Fall POLS2580 S01 15605 W 9:30-12:00 (P. Testa)

POLS 2590. Quantitative Research Methods.
An intermediate statistics course for graduate students. Topics include multiple regression, statistical inference, categorical dependent variable models, instrumental variable models, and an introduction to time series. Course readings and applications examine models used in different fields of political science and public policy including American institutions, comparative politics, and international relations. Open to graduate students concentrating in Political Science or Public Policy.
Spr POLS2590 S01 24703 M 12:00-2:30 (P. Testa)

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.
Fall POLS2975 S01 15605 S 11:30-2:30 (P. Testa)

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 2981. 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.
Fall POLS2990 S01 15179 Arranged (R. Cheit)
Spr POLS2990 S01 24113 Arranged "To Be Arranged"

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.
Fall POBS0100 S01 16325 MWF 10:00-2:50 (P. Sobral)
Fall POBS0100 S01 16326 TTh 1:00-2:30 (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 16326 TTh 10:30-11:50 (P. Sobral)
Fall POBS0110 S01 16326 MWF 12:00-1:50 (P. Sobral)
Spr POBS0110 S01 24733 TTh 9:00-10:20 (P. Sobral)
Spr POBS0110 S01 24733 MWF 12:00-1:50 (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 24734 MWF 2:00-2:50 (P. Sobral)
Spr POBS0200 S01 24734 TTh 1:00-2:20 (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 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. WRIT

Fall POBS0400 S01 16327 MW 10:00-10:50(13) (N. Parker)
Fall POBS0400 S01 16327 TTh 10:30-11:50(13) (N. Parker)
Spr POBS0400 S01 24735 MW 10:00-10:50(09) (N. Parker)
Spr POBS0400 S01 24735 TTh 10:30-11:50(09) (N. Parker)

POBS 0610. Mapping Portuguese-Speaking Cultures: Brazil
Selected literary and cultural texts that serve as vehicles for a deeper understanding of Brazilian society. 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 POBS0610 S01 16328 TTh 1:00-2:20(10) (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 English. DPLL WRIT
Spr POBS0620 S01 24740 TTh 2:30-3:50(11) (L. Simas-Almeida)

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? Piñon, Lispector, Scliar, Rushdie, Salih, Cristina Garcia, V. S. Naipaul and others. Conducted in English. Enrollment limited to 19 first year students. FYS WRIT
Fall POBS0810 S01 16329 TTh 9:00-10:20(02) (P. Sobral)

POBS 0910. On the Dawn of Modernity
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: 19. Reserved for First Year students. FYS WRIT
Fall POBS0910 S01 16333 M 3:00-5:30(05) (O. Almeida)

POBS 0990. Mapping Cross-Cultural Identities
How do we construct our own identity as life becomes a multitude of narrative threads intersecting and overlapping like roadways on a map? How do we reconfigure identities vis-à-vis those who surround us? We will investigate the ever-changing map of cultural identities and its repercussions on human existence via contemporary literature and a series projects that incorporate the arts (visual, digital, literary) and oral history. Some of the writers include Julia Alvarez, Kiran Desai, Junot Diaz, Milton Hatoum, Chang-Rae Lee, Clarice Lispector, Dinaw Mengestu, Nelida Piñon, Salman Rushdie, Taiye Selasi and others. No experience in the arts necessary. SOPH DPLL WRIT
Spr POBS0990 S01 24738 W 3:00-5:30(10) (P. Sobral)

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 16330 Th 4:00-6:30(04) (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. WRIT
Spr POBS1080 S01 24736 F 9:00-12:00 (P. Sobral)

POBS 1210. Afro-Brazilian and the Brazilian Polity (AFRI 1210)
Interested students must register for AFRI 1210.
Fall POBS1210 S01 17170 'To Be Arranged'

POBS 1500L. Fiction and History (COLT 1810G)
Interested students must register for COLT 1810G.
Fall POBS1500L S01 16888 'To Be Arranged'

POBS 1600A. The Afro-Luso-Brazilian Triangle (AFRI 1020C)
Interested students must register for AFRI 1020C.
Spr POBS1600A-S01 25715 'To Be Arranged'

POBS 1670. History of Brazil (HIST 1310)
Interested students must register for HIST 1310.
Fall POBS1670 S01 16822 'To Be Arranged'

POBS 1750. Language, Culture, and Society
Investigates the meanings of language, culture, and society and the interrelationship among them. Examines the functional and dysfunctional uses they can play in public education, particularly from the public school administrators' and teachers' viewpoints. Explores concerns directly related to the nature, quality, and future of English-as-a-Second-Language programs. Reflective activities, lectures, simulations, case studies, role plays, and small group discussions. Conducted in English. Enrollment limited to 25.
Spr POBS1750 S01 24744 T 4:30-7:00 (M. Pacheco)

POBS 1800F. The Lusophone World and the Struggle for Modernity
A study of classical writings from the Portuguese-speaking world dealing with the issue of modernity, focusing particularly on the Counter-Reformation and Baroque paradigms versus the Enlightenment. Portuguese, Brazilian and African writers such as Antero de Quental, Sérgio Buarque de Holanda, Vianna Moog, Amílcar Cabral and others will be read critically and in a comparative approach. Conducted in Portuguese. Enrollment limited to 40.
Spr POBS1800F S01 24743 T 6:40-9:10PM (O. Almeida)

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.

POBS 1990. Research and Preparation of Honors Projects
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 2020B. Cross-Cultural Growth and Development
Explores physical, cognitive, social and emotional human development from a cross-cultural perspective. Part one analyzes child-rearing practices in agrarian and industrialized societies. Part two is based on case studies involving the ethnolinguistic groups in the Providence area, which are studied and discussed with implications for teaching and learning. Conducted in English.
Fall POBS2020BE S01 16335 T 4:30-7:00 (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.
Spr POBS2020D S01 24746 Th 4:30-7:00 (S. Smith)

POBS 2120B. Practicum in English as a Second Language. The practicum in ESL is an integrating and culminating experience in the Master's Program in ESL and Cross Cultural Studies. The course provides a review of the theories and concepts related to English as a Second Language. Throughout the course students apply what they have learned about teaching English language learners and reflect on their assessment, planning and implementation of second language teaching through group discussions and seminars. To participate in this course students must have access to ELs in a classroom setting.
Spr POBS2120B S01 24745 M 4:30-7:00 (S. Smith)

POBS 2500B. Portuguese Overseas Encounters. A critical analysis of some classic Portuguese travel writings from the 15th to the 20th century. The readings include Zurara, Camões, Fernão Mendes Pinto, História Trágico-Martírma, Ramalho Ortigão, Raul Brandão, as well as the contemporary Pedro Rosa Mendes. Conducted in Portuguese.
Fall POBS2500B S01 16334 T 6:40-9:10PM (O. Almeida)

POBS 2500K. Senses and Sensibilities in the Nineteenth Century Portuguese Novel. The works to be read are representative of the main literary trends in 19th century Portuguese literature. They will be analyzed with a focus on literary aesthetics, but also on meanings (or senses), both culturally and personally, by exploring the textual construction of emotions, i.e., the engagement of sensibilities in the written word. Authors to be studied include Almeida Garrett, Camilo Castelo Branco and Eça de Queirós. Conducted in Portuguese.
Spr POBS2500K S01 24739 Th 4:00-6:30(17) (L. Simas-Almeida)

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 POBS2600A S01 16331 T 4:00-6:30(09) (L. Simas-Almeida)

POBS 2600C. Foundations of Literary Theory. Designed to provide a solid foundation on the development of literary theory from its ancient roots in Plato, Aristotle, Horace and Plotinus to the contemporary period. Includes Kant, the Russian Formalists, Lukács, Jakobson, Bakhtin, Barthes, Derrida, Ricoeur, Said and others. Conducted in English.
Spr POBS2600C S01 24741 M 3:00-5:30(13) (L. Valente)

POBS 2601M. Modern and Contemporary Brazilian Poetry. An intensive reading of selected Brazilian poets of the past eighty years, including Carlos Drummond de Andrade, João Cabral de Melo Neto, Mário Faustino, Paulo Leminski, Ana Cristina Cesar, the "concretistas", and Salgado Maranhão. Each student will be responsible for an oral presentation about an additional poet, to be chosen in consultation with the instructor. Conducted in Portuguese.
Fall POBS2600M S01 16332 W 3:00-5:30(17) (L. Valente)

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.
Fall POBS2970 S01 15176 Arranged "To Be Arranged"
Spr POBS2970 S01 24110 Arranged "To Be Arranged"

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 the Banner for the correct section number and CRN to use when registering for this course.
Spr POBS2980 S01 15177 "To Be Arranged"
Spr POBS2980 S01 24111 "To Be Arranged"

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 for a thesis.
Fall POBS2990 S01 15177 "To Be Arranged"
Spr POBS2990 S01 24111 "To Be Arranged"

Public Affairs

MPA 2040. Policy Analysis and Program Evaluation. 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.
Fall MPA2040 S01 16759 M-Th 2:30-3:50(03) "To Be Arranged"

MPA 2160. Management and Implementation in Public and Non-Profit Organizations. How and when can organizational leaders and staff become engines of policy and social change? How do the policies that elected officials, courts, and bureaucrats promulgate get put into practice? What affects whether those policies get put into practice? What affects whether those policies produce expected changes? This course is designed to help students identify and manage core challenges facing policy development, implementation, and sustainment in public organizations.
Spr MPA2160 S01 25587 MW 3:00-5:30 (S. Moffitt)

MPA 2230. Skills for Future Diplomats. Future diplomats, whether they work for governments, corporations or nonprofit entities, will find new opportunities and face new challenges in promoting their international goals. They will work in a world where power is more dispersed, where players other than governments have a major role, where issues and organizations are social, cultural, regional and global rather than the sole responsibility of nation states, and where scientific and technological innovations are constantly changing the agenda and paths to influence. This course will introduce students to some of the issues and practices that will prevail as they seek to influence governments and societies.
Fall MPA2230 S01 16771 F 9:00-11:30 (R. Boucher)

MPA 2800. Policy in Action Consultancy. The Policy in Action experience is designed to provide a rigorous and practical immersion with a client in a domestic or global community-based or institutional setting. The consultancy focuses on experiential learning and creative problem solving. Real world, complex contemporary problems are addressed, policy and practice-based solutions explored, strategies identified and future approaches recommended. Students conduct research to understand contemporary problems and issues and develop policy and practice-related solutions to address these issues and/or enhance an organization’s capacity.
Spr MPA2800 S01 25589 Arranged "To Be Arranged"

Public 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 19 first year students. Instructor permission required. FYR WRIT
Spr PHP0030 S01 24926 TTh 6:40-8:00PM(18) (T. Empkie)
PHP 050. Pain and the Human Condition: Exploring the Science, Medicine, and Culture of Pain.

Pain is a universal human experience, yet it is highly subjective. For most, pain represents an occasionally unpleasant, self-limited experience. However, for others, chronic pain persists beyond the recovery from an injury or as a result of a chronic health condition. Persons with chronic pain often describe their pain as permeating every aspect of their lives. While an active area of research, pain remains a significant challenge to the individual seeking treatment, the healthcare provider and society. This multidisciplinary course introduces students to scientific, medical, and public health aspects of pain and explores personal narratives and cultural meanings of pain. Enrollment limited to 19 first year students. FYS WRIT

Fall PHP050 S01 16849 TTh 9:00-10:20(02) (N. Trivedi)

PHP 0100. First year seminar: Statistics is everywhere.

Statistics is the universal language behind data-enabled decision making. Examples include Google's page ranking, Amazon's customer recommendations, weather prediction, medical care and political campaign strategy. This seminar will expose students to a variety of problems encountered in the media, in science and in life for which solutions require analysis of and drawing inferences from data. We will introduce basic concepts such as randomness, probability, variation, statistical significance, accuracy, bias and precision. The course will discuss statistical problems from reading assignments and material identified by the students. We will use simulation to illustrate basic concepts, though previous programing experience is not required. FYS

Fall PHP0100 S01 16662 TTh 1:00-2:20(10) (Z. Wu)

PHP 0310. Health Care in the United States.

An overview of the U.S. health care delivery system. The organization of the health care delivery system is examined. The current state of the system is described and the rationale for reform is provided. The course is intended for Public Health or statistic concentrators. Others can register with instructor's permission. This course covers the basic concepts of statistics and the statistical methods commonly used in the social sciences and public health with an emphasis on applications to real data. The first half of the course introduces descriptive statistics and the inferential statistical methods of analysis, regression, and analysis of variance. This is designed to be a first course in Statistics. The course is intended for Public Health or Statistics concentrators. Others can register with instructor's permission. There are no prerequisites.

Fall PHP0320 S01 15494 MWF 11:00-11:50(16) 'To Be Arranged'

PHP 0850. Fundamentals of Epidemiology

As the cornerstone of public health, a strong foundation in epidemiology provides students with the ability to investigate, certify and criticize claims of disease causation. This course provides students with a foundation in basic epidemiologic concepts and methods. Key measures of disease occurrence and effects used in epidemiology will be discussed; strengths and weaknesses of alternative epidemiologic study designs will be examined. Interpreting epidemiologic evidence to inform public health policy and practice will be emphasized throughout the course.

Open to Public Health concentrators and others by permission; Class limit 80.

Fall PHP0850 S01 15520 TTh 2:30-3:50(03) (S. Buka)

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. Required major term paper worth 50% of final grade is scholarly centerpiece of course. Weekly discussion sections and small group research projects supplement the two exams and term paper. Guest lecturers cover different diseases and public health perspectives. Enrollment limited to 65. DPLL WRIT

Fall PHP1070 S01 15517 MW 8:30-9:50(01) (S. McGarvey)

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 for Freshman and Sophomore students. Enrollment limited to 30. DPLL

Fall PHP1100 S01 15518 MW 10:00-11:20 (O. Galarraga)


The course is intended to challenge students from different disciplines to develop strategies to address the challenges of establishing and sustaining HIV/AIDS care and treatment programs in Africa. The course will begin with a general introduction to HIV/AIDS to provide a foundation wherein students will obtain a basic scientific and sociological understanding of the disease. Discussion topics on: the impact of AIDS, introducing antiretroviral therapy in Africa, monitoring and evaluating ARV therapy scale up and developing a country wide plan for a national laboratory system to support HIV/AIDS care and treatment will be facilitated through the use of case studies. Enrollment limited to 25 juniors and seniors. Graduate students with permission of instructor. DPLL

Spr PHP1400 S01 24437 T 4:00-5:30(16) (M. Ghee)


The course focuses on nutritional status influences on population health of low and middle income countries. It covers both 1) undernutrition, including protein-calorie malnutrition and specific micronutrient deficiencies; and 2) overnutrition, including obesity. It covers morbidity and mortality associated with under- and overnutrition. Nutritional aspects of maternal and child health and the association of nutritional exposures early in life and later adult health are emphasized Specific areas include nutritional status measurement, including body size and composition, dietary intake and physical activity, as well as household, community, and national, socioeconomic and political factors. Prerequisite: PHP 1070, 2120, 2150, or BIOL 0030. DPLL

Spr PHP1500 S01 24919 TTh 2:30-3:50(11) (S. McGarvey)

PHP 1501. Essentials of Data Analysis.

This course covers the basic concepts of statistics and the statistical methods commonly used in the social sciences and public health with an emphasis on applications to real data. The first half of the course introduces descriptive statistics and the inferential statistical methods of confidence intervals and significance tests. The second half introduces bivariate and multivariate methods, emphasizing contingency table analysis, regression, and analysis of variance. This is designed to be a first course in Statistics. The course is intended for Public Health or Statistics concentrators. Others can register with instructor's permission. There are no prerequisites.

Fall PHP1501 S01 15539 TTh 1:00-2:20(10) (R. Gutman)

PHP 1530. Case Studies in Public Health: The Role ofGovernments, Communities and Professions.

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.

Spr PHP1530 S01 24924 T 3:00-5:30 (P. Nolan)
**PHP 1600. Obesity in the 21st Century: Causes, Consequences and Countermeasures.**

The scope of obesity knowledge is too large to cover during one single course, therefore we will focus primarily on obesity-related health outcomes, assessment of obesity, obesity epidemiology, social and behavioral correlates of obesity, obesity and stigma, policy and interventions across population groups. The readings for this course are multi-disciplinary in nature and integrate epidemiological, biological, sociological, political and philosophical perspectives. This course is specific to the United States and thusly all readings will reflect this contextual focus. Enrollment limited to 30. DPLL

Spr PHP1600 S01 24499 M 3:00-5:30(13) (A. Keita)

**PHP 1680I. Pathology to Power: Disability, Health and Community.**

This course offers a comprehensive view of health and community concerns experienced by people with disabilities. Guest speakers, and hands-on field research involving interactions with people with disabilities will facilitate the students gaining a multi-layered understanding of the issues faced by people with disabilities and their families. DPLL

Fall PHP1680I S01 15871 W 3:00-5:30(17) (S. Skeels)

**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 65.

Fall PHP1700 S01 15510 F 1:00-3:30 (K. Kelsey)

**PHP 1710. Climate Change and Human Health.**

Global climate change is occurring and these changes have the potential to profoundly influence human health. This course provides students with a broad overview of the diverse impacts of projected climate change on human health, including effects of changing temperatures, extreme weather events, infectious and non-infectious waterborne threats, vector-borne disease, air pollution, the physical and built environment and policies to promote mitigation and adaptation. Students will explore multiple sides of controversial issues through lively and informed class discussions, writing exercises, and participation in a series of end-of-term debates. Enrollment is limited to 20 students.

Fall PHP1710 S01 15521 MW 1:30-2:50 (G. Wellenius)

**PHP 1854. The Epidemiology and Control of Infectious Diseases.**

Course objectives are to introduce students to key methods and concepts in the epidemiological study and control of infectious diseases. By the end of this course, students will have a clear understanding of the contribution, transmission, and pathogenesis of major infectious diseases that affect human populations. We will investigate methods to design and evaluate public health strategies to prevent or eliminate infectious diseases, including: outbreak investigation, disease surveillance, infection control, screening, and vaccination. The course is open to undergraduate students who have completed or are concurrently enrolled in either PHP2120 or PHP2150.

Spr PHP1854 S01 24500 MW 9:00-10:20 (B. Marshall)

**PHP 1900. Epidemiology of Disorders and Diseases of Childhood and Young Adulthood.**

Students will learn about diseases and disorders of childhood and young adulthood, including allergies, autism, eating disorders, obesity, endometriosis, and migraines. Students will learn how these disorders are defined, how many youth are impacted, and the age-appropriate epidemiologic methods to study disorders and diseases during childhood, adolescence, and young adulthood, respectively. For the final project, students will pick a disease or disorder of interest that occurs during childhood, adolescence, or young adulthood, synthesize the results from multiple epidemiological studies, and concisely present this information in a written report and an oral presentation.

Spr PHP1900 S01 25127 T 9:00-11:30 (A. Field)

**PHP 1910. Public Health Senior Seminar.**

The course provides an overarching capstone experience to Public Health seniors. It is designed to weave together 3 threads, specifically: (1) Capstone final written project based on Public Health concentration goals, including a systematic review or data analysis; (2) Formalizing and presenting career plans; (3) Learning and practicing key principles of effective workplace skills. The course provides opportunities to synthesize and reflect on the knowledge gained during the undergraduate program, provide support for solidifying effective next career steps, and provide important soft skills for excelling in the workplace. Prerequisite: PHP 0310 and 0320. Open to Senior Public Health concentrators only. WRIT

Fall PHP1910 S01 15495 W 3:00-5:30(17) (J. Ahuwalia)

**PHP 1964. Cancer Epidemiology and Prevention.**

This course is aimed at enhancing the knowledge and skills central to the subject domain of cancer epidemiology; and helping graduate students with a deep understanding of cancer etiology that can be translated into cancer prevention and control. We will exam cancer incidence and trends both in the U.S. and globally and interpret their implication for cancer etiology, and will critically analyze current evidence regarding the role of various major risk factors on human cancer risks by focusing on cancers with significant public health implication. The methods central to cancer prevention and control will be discussed.

Spr PHP1964 S01 24502 F 1:00-3:30 (T. Zheng)

**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 Public Health Concentration. WRIT

**PHP 2025. Including the Excluded: Global Health Ethics.**

This course explores the ethics of global public health engagement. Global health implementation is fraught with ethical conundrums. These ethical conundrums include the process of generating rigorous evidence, championing health as a human right, engaging global partners in meaningful collaborations, and implementing complex programs in low-resource settings. These ethical challenges are driven by North-South inequities and by differences in socioeconomic backgrounds, culture, language, and other intersectional identities. This course introduces scholars to global health ethics as a framework for tackling health disparities, grappling in a scholarly and practical way with the complex fabric of global health research, policy, and practice.

Fall PHP2025 S01 15872 F 9:00-11:30 (C. Kuo)

**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 analysis, systematic reviews and 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 or PHP 2150) and either PHP 2508, 2510, or 2520. Open to graduate students only.

Fall PHP2030 S01 15713 M 1:00-3:30 (I. Gareen)

**PHP 2090. Research Grant Writing for Public Health.**

This course focuses on providing knowledge and experience in creating high quality public health research grant applications. Course objectives include developing significant and innovative scientific hypotheses, learning principles of effective written communication, and developing a research grant application suitable to submit for funding. Designed for Public Health School PhD students, post-doctoral fellows, and Masters students with advanced degrees (e.g. MD, PhD). Prerequisite: PHP 2120 or PHP 2150 or instructor permission.

Fall PHP2090 S01 15715 W 9:30-12:00 (J. Braun)
PHP 2120. 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 PHP2120 S01 15523 TTh 10:30-11:50(13) (M. Lurie)

PHP 2130. Human Biology for Public Health. This course provides basic principles of human biology and its applications to public health. Examples of biology topics include the cardiovascular system, endocrine system, immune system, nervous system, genetics, cancer, cardiovascular disease, HIV/AIDS, and depression. Examples of applied topics include strengths and weaknesses of using biomarkers, accuracy and precision of biological measures, quality assurance and quality control methods for using biomarkers for public health research. Mixed teaching methods are used, including small group discussions, problem-based learning and guest lectures. Prerequisite: PHP 2120 (may be taken concurrently) or instructor permission. Enrollment limited to 20 graduate students.

Spr PHP2130 S01 24927 F 9:30-12:00 (K. Kelsey)

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 methods aimed at students who expect to eventually 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 15718 TTh 10:30-11:50(13) (T. Zheng)

PHP 2180. Interpretation and Application of Epidemiology. This course builds upon the foundation of introductory epidemiology and a basic understanding of quantitative and conceptual methods, with a focus on the interpretation of the strength and meaning of epidemiologic findings. The goal is to help students develop critical thinking skills in order to become more sophisticated interpreters of epidemiologic evidence for guiding policy, clinical practice, and individual decisions, combining subject matter knowledge and epidemiologic methods to wisely evaluate the available research findings. We will focus on judging causality and identifying gaps that future research would need to fill to strengthen our understanding. Prerequisite required or permission of instructor.

Spr PHP2180 S01 24930 M 9:00-11:30 (D. Savitz)

PHP 2200. Intermediate Methods in Epidemiologic Research. This second course in epidemiologic methods reinforces the concepts and methods taught in PHP 2150, with in-depth instruction in issues of study design, assessing threats to study validity including confounding and selection bias, and analyzing data with standard regression models. The course emphasizes hands-on learning and includes a combination of didactic lectures, discussions of methodologic papers, and a required laboratory component where students will learn to apply the concepts learned in class to real-world problems. Prerequisites: PHP 2150 and either 2510 or 2507, or permission of the instructor. Co-requisite: PHP 2511 or 2508.

Spr PHP2200 S01 24931 MW 1:00-2:20 (G. Wellenius)

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.

Fall PHP2220C S01 15513 M 3:30-6:00 (D. Savitz)

PHP 2220E. Topics in Environmental and Occupational Epidemiology. This course introduces students to the epidemiological study of historical and contemporary environmental/occupational agents, focusing on study design, biases, and methodological tools used to evaluate and extend the evidence linking exposures to human disease. The course will discuss applications, strengths, and limitations of different study designs and their use in studying specific environmental agents. Didactic lectures and student-led discussions will be used to provide students with a basic understanding of and the tools to apply/extend their knowledge of specific environmental agents (endocrine disruptors) and special topics (children's neurodevelopment). Prerequisite: PHP 2120, PHP 2150, or equivalent. Undergraduates with PHP 0850 and instructor's permission.

Spr PHP2220E S01 24933 Th 9:30-12:00 (J. Braun)

PHP 2220H. The Epidemiology, Treatment and Prevention of HIV. The purpose of this seminar is to use HIV as an example to introduce students to a variety of methodological issues in the epidemiologic study of infectious diseases. While we will study the treatment and prevention of HIV in detail, emphasizing the current state of knowledge and critiquing the most recent literature, this course aims to use HIV as an example to better understand the variety of methodological issues in global and domestic infectious disease epidemiology today. Enrollment limited to 25 students. Prerequisites: PHP 0850 or PHP 1854 (undergraduates); PHP 2120 or 2150 and PHP 2508 or 2511 (graduate students).

Fall PHP2220H S01 15810 Th 2:30-5:00 (M. Lurie)

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 15811 Th 1:00-2:20(10) (C. Howe)

PHP 2325. Place Matters: Exploring Community-Level Contexts on Health Behaviors, Outcomes and Disparities. There is growing recognition among researchers, public health practitioners and policymakers that place matters for health behaviors and health outcomes. But what is place, and why does it matter? As with many health-related outcomes, the prevalence of ill health is unequally distributed across populations with certain features playing significant roles on health. In this course, we will explore the features of community environments and the associations with health behaviors (e.g. physical activity, preventive care, alcohol, sexual behaviors) and health outcomes (e.g. obesity, cardiovascular disease and mental health). This course is specific to the US.

Fall PHP2325 S01 15874 T 9:00-11:30 (A. Kelta)
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 Public Health concentrators. Enrollment limited to 25.
Fall PHP2340 S01 15875 T 12:00-2:30 (D. Williams)

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 15877 F 1:15-3:45 (P. Monti)

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 understanding of the role of health communication through a final research project. Seniors with concentration in Public Health may enroll with instructor's permission. Enrollment limited to 20 graduate and medical students. DPLL
Spr PHP2380 S01 24935 M 2:30-5:00 (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 Health Sciences the requisite skills to conduct analyses of behavioral data as part of their Master's Thesis. Enrollment limited to 15 graduate students in the BSBS Master's program and the MPH program.
Fall PHP2390 S01 15878 MTh 2:00-3:20 (C. Kahler)

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 16869 Th 12:00-2:30 (V. Mor)

PHP 2415. Introduction to Evidence-based Medicine.
Unbiased assessments of the scientific literature by means of research synthesis methods are critical for formulating public health policy, counseling patients or prioritizing future research. We focus on the methods and uses of systematic reviews and meta-analyses and their applications in medicine and health policy. After course completion, and with some direction, students will be able to undertake a basic systematic review or meta-analysis. Enrollment limited to 15. Prerequisites: PHP 2120, 2150, or 2460; and PHP 2507/08 or 2510/11 (2508 and 2511 may be taken concurrently); and clinical background or training in basic concepts in medicine (must discuss with instructor).
Spr PHP2415 S01 24936 W 9:00-11:30 (T. Trikalinos)

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 16870 M 3:00-5:30(05) (A. Trived)

PHP 2451. Exchange Scholar Program.
Fall PHP2451 S01 15170 Arranged 'To Be Arranged'

PHP 2455A. Health Services Research Methods I.
Health services researchers use theories, models, and data to understand the health care system, assess the effectiveness of interventions (at multiple levels of the healthcare system), and inform health policy decisions. This course reviews the application of statistical and epidemiological principles to the design and analysis of health services research studies. The goal is to familiarize students with common study designs and methods in health services research, so that they can critically review the published literature and use these approaches in their own research.
Fall PHP2455A S01 16871 F 10:00-12:30 (I. Dahabreh)

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 and CTR students. Instructor permission required.
Fall PHP2507 S01 16883 W 6:30-8:00PM (A. Gjelsvik)
Fall PHP2507 S01 16883 Th 1:00-2:20 (A. Gjelsvik)

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 address 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 25487 W 6:30-8:00PM (A. Gjelsvik)
Spr PHP2508 S01 25487 Th 1:00-2:20 (A. Gjelsvik)
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 15964 TTh 9:00-10:20(02) "To Be Arranged"

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.
Spr PHP2511 S01 25486 MW 10:30-11:50 (A. Sullivan)

PHP 2514. Applied Generalized Linear Models.
This course provides a survey of generalized linear models (GLMs) for outcomes including continuous, binary, count, survival and correlated data. This course will work through the basic theories of GLMs. Emphasis will be on understanding the implications of this theory and the applications to solving real data problems. Extensive use of computer programming will be required to analyze the data in this class. This course is designed for graduate and advanced undergraduate students who will be analyzing data and want to develop a practical hands on toolkit as well as understanding of the theoretical underpinnings of regression.
Spr PHP2514 S01 25494 MW 9:00-10:20 (C. Schmid)

This course will provide an introduction to probability theory, mathematical statistics and their application to biostatistics. The emphasis of the course will be on basic mathematical and probabilistic concepts that form the basis for statistical inference. The course will cover fundamental ideas of probability, some simple statistical models (normal, binomial, exponential and Poisson), sample and population moments, finite and approximate sampling distributions, point and interval estimation, and hypothesis testing. Examples of their use in modeling will also be discussed.
Fall PHP2515 S01 16743 MW 9:00-10:20 (A. Sullivan)

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 16745 MW 9:00-10:20 (Z. Wu)

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.
Spr PHP2530 S01 25495 TTh 1:00-2:20(08) (R. Gutman)

PHP 2550. Practical Data Analysis.
Covers practical skills required for successful analysis of scientific data including statistical programming, data management, exploratory data analysis, simulation and model building and checking. Tools will be developed through a series of case studies based on different types of data requiring a variety of statistical methods. Modern regression techniques such as cross-validation, bootstrapping, splines and bias-variance tradeoff will be emphasized. Students should be familiar with statistical inference as well as regression analysis. The course will use the R programming language.
Fall PHP2550 S01 16746 MW 10:30-11:50 (C. Schmid)

PHP 2560. Statistical Programming with R.
Statistical computing is an essential part of analysis. Statisticians need not only be able to run existing computer software but understand how that software functions. Students will learn fundamental concepts – Data Management, Data types, Data cleaning and manipulation, databases, graphics, functions, loops, simulation and Markov Chain Monte Carlo through working with various statistical analysis. Students will learn to write code in an organized fashion with comments. This course will be taught using both R and Julia languages in a flipped format.
Fall PHP2560 S01 16747 W 1:00-4:00 (A. Sullivan)

PHP 2561. Methods in Informatics and Data Science for Health.
This course will teach informatics and data science skills needed for research in public health and biomedicine. Particular emphasis will be given to formalisms and algorithms used within the context of biomedical research and health care, including those used in biomolecular sequence analysis, electronic health records, clinical decision support, and public health surveillance. General programming language skills will be taught (in Julia) within these contexts. Mastery of informatics and data science skills will be assessed by a final project done within a health or biomedical context.
Spr PHP2561 S01 25496 TTh 10:30-11:50(09) (N. Sarkar)

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 25497 MW 10:30-11:50 (C. Gatsonis)

PHP 2601. Linear Models.
This course will focus on the theory and applications of linear models for continuous responses. Linear models deal with continuously distributed outcomes and assume that the outcomes are linear combinations of observed predictor variables and unknown parameters, to which independently distributed errors are added. Topics include matrix algebra, multivariate normal theory, estimation and inference for linear models, and model diagnostics. Prerequisites: APMA 1650 or 1660, or taking PHP 2520 concurrently.

Note: The course will cover fundamental and advanced topics in linear models, and concepts related to the generalized linear models will not be covered during the course.
Fall PHP2601 S01 15955 TTh 1:00-2:20(10) "To Be Arranged"

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.
Fall PHP2610 S01 16877 TTh 9:00-10:20(02) "To Be Arranged"
PHP 2650. Statistical Learning and Big Data.
This course introduces modern statistical tools to analyze big data, including three interconnected components: computing tools, statistical machine learning, and scalable algorithms. It introduces the principal techniques: extract and organize data from complex sources, explore patterns, frame statistical problems, build computational algorithms, and disseminate reproducible research. Topics include web data extraction, database management, exploratory data analysis, dimension reduction, convex optimization algorithms, high-dimensional linear/nonlinear models, tree/ensemble methods, and predictive modeling. These techniques are illustrated using big data examples from many scientific disciplines. This course is open to graduate students and advanced undergraduate students pursuing degrees in science, technology, engineering, or mathematics. Students should have taken: either one course from: PHP 2510, PHP 2511, PHP 2550, APMA 2610; OR one course from: APMA 1690, APMA 1720, APMA 1930B, CSCI 0150, CSCI 0170; AND one course from: MATH 0520, MATH 0540. Students may ask permissions from the instructor for waiving this requirement. Students are also required to have some experience with any scripting language.
Spr PHP2650 S01 25493 TTh 10:30-11:50(09) (X. Luo)

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, behavioral and health sciences, and public health in general. The main goal is to expose students to current methodological issues and controversies, in an effort to integrate knowledge across disciplines. This seminar is only open to doctoral students in Epidemiology, Behavioral and Social Health Sciences, Biostatistics and Health Services Research.
Fall PHP2950 S01 15956 F 1:00-1:50 (K. Carey)

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.
Fall PHP2990 S01 15171 Arranged (K. Kelsey)
Spr PHP2990 S01 24106 Arranged 'To Be Arranged'

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

Public Policy

PLCY 1000. 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 PLCY1000 S01 15867 TTh 2:30-3:50(03) 'To Be Arranged'

PLCY 1200. Program Evaluation.
Students in this course will become familiar with the concepts, methods, and applications of evaluation. We will build intuition around the experimental and quasi-experimental method commonly used in practice so that students learn how to interpret evaluation results, read evaluation research critically, and understand the pros/cons of each method. We will draw on illustrations and case studies from a variety of substantive policy areas. Students must have completed PLCY 0100. In addition, you must have completed one of the following: POLS 1600, EDUC 1110, SOC 1100, or ECON 1620. If you have not completed these prerequisites, you must receive written permission to enroll in the course.
Spr PLCY1200 S01 25579 TTh 1:00-2:20(08) 'To Be Arranged'

PLCY 1400. Ethics and Public Policy.
What are the moral foundations of public policy analysis? How should individuals act when faced with ethical dilemmas in public life? This course will engage those questions in depth, beginning with case studies in ethics and policy and moving to cases involving ethical quandaries and moral dilemmas in public life.
Fall PLCY1400 S01 15866 TTh 1:00-2:20(10) 'To Be Arranged'

PLCY 1600. Economics for Public Policy.
This course examines the role of the public sector in the economy. We begin by exploring when and how the government intervenes in the economy. We also consider the impact of government intervention. We then use this theoretical foundation to examine current issues in expenditure, education, health, retirement, business competition, environment, cybersecurity, crime, financial, and tax policy. The student will acquire analytical skills to better evaluate existing and alternative public policy alternatives. Qualitative and quantitative methods will be used throughout the course. Class sessions require a significant degree of student participation.
Fall PLCY1600 S01 16760 TTh 10:30-11:50(13) 'To Be Arranged'

PLCY 1700M. Law and Public Policy.
This course will give students an introduction to business organizations – the law that governs corporations and partnerships, how they raise money in the financial markets, and to explore the public policy issues that inform the regulation of business and finance. We will look at business organizations, law that governs how companies raise money, operation of the stock markets, insider trading, and the regulation of institutional investors including mutual funds, hedge funds and private equity funds. We will finish by taking up corporations as persons, their social obligations and the recent Supreme Court cases on corporations and the First Amendment.
Spr. PLCY1700M S01 25641 T 4:00-6:30(16) (A. Gabinet)

PLCY 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.
Spr. PLCY1701H S01 25652 F 9:00-11:30 (R. Arenberg)

This course examines the range of approaches to making social change through democratic institutions and processes in the U.S. These approaches-- direct service, community organizing, policy/politics, philanthropy, social entrepreneurship and research/scholarship-- have different value systems, methodologies, strengths and limitations. There’s no one “right” approach, and the modes often intersect in ways that can be mutually reinforcing or counterproductive. The course will be valuable to students interested in being involved in social change during their time at Brown and in their future careers.
Fall PLCY1800 S01 17048 T 4:00-6:30(09) 'To Be Arranged'
This course is the required reflection seminar for participants in the Brown in Washington, D.C. program. The course is grounded in the 25 hour/week practicum that each student will complete during the semester. Potential placement sites include: government/public sector agencies (e.g., federal cabinet agencies, Congressional offices, state or municipal executive or legislative offices); not-for-profit organizations; and other organizations with a mission to support a range of types of work/placements for students. The seminar will examine issues in engaged scholarship and civic engagement through readings, case studies, participatory activities, and guest speakers.
Fall PLCY1822 S01 17051 Arranged (A. Hance)
Spr PLCY1822 S01 25638 Arranged (A. Hance)

The Brown in Washington, D.C. practicum course is designed to provide students with a hands-on learning experience to complement their academic work at Brown. The course will feature 25-hour/week internships assigned to students based on their personal interests, policy interests, and post-Brown career objectives.
Students will be able to reflect on this internship experience and how it relates to their academic and post-Brown life during weekly reflection seminar classes that will also include career skill development sessions that can be directly applied to the internship experience and beyond.
Spr PLCY1823 S01 25640 Arranged (A. Hance)

PLCY 1970. Independent Reading and Research.
Supervised reading or research. Specific program arranged in terms of the student's individual needs and interests. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

PLCY 1971. Independent Reading and Research.
See Independent Reading And Research (PPAI 1970) 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.

PLCY 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.
Fall PLCY1990 S01 17050 Arranged (A. Levitas)

See Public Policy Colloquium (PPAI 1990) 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.

PLCY 2450. Exchange Scholar Program.
Fall PLCY2450 S01 15175 Arranged 'To Be Arranged'

PLCY 2980. Graduate Independent Study.
Please check Banner for the correct section number and CRN to use when registering for this course.

Religious Studies
Contemplative Studies

COST 0145. Karma, Rebirth and Liberation: Life and Death in South Asian Religions.
Karma, Sanskrit for the "action" that makes up a human life, has been a central concern for the religious traditions of South Asia throughout their history. Hinduism, Buddhism and Jainism share the belief that after death people are reborn, taking on lives according to their actions in lives previous. In these traditions, liberation from the cycle of rebirth becomes the ultimate goal of human existence. This course examines the ideas of karma, rebirth and liberation in Hinduism, Buddhism and Jainism from historical, cosmological, ritual, narrative, iconographic and theological points of view. We also look at these ideas in Western culture. DPLL WRIT Fall COST10145 S01 15958 TTh 1:00-2:20(03) 'To Be Arranged'

COST 0200. Meditation and the Brain.
This course provides an exploration and critique of psychological and neuroscientific research on meditation by situating the current applications of meditation in the West in the broader historical context of the development of Buddhism. In this course, we will critically evaluate the findings of scientific and clinical studies of meditation in terms of their methodological rigor, implicit assumptions, and biases. We will also study the transmission of Buddhism from Asia to the West in order to understand the influence of Buddhist norms and worldviews on contemporary applications of meditation. This course will also feature first-person experiential learning in select meditation practices.
Fall COST2020 S01 16855 M 3:00-5:30(05) (J. Lindahl)

COST 0425. The History and Practice of Yoga in India and Beyond.
From its roots in premodern India to its current popularity worldwide, yoga has a rich complex history. As a practice of the mind, body, and spirit, yoga has taken many forms—meditation, chanting, breath control, postures—in order to achieve a range of goals: liberation from rebirth, supernatural powers, strength, pleasure, peace, wellness. As its reputation and commodification have increased, yoga has attracted deep interest, debate, and even controversy. In this course we will study yoga from its earliest texts to its status in the modern world, addressing its historical, religious, social, and political ramifications in many different contexts.
WRIT Spr COST0425 S01 24438 T 4:00-6:30(16) 'To Be Arranged'

The search for true happiness is as relevant today as it was 2500 years ago in South and East Asia. Is it attained through sense pleasures or through spiritual satisfaction? Attained through self-indulgence or through self-denial? Can you be completely and truly satisfied in life if you flourish while others suffer? What are the roles of compassion for self and others and of mindfulness and meditation in the creation of a life of genuine happiness? This course will explore these issues through readings in the Buddhist, Confucian, and Daoist traditions and via recent scientific research on mindfulness, meditation and compassion.
Fall COST0570 S01 16470 T 6:40-8:00PM (H. Roth)

COST Individual Study Project Semester 1, 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.

COST 1920. Individual Study Project - Semester 2.
COST Individual Study Project Semester 2, 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.

COST 1950. Senior Concentrators' Seminar.
A selection of topical readings that will enable concentrators in the Sciences and Humanities Tracks of the concentration to synthesize their knowledge of the field of Contemplative Studies and its current principal issues. Students will also share ideas and methods regarding the research and writing of their Capstone Projects, which typically they will be working on concurrently via their other course.
Fall COST1950 S01 15530 W 3:00-5:30(17) (H. Roth)
COST 1080. Thesis Preparation.
Required of seniors in the honors program, (second semester of two-semester sequence that includes COST 1950 in first semester). Open to others only by permission of the Director. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Religious Studies
RELS 0015. Sacred Stories. 
What do stories do? How do stories underlie who we are, where we are, or why our world is as it is? Ancient religious stories have been formative for western culture in all of its expressions, lasting into our modern, secularized times. Sacred stories underlie how we think about life, death, suffering, or joy. How do they work? This course will examine narrativity - the telling, sharing, and contesting of stories - as a means for constructing and maintaining religious identity, community, and world view in western history. Jewish, Christian, and Muslim materials. Lecture and discussion. DPLL WRIT
Spr RELS0015 S01 24219 MWF 12:00-12:50(05) (S. Harvey)

RELS 0045. Buddhism and Death.
Death is universal but seldom discussed in contemporary culture. In this class we will address how the varieties of Buddhist religion represent and understand dying, death, and the afterlife. Using images, films, and texts, we will ask, How should we die? How does death influence the living? Is there an afterlife? What should be done with dead bodies? The class will move between theories and practices, and past and current events. Coming to terms with these diverse materials may reveal to us some of our own assumptions about death, dying, and the afterlife. WRIT
Spr RELS0045 S01 24220 TTh 10:30-11:50(09) (J. Protass)

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? WRIT
Spr RELS0068 S01 24221 MWF 11:00-11:50(04) (S. Bush)

An introduction to visual, literary, and dramatic expressions of Japan's moral and aesthetic values in the early modern period (17th-19th centuries). We will seek to identify recurring intellectual and cultural patterns, as illustrated in woodblock prints, Kabuki, puppet theatre, and popular fiction, with an eye to connections with later popular culture. Course materials are primary readings in translation, secondary scholarship, and audiovisual works. No previous knowledge of Japan or Japanese language is expected.
Fall RELS0082 S01 15491 TTh 10:30-11:50(13) (J. Sawada)

RELS 0088. Judaism, Christianity, and Islam.
A survey of the history and major beliefs and rituals of Judaism, Christianity, and Islam, with special attention to issues of contemporary concern. Will serve also to introduce basic methods for studying religion in an academic context.
Spr RELS0088 S01 25578 TTh 2:30-3:50(11) (M. Slatow)

RELS 0090K. Christmas in America.
This course explores how Christmas became a religious, consumer, and social extravaganzia. Every year, many Americans devote several months to preparing for and recovering from Christmas. Most participate as Christians, but others participate despite other religious identities. Yet Christmas has not always loomed so large. Through encounters with such phenomena as sacred stories, consumer practices, and legal controversies, this course invites students to ask how and why Christmas became an important event. By the end of the course, students not only will recognize how religion and culture take shape together but also will appreciate how popular practices develop. FYS WRIT
Fall RELS0090K S01 15492 Th 4:00-6:30(04) (D. Vacca)

RELS 0100. Buddhist Thought, Practice, and Society.
From its beginnings to the 21st century. Principal teachings and practices, institutional and social forms, and artistic and iconographical expressions. Fall RELS0100 S01 15498 MWF 10:00-10:50(14) (J. Protass)

RELS 0110. Christians.
A historical survey of Christianity from its foundations to the present, tracing its development into three main branches: Orthodox, Catholic, and Protestant. Readings from a variety of Christian "classics" accompany the survey, pursuing the theme of how-in different times, places, and circumstances-Christians have understood their relations to the divine and to the world. WRIT
Fall RELS0110 S01 15499 MWF 12:00-12:50(12) (S. Harvey)

RELS 0145. Karma, Rebirth and Liberation: Life and Death in South Asian Religions
Karma, Sanskrit for the "action" that makes up a human life, has been a central concern for the religious traditions of South Asia throughout their history. Hinduism, Buddhism and Jainism share the belief that after death people are reborn, taking on lives according to their actions in lives previous. In these traditions, liberation from the cycle of rebirth becomes the ultimate goal of human existence. This course examines the ideas of karma, rebirth and liberation in Hinduism, Buddhism and Jainism from historical, cosmological, ritual, narrative, iconographic and theological points of view. We also look at these ideas in Western culture. DPLL WRIT
Fall RELS0145 S01 15957 TTh 1:00-2:20(03) "To Be Arranged"

RELS 0200A. Christianity and Economic Inequality.
In the face of the vast, increasing economic inequality, this sophomore seminar interrogates the role of religious institutions and individuals. Do our religious institutions sustain or challenge economic inequality, and how? We will attempt to answer this question with a focus on three types of texts: classical texts that shaped 20th Century U.S. Christian consciousness (e.g., Weber, Niebuhr, and Ayn Rand); contemporary works that analyze the effects of economic inequality on the social fabric (e.g., Stiglitz, Freeland, Wilkinson/Picket); and texts that clarify the vital roles some contemporary religious movements are playing in supporting economic inequality (e.g., Bowler, Walton, Byrne). SOPH
Fall RELS0200A S01 15500 M 5:35-6:00PM (A. Willis)

RELS 0258. Art, Morality, and Religion.
Art is supposed to please us with its beauty or provoke us with its message. Can it also affect our moral life? If so, how? This course examines influential attempts to explain the relationship between art, including literature, and morality. Religion and mysticism play a role in the theory of art for some authors, and we will study this theme as well, asking questions such as whether aesthetic experiences are analogous to religious ones. We will read theorists such as Bataille, Murdoch, Nehamas, and Nussbaum. We will also read literary works that illustrate the theories. Fall RELS0258 S01 15947 TTh 10:30-11:50(13) (S. Bush)

RELS 0290D. Islamic Sexualities.
In this course we examine gender and sexuality in Muslim cultures, as well the ways in which Islam is imagined in relationship to gender and sexuality. We will think about how particular constructions of gender and sexuality affect the representation of Islam and Muslims in the US and abroad, especially in films and documentaries, which form a critical component of this course. Students will learn to engage with and complicate key terms and themes including "masculinity," "cultural difference," "women's and LGBT rights," and "modernity/civilization" that are widely, and often uncritically, deployed in current representations of Islamic culture.
Fall RELS0290D S01 15501 TTh 1:00-2:20(10) (N. Khalek)
RELS 0290H. Defense Against the Dark Arts in the Ancient World.
Alongside their Jewish and Pagan neighbors, ancient Christians sought to control and defend themselves against unseen forces teeming around them. They bound powerful angels to their will and harnessed the spirits of the recently deceased to activate their spells. Though none found the Elixir of Life, they left behind spells, recipes, and talismans as evidence of their quest to master spirits both hostile and sympathetic. This course will interrogate Christian and non-Christian conceptions of magic, its relationship with “religion” and “philosophy,” contextualize Christian magical practices alongside their neighbors, and conclude by examining the reception of “magic” into the modern West.

Fall RELS0290HS01 16957 MWF 2:00-2:50(07)  "To Be Arranged"

RELS 0415. Ancient Christian Culture.
How did the Jesus movement that originated in a backwater of the Roman Empire become the Empire’s dominant religion? What was it like to be a Christian in a world full of religions, cults and philosophical traditions, and of diverse social and cultural identities? An introduction to the history of early Christianity, and to the ancient Christian culture through the exploration of selected topics by means of textual, material and epigraphic evidence. Multiple Christianities; literacy and orality; visual culture; the episcopal authority; wealth and poverty; asceticism and monasticism; hagiography and the cult of saints; sacred landscape and pilgrimage; women, gender; burial.

Fall RELS0415 S01 15502 TTh 9:00-10:20(02)  (D. Ivanishevic)

RELS 0525. The History and Practice of Yoga in India and Beyond.
From its roots in premodern India to its current popularity worldwide, yoga has a rich complex history. As a practice of the mind, body, and spirit, yoga has taken many forms—meditation, chanting, breath control, postures—in order to achieve a range of goals: liberation from rebirth,supernatural powers, strength, pleasure, peace, wellness. As its reputation and commodification have increased, yoga has attracted deep interest, debate, and even controversy. In this course we will study yoga from its earliest texts to its status in the modern world, addressing its historical, religious, social, and political ramifications in many different contexts.

WRIT  Spr RELS0525 S01 24435 T 4:00-6:30(16)  "To Be Arranged"

The search for true happiness is as relevant today as it was 2500 years ago in South and East Asia. Is it attained through sense pleasures or through spiritual satisfaction? Attained through self-indulgence or through self-denial? Can you be completely and truly satisfied in life if you flourish while others suffer? What are the roles of compassion for self and others and of mindfulness and meditation in the creation of a life of genuine advancement towards God? How did they utilize erotic desire as an ontological aspect of embodiment? What sorts of relationships, lived union? Seminar. WRIT

Fall RELS0570 S01 16459 T 6:40-9:00PM  (H. Roth)

RELS 0600A. Islam Today: Religion and Culture in the Modern Middle East and Beyond.
Lupe Fiasco, Al-Jazeera News, the so-called Arab Spring, surreal sectarianism 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 the world, 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 the Middle East and beyond, including America and Europe. WRIT DPLL

Spr RELS0600AAS01 24223 TTh 1:00-2:20(08)  (N. Khalek)

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. DPLL

Fall RELS0825 S01 15503 MWF 1:00-1:50(06)  (A. Willis)

"Religious freedom," former Secretary Hilary Rodham Clinton remarked in 2009, “provides a cornerstone for every healthy society.” It is, Clinton continued, “a founding principle of our nation.” As Clinton’s remarks illustrate, the concept of religious freedom is central to how people perceive the history of the United States and its position in the world today. But what is religious freedom? Does it actually exist? Has it ever? This seminar invites students to ask and answer these and other questions about the contested concept, engaging such varied issues as race, secularism, law, media, money, pluralism, and foreign policy. DPLL WRIT

Spr RELS0845 S01 24224 W 3:00-5:30(10)  (D. Vaca)

RELS 0950. Japanese Buddhist Literature.
Buddhists have long expressed their concerns in poetry, popular tales, drama, and fiction. The aim of this course is to foster understanding of Buddhist values and sensibilities by identifying and analyzing characteristic themes in the literature of Japan, rather than by studying formal scriptures and doctrinal tracts. We will concentrate on key issues in the relationship between Buddhism and the Japanese literary arts, such as the tension between poetic activity and the religious quest; didacticism in Buddhist tales; the role of travel in the creative process; and recurrent themes such as renunciation, impermanence, sin, and enlightenment.

Spr RELS0950 S01 24233 TTh 2:30-5:30(11)  (J. Sawada)

Intensive introduction to classical and contemporary theories of religion and the principal methods for the study of religion. Junior seminar for religious studies concentrators. Enrollment limited to 25. WRIT

Fall RELS1000 S01 15524 W 3:00-5:30(17)  (P. Nahme)

RELS 1320. Social World of the Early Christians.
The followers of Jesus created a movement that spread quickly from rural Galilee to the largest cities of the Roman Empire, ultimately to become the largest religion in the world. Increasingly, scholars write a history of the early movement by learning more about its historical context, the Jewish, Greek, and Roman worlds. The fascinating texts of the followers of Jesus will be studied in comparison to equally fascinating non-Christian texts, with a focus on social categories: patterns of new religious movements, with reference to race, class, gender, ability, and other categories.

Fall RELS1320 S01 16956 M 3:00-5:30(05)  (L. Willis)

RELS 1325D. Desire and the Sacred.
Relationality, sexuality, and the quest for holiness in medieval and Byzantine Christianity. How did medieval and Byzantine Christians understand human relationships as instrumental in the human advancement towards God? How did they utilize erotic desire as an ontological aspect of embodiment? What sorts of relationships, lived in what kinds of social arrangements, enabled pursuit of human divine union? Seminar. WRIT

Fall RELS1325DS01 15525 Th 4:00-6:30(04)  (S. Harvey)

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.

Fall RELS1370BS01 15526 M 3:00-5:30(05)  (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 our work in philosophy of religion? Previous coursework in philosophy or philosophy of religion strongly advised. Enrollment limited to 20.

Spr RELS1370CS01 24226 M 3:00-5:30(13)  (A. Willis)
This is an advanced course concerning the modern study of Buddhism in Chinese history. Weekly readings include content from major movements over eighteen hundred years. In-class seminar discussions emphasize modern methods, sources, and scholarly assumptions. We will revisit foundational debates from the 20th century, such as the competing models of ‘Sinification of Buddhism’ and ‘Buddhist conquest of China.’ We will also read recent publications that study Buddhism in China through lenses of cultural and material history. Students will lead book discussions each week, and complete a final seminar paper.
Fall RELS1405 S01 17049 W 3:00-5:30(17) (J. Protass)

RELS 1440. Themes in Japanese Buddhism.
An exploration of critical themes and debates in the study of Japanese Buddhism. Participants become conversant with the key features of medieval Japanese thought as well as the strengths and weaknesses of established conceptual models in Japanese Buddhist studies. Readings include primary texts in English translation and modern secondary interpretations. Recommended: a course in Buddhism or East Asian religions. DPLL
Fall RELS1440 S01 15527 TTh 2:30-3:50(03) (J. Sawada)

RELS 1510. Islam in South Asia.
A survey of Muslim presence in South Asia. We will trace historical development of communities, including the arrival of Muslims in the subcontinent, establishment of various polities in the medieval period, and the evolution of modern colonial and postcolonial states. Paying attention to religious ideas, literary expression in numerous languages, and art and architecture, we will treat Islam as a multidimensional factor embedded within diverse South Asian intellectual and cultural contexts. Readings include original materials in translation and academic studies from various humanities and social science fields.
Spr RELS1510 S01 24227 Th 4:00-6:30(17) (S. Bashir)

RELS 1530B. Heresy and Orthodoxy in Islamic Thought.
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.
Fall RELS1530B S01 15528 W 3:00-5:30(17) (N. Khalek)

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.
Fall RELS1990 S01 17150 Arranged

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.

Readings in the Mishnah and related rabbinic literature. While the focus will be on gaining textual skills, we will also survey academic approaches to the Mishnah: What is the Mishnah and its relationship to earlier and contemporaneous texts? How was it composed, transmitted, and received? Prerequisite: Reading knowledge of Hebrew.
Fall RELS2100G S01 15529 T 12:00-2:30 (M. Satlow)

RELS 2160. Aramaic Readings.
A survey of epigraphic and biblical Aramaic intended for doctoral students and others with sufficient background in Aramaic grammar.
Spr RELS2160 S01 24228 M 5:35-8:05PM (S. Oyan)

RELS 2300B. Huai-nan Tzu.
No description available.
Spr RELS2300B S01 24230 Th 4:00-6:30(17) (H. Roth)

RELS 2350D. Studies in Japanese Religions.
Intensive study of the history of Japanese religions with attention to major scholarly issues in the field.
Spr RELS2350D S01 25346 W 3:00-5:30(10) (J. Sawada)

RELS 2380A. Chinese Buddhist Texts.
Each week we will engage in close reading through translation of Buddhist texts in the original Chinese. Selections will draw from sutras, commentaries, prefaces, colophons, biographies, and Chan literature. The course introduces research methods, major sources, dictionaries, and digital tools, and culminates in a seminar paper demonstrating original research using the tools and methods practiced in class. Prerequisite: Reading competence in classical Chinese.
Spr RELS2380A S01 24229 F 3:00-5:30(15) (J. Protass)

RELS 2450. Exchange Scholar Program.
Fall RELS2450 S01 15180 Arranged 'To Be Arranged'

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.
Fall RELS2890 S01 15181 Arranged 'To Be Arranged'
Spr RELS2890 S01 24114 Arranged 'To Be Arranged'

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.
Fall RELS2990 S01 15182 Arranged 'To Be Arranged'
Spr RELS2990 S01 24115 Arranged 'To Be Arranged'

Renaissance and Early Modern Studies

REMS 0100C. Altered States (ENGL 0100C).
Interested students must register for ENGL 0100C.
Fall REMS0100C S01 17181 Arranged 'To Be Arranged'

REMS 0150Z. Hamlet/Post-Hamlet (ENGL 0150Z).
Interested students must register for ENGL0150Z.
Fall REMS0150Z S01 17175 Arranged 'To Be Arranged'

Interested students must register for POBS 0910.
Fall REMS0910 S01 17130 Arranged 'To Be Arranged'

REMS 1000B. Littérature et culture (FREN 1000B).
Interested students must register for FREN 1000B.
Fall REMS1000B S01 17138 Arranged 'To Be Arranged'

REMS 1040B. Théâtre du XVIIe siècle (FREN 1040B).
Interested students must register for FREN 1040B.
Spr REMS1040B S01 25675 Arranged 'To Be Arranged'

REMS 1266C. English History, 1529-1660 (HIST 1266C).
Interested students must register for HIST 1266C.
Fall REMS1266C S01 17132 Arranged 'To Be Arranged'

REMS 1266D. British History, 1660-1800 (HIST 1266D).
Interested students must register for HIST 1266D.
Spr REMS1266D S01 25718 Arranged 'To Be Arranged'

REMS 1361L. Milton (ENGL 1361L).
Interested students must register for ENGL 1361L.
Spr REMS1361L S01 25731 Arranged 'To Be Arranged'

Interested students must register for HIST 1964D.
Spr REMS1964D S01 25719 Arranged 'To Be Arranged'

REMS 1964F. Early Modern Ireland (HIST 1964F).
Interested students must register for HIST 1964F.
Fall REMS1964F S01 17133 Arranged 'To Be Arranged'
Science, Technology and Society

STS 0700B. Science and Social Controversy.
In this course we examine the institution of science and its relations to the social context in which it is embedded. Scientific objectivity, scientific consensus, scientific authority, and the social and moral accountability of scientists will be considered in the context of discussing such controversies as: the AIDS epidemic, climate change, science and religion, the Manhattan Project, the Tuskegee Syphilis Experiment, genetic and pharmacological enhancement, the role of drug companies in science and medicine, psychiatric diagnosis and medication, robotics, and the implications of neuroscience for free will and moral responsibility. Enrollment limited to 20 first year students and sophomores. WRIT
Fall S01 16156 Th 4:00-6:30(04) (J. Poland)

STS 1000. Introduction to Science and Society: Theories and Controversies.
What is "science"? How do scientific ideas become knowledge? What is the nature of scientific objectivity, 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? 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 World War II. Enrollment limited to 30 sophomores, juniors, seniors; others may enrol with permission of instructor. WRIT
Fall S01 24554 TTh 10:30-11:50(09) (J. Richards)

STS 1700P. 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. Instructor permission required.
Fall S01 24550 T 4:00-6:30(16) (J. Poland)

STS 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. WRIT
Fall S01 16155 T 4:00-6:30(09) (J. Poland)

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: STS 1400. Open to junior and senior concentrators in Science and Society; instructor permission required.

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: STS 1400. Open to junior and senior concentrators in Science and Society; instructor permission required.

Slavic Languages

Czech

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.
Fall S01 15280 Arranged (M. Fidler)

CZCH 0200. 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. CZCH 0200 includes readings of annotated literary texts on the threshold of western and eastern Europe. Emphasis on oral communication. CZCH 0200 includes readings of annotated literary texts on the Web. Five meetings per week and use of audio/visual materials. Enrollment limited to 18.
Spr S01 25173 Arranged (M. Fidler)

CZCH 0320A. Czech Animation: Cross-cultural Dialogs.
Czech animation has a long tradition and international reputation. Jiří Trnka beat Disney at the post-war Cannes Film Festival. Karei Zeman is a pioneer in creating fantasy films with animation. Surrealist films by Jan Švankmajer continue to shock the audience. Younger animators such as Barta, Klimt, and Pospíšilová have been developing new modes of expression after the fall of socialism. This course explores a variety of Czech animated films from the 1960’s to the 21st century and its cross-cultural dialog, especially with the Japanese anime. Readings in English and films with English subtitles. DPLL FYS WRIT
Spr S01 25172 W 3:00-5:30(10) (M. Fidler)

CZCH 0410A. Boys and Girls: Relationships under Socialist Bohemia.
Using Milos Forman's film "Loves of a Blonde" and supporting materials around it, we will discuss human relationships and how they can be interpreted culturally and politically. Equally important is the acquisition of language. Tasks for the course are adjusted to two different language levels (intermediate and advanced). Enrollment limited to 18.
Fall S01 15281 Arranged (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 S01 25174 Arranged (M. Fidler)

Polish

PLSH 0100. 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.
Fall S01 16672 Th 1:00-1:50(14) "To Be Arranged"
Fall S01 16672 MWF 10:00-10:50(14) "To Be Arranged"
PLSH 0200. 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.
Spr PLSH0200 S01 25156 TTh 12:00-12:50(03) 'To Be Arranged'
Spr PLSH0200 S01 25156 MWF 10:00-10:50(03) 'To Be Arranged'

PLSH 0300. 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. Enrollment limited to 18.
Fall PLSH0300 S01 16674 TTh 12:00-12:50(12) 'To Be Arranged'
Fall PLSH0300 S01 16674 MWF 12:00-12:50(12) 'To Be Arranged'

PLSH 0400. Intermediate Polish.
This course is designed for students who have completed the Introductory Polish language sequence (PLSH 0150/0100, 0200 and 0300) or have otherwise acquired basic proficiency required for the second year sequence. In this course you will continue to develop and refine your speaking skills and will be able to carry on conversation on many topics from your daily life. You will continue developing reading and writing skills by reading increasingly more elaborate authentic texts and writing essays, and your learning skills will be cultivated by in-class interactions and listening to authentic Polish audio and video recordings.
Spr PLSH0400 S01 25157 TTh 1:00-1:50(04) 'To Be Arranged'
Spr PLSH0400 S01 25157 MWF 11:00-11:50(04) 'To Be Arranged'

PLSH 0500. Advanced Polish.
This course is designed for students who have completed the introductory and intermediate Polish language course sequence – PLSH 0100, 0200, 0300, and 0400, or have otherwise acquired basic proficiency required for the third year sequence.
In this course the students will further develop skills in speaking, reading, writing and understanding Polish. They will continue developing speaking, reading, and writing skills by reading and discussing increasingly more elaborate authentic texts and writing essays, and their listening skills will be cultivated by in-class interactions and listening to authentic Polish audio and video recordings. Emphasis in this course will be on mastering oral expression and vocabulary building, as well as comprehension of fiction and non-fiction texts of a moderate level of difficulty. The course will be conducted almost exclusively in Polish.
Fall PLSH0500 S01 16676 MWF 1:00-1:50(06) 'To Be Arranged'

PLSH 0600. Advanced Polish.
In this course students will further develop their skills in speaking, reading, writing and understanding Polish. They will continue developing reading and writing skills by reading increasingly more elaborate authentic texts, writing essays, and learning about Polish stylistics, syntax, and grammar at the advanced level. Their listening skills will be cultivated by in-class interactions and listening to authentic Polish audio and video recordings. Emphasis in this course will be on mastering oral expression and vocabulary building, as well as comprehension of fiction and non-fiction texts of a moderate level of difficulty. The course will be conducted almost exclusively in Polish.
Spr PLSH0600 S01 25159 MWF 1:00-1:50(06) 'To Be Arranged'

PLSH 1150. Polish for Reading Knowledge.
This course is designed for advanced undergraduates (or graduate students), who wish to develop reading competence in Polish with the aid of a good dictionary. Using texts from various disciplines in the social sciences and humanities, as well as journalistic and technical writings, students will learn the fundamentals of grammar and syntax, and how to decipher the meaning of a text, proceeding from very basic to more and more complex readings. Students will acquire a basic reading vocabulary and understanding of Polish grammar through analytical discussion, grammar exercises, and extensive reading of selected texts in the field of individual students.
Fall PLSH1150 S01 16673 Arranged 'To Be Arranged'
Spr PLSH1150 S01 25160 Arranged 'To Be Arranged'

Russian

RUSS 0100. 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 15854 MWF 10:00-10:50(14) 'To Be Arranged'
Fall RUSS0100 S01 15854 TTh 12:00-12:50(14) 'To Be Arranged'
Fall RUSS0100 S02 15855 MWF 11:00-11:50(16) 'To Be Arranged'
Fall RUSS0100 S02 15855 TTh 11:00-11:50(16) 'To Be Arranged'
Fall RUSS0100 S03 15856 MWF 12:00-12:50(12) (L. deBenedette)
Fall RUSS0100 S03 15856 TTh 12:00-12:50(12) (L. deBenedette)

RUSS 0110. Intensive Russian.
Intensively-paced introduction to Russian language and culture; 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 25129 MWF 10:00-10:50(03) 'To Be Arranged'
Spr RUSS0110 S01 25129 TTh 9:00-10:20(03) 'To Be Arranged'

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, and web materials. Prerequisite: RUSS 0100 or RUSS 0250. Enrollment limited to 18.
Spr RUSS0200 S01 25131 TTh 12:00-12:50(04) 'To Be Arranged'
Spr RUSS0200 S01 25131 MWF 11:00-11:50(04) 'To Be Arranged'

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 0110 or RUSS 0200 or RUSS 0250 or placement by exam. Enrollment limited to 18.
Fall RUSS0300 S01 15860 MWF 10:00-10:50(14) 'To Be Arranged'
Fall RUSS0300 S01 15860 TTh 12:00-12:50(14) 'To Be Arranged'
Fall RUSS0300 S02 15862 MWF 12:00-12:50(12) 'To Be Arranged'
Fall RUSS0300 S02 15862 TTh 12:00-12:50(12) 'To Be Arranged'

RUSS 0320C. Demons and Angels in Russian Literature.
The literary images of fallen angels, as well as various poetic demonologies in Russian literature extend from the medieval apocrypha, up to famous works of the twentieth-century literature, like, for example, Bulgakov's Master and Margarita or Dostoevsky's Demons. Although, the Russian literary angels are in many respects related to their Western counterparts, the apocalyptic character of Russian spiritual culture makes them in many respects unique. Examining these images, the course addresses the important questions concerning the human condition in general. Angels as one critic said, "represent something that was ours and that we have the potential to become again"; their essence is otherness. Consequently, their literary representations explore the possibilities of human existence as well as its central paradigms like, love, rebirth, mortality, or 'fallenness.' The course will analyze the images of angels and fallen angels (devils) in the works of the nineteenth and the twentieth-century Russian prose, visual art, and film - from romanticism to 'postmodernism' - in the context of the world literature and culture. Authors to be studied: Byron, Lermontov, Balzac, Dostoevskii, Solzub, Bulgakov, Nabokov, Erofeev. We will also discuss films by Tarkovsky and Wenders, Russian icons, and paintings by Vrubel. In English. Enrollment limited to 19 first year students. DPLL FYS WRT
Fall RUSS0320C S01 15283 W 3:00-5:30(17) (M. Oklot)
RUSS 0400. Intermediate 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 25135 TTh 12:00-12:50(03) 'To Be Arranged'
Spr RUSS0400 S01 25135 MWF 10:00-10:50(03) 'To Be Arranged'

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 15863 MWF 11:00-11:50(16) (L. deBenedette)
Fall RUSS0500 S01 15863 TTh 11:00-11:50(16) (L. deBenedette)
Fall RUSS0500 S02 16675 MWF 1:00-1:50(06) 'To Be Arranged'

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 25136 MWF 1:00-1:50(08) 'To Be Arranged'
Spr RUSS0600 S01 25136 TTh 12:00-12:50(08) 'To Be Arranged'

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 from the instructor. Enrollment limited to 18.
Fall RUSS1110 S01 15864 MWF 12:00-12:50(12) (L. deBenedette)

RUSS 1120. Special Topics in Russian Studies II: Advanced Reading and Conversation.
A continuation of RUSS 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 from the instructor. Enrollment limited to 18.
Spr RUSS1120 S01 25139 MWF 12:00-12:50(05) 'To Be Arranged'

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 concentrations and graduate students expected to cover most of the readings in Russian. Familiarity with Russian literary history is not required.
Spr RUSS1200 S01 25126 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 background 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.
Spr RUSS1250 S01 24196 Th 4:00-6:30(17) (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 Dostoevsky. Lectures and discussion. No knowledge of Russian required. Discussion sections to be arranged. WRIT Fall RUSS1290 S01 15286 TTh 10:30-11:50(13) (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, Sologub, Blok, Mayakovskiy, Babel, Olesha, Zamiatin, Bulgakov, and Solzhenitsyn. Lectures and discussion. No knowledge of Russian required. WRIT Spr RUSS1300 S01 24197 TTh 1:00-2:20(08) (V. Golstein)

RUSS 1440. Imagining Moscow: Utopia and Urban Spaces in 20th-Century Russian Culture.
The course explores the role of Moscow in the Russian collective imagery throughout the 20th century. We will study how different utopian visions of the city in art, literature, film, and architecture affected the radical transformations of its urban landscape from the October Revolution to the present. We will start with the 1920s and 1930s, when the image of a new Moscow became closely associated with the creation of new socialist ways of life, and conclude with the neoliberal facelift of the city in the post-Soviet period, retraicing a history of 20th-century Russian culture through its urban imagination.
Fall RUSS1440 S01 16948 MWF 1:00-1:50(06) (F. Fenhg)

RUSS 1720. Decadent Identities.
The course focuses on Decadent literature and culture and their responses to the loss of a unified human identity and their challenge to fundamental presuppositions about sexuality, social norms, and ethics around 1900. In our analyses of works of Russian and European literature and art, we will explore various meanings of the idea of "the decadent", and look at how these works put into play a range of theories of degeneration, evolutionism, the limits of the human, medical diagnostics, mystical ideologies, or criminal anthropology in their search for new models of identity and the world. DPLL Spr RUSS1720 S01 25152 TTh 2:30-3:50(11) (M. Oklot)

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 RUSS1820 S01 15297 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. DPLL WRIT Fall RUSS1840 S01 15288 TTh 2:30-3:50(03) (M. Oklot)

RUSS 1880. Russian Postmodernism and Cold War Narratives.
The course explores dystopian imagination, post-apocalyptic narratives, and the idea of the end of history in Russian postmodernist fiction. The course focuses on Decadent literature and culture and their responses to the loss of a unified human identity and their challenge to fundamental presuppositions about sexuality, social norms, and ethics around 1900. In our analyses of works of Russian and European literature and art, we will explore various meanings of the idea of "the decadent", and look at how these works put into play a range of theories of degeneration, evolutionism, the limits of the human, medical diagnostics, mystical ideologies, or criminal anthropology in their search for new models of identity and the world. DPLL Spr RUSS1720 S01 25152 TTh 2:30-3:50(11) (M. Oklot)
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. DPLL WRIT

Fall RUSS1917 S01 15284 Th 4:00-6:30(04) (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.

RUSS 2410. Movements and Genres in Russian Literary Culture.
Seminar. Critical reading of selected texts from the Baroque period through the first half of the 19th century. Analysis is based on a study of the infrastructure of each work and the external influences of the period. Conducted mainly in Russian, with a focus on Russian critical terminology and approaches.

Add a course without fee

Fall RUSS2410 S01 15723 W 3:00-5:30(17) (A. Levitsky)

RUSS 2610C. Russian Romanticism.
This course will examine the works of Zhukovsky, Batiushkov, Pushkin, Lermontov, Tютчеv, Bestuzhev-Marlinsky, Odoevsky, and Gogol in the context of Romanticist literary culture. Students will also read works by other European authors associated with Romanticism to elucidate the extent of the adherence of Russian writers to Romanticist aesthetics and philosophy.

Add a course without fee

Spr RUSS2610C S01 25153 M 3:00-5:30(13) (S. Evdokimova)

RUSS 2710C. In Memoriam in Russian Literature.
A study of the philosophical vein in Russian poetry about the meaning of the poetic and cultural heritage of the past, as well as reactions of the rising voices in Russian poetry in succeeding generations to the individual deaths of their immediate predecessors.

Add a course without fee

Spr RUSS2710C S01 25128 W 3:00-5:30(10) (A. Levitsky)

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.

Add a course without fee

Fall RUSS2970 S01 15183 Arranged "To Be Arranged"
Spr RUSS2970 S01 24116 Arranged "To Be Arranged"

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.

Add a course without fee

Fall RUSS2990 S01 15184 Arranged "To Be Arranged"
Spr RUSS2990 S01 24117 Arranged "To Be Arranged"

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.

Add a course without fee

Fall RUSS2990 S01 15184 Arranged "To Be Arranged"
Spr RUSS2990 S01 24117 Arranged "To Be Arranged"

Slavic

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/ Russian). Close work with faculty on project is expected. Prerequisites: minimum RUSS0600/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. Readings in Old Church Slavonic texts.

Add a course without fee

Fall SLAV2210 S01 15279 F 3:00-5:30(11) (M. Fidler)

SLAV 2450. Exchange Scholar Program.
Fall SLAV2450 S01 15186 Arranged "To Be Arranged"

SLAV 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.

Add a course without fee

Fall SLAV2970 S01 15187 Arranged "To Be Arranged"
Spr SLAV2970 S01 24119 Arranged "To Be Arranged"

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.

Add a course without fee

Fall SLAV2990 S01 15188 Arranged "To Be Arranged"
Spr SLAV2990 S01 24120 Arranged "To Be Arranged"

SLAV XLIST. Courses of Interest to Concentrators in Slavic Languages.
Sociology

SOC 0010A. Social Problems.
Revolution and Social Movements. Urbanization and Globalization. War and Genocide. These are all examples of social change, and sociology, the discipline for which this course serves as introduction, seeks to understand, and explain, them all and other transformations too. We focus in particular on how technology and power relations help us explain variations in social change, and how culture shapes our recognition and evaluation of those transformations. Although analyzing the USA today is our common ground, our method is both comparative (other societies) and historical (focusing especially on the 20th and 21st centuries).

Fall SOC0010A S01 15583 MW 8:30-9:50(01) (A. Scharnk)
Spr SOC0010A S01 25353 TTh 2:30-3:50(11) (M. Kennedy)

SOC 0020. Perspectives on Social Interaction: An Introduction to Social Psychology.
An introduction to the discipline of sociology examining the individual in social situations. Explores the social development of the person, the development of interpersonal relationships, and the problems of integrating the individual and social system. For each area, the personal and situational factors that bear upon the issue are investigated. The objective is to deepen understanding of the behavior of people in a social context.

WRIT
Fall SOC0020 S01 16445 MWF 9:00-9:50(01) (G. Elliott)

Emphasis on understanding the interrelations among economic, political, and cultural aspects of change in developing countries. The experience of currently developing nations is contrasted to that of nations which industrialized in the 19th century. Compares the different development strategies which have been adopted by currently developing nations and their consequences for social change.

Spr SOC0150 S01 25351 MWF 12:00-12:50(05) (P. Henry)

SOC 0310. Theory and Practice of Engaged Scholarship (ESP Seminar).
Efforts are underway across university and college campuses -- in the United States and globally -- to increase opportunities for engaged learning and research. What is engaged scholarship and how does it challenge (and/or complement) more traditional concepts of scholarship and disciplinary knowledge? What are the ethical, practical, and other challenges associated with community-engaged scholarship? The course will use case studies, field work, team projects, and guest speakers from diverse disciplines and sectors to investigate these and other questions. Enrollment limited to Engaged Scholars Program participants. Limited to 20 students per section.

Fall SOC0310 S01 15591 T 4:00-6:30(09) (A. Hance)

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, Emile 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
Fall SOC1010 S01 15590 TTh 9:00-10:20(02) (P. Henry)

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.

Spr SOC1020 S01 25379 MW 10:00-10:50(03) (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 16611 TTh 6:40-8:00PM(15) "To Be Arranged"

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 15582 TTh 10:30-11:50(13) (M. White)
Spr SOC1100 S01 25354 TTh 10:30-11:50(09) (J. Owens)

SOC 1114. Law and Society.
A broad exploration of contemporary social-science scholarship on law and legal institutions, covering competing theoretical perspectives and drawing examples from diverse empirical settings. Lectures and discussions survey different ways in which social scientists study legal life, seeking contrasts and commonalities across the various perspectives. Coverage includes: Social-psychological models of rule-following and rule-breaking; social-structural linkages between law and the economy, stratification, and politics; and the dynamic relationship between law and social change -- including the role of lawyers, judges and juries in giving law "independent causal significance." Strongly recommended: previous coursework in the social sciences.

Spr SOC1114 S01 25371 MW 2:00-2:50(07) (M. Suchman)

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.

Spr SOC1120 S01 25380 MW 11:00-11:50(04) (C. Spearin)

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 15584 MW 10:00-10:50(14) (C. Spearin)

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 15587 MW 12:00-12:50(12) (J. Itzigsohn)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 of organizations from an economic perspective are typically concerned with the performance of the organization relative to its competitors. Studies of organizations from a macro-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  15588  TTh  2:30-3:50(03)  (M. Suchman)

Macro-Organizational Theory focuses on the organization and its social/economic environment. This class will explore various definitions of the organization's environment, and the many types of macro-level organizational structures in which sets of organizations interact, function, compete, and cooperate. Important questions to be asked include the following:
- What is an organizational environment and how do organizations "deal" with what is outside of their boundaries?
- How are the boundaries of organizations defined/recognized/function?
- How do environments influence organizational strategy and performance?
- What are the major theories for assessing macro-level organizational phenomena?
Spring SOC1315  S01  25357  TTh  1:00-2:20(08)  (D. Hirschman)

SOC 1430. 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.
Spring SOC1430  S01  25368  MWF  9:00-9:50(02)  (G. Elliott)

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
Fall SOC1620  S01  15589  TTh  1:00-2:20(10)  (P. Heller)

SOC 1870E. Alternatives to Violence.
We examine nonviolence as a method for resolving serious social conflict. We consider psychological and sociological approaches to understanding why people choose violence, as a precursor to studying theories of nonviolence. We investigate practitioners of nonviolence throughout history and analyze nonviolence as a response to such issues as the death penalty, war, and terrorism. WRIT
Fall SOC1870E  S01  16610  M  3:00-3:50(05)  (G. Elliott)

SOC 1950. Senior Seminar.
Advanced research seminar for sociology concentrators. Students take each semester in senior year to 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. Cumulinaes 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
Fall SOC1950  S01  16608  MWF  11:00-11:50(16)  (C. Spearin)

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  16825  T  1:00-4:00  (M. White)

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
Spring SOC2020  S01  25359  T  1:00-4:00  (D. Lindstrom)

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  16826  Th  9:00-12:00  (D. Hirschman)

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.
Spring SOC2050  S01  25360  Th  1:00-4:00  (P. Heller)

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  16838  W  9:00-12:00  (S. Short)

SOC 2090. Culture and Social Structure.
An analysis of the interrelations of religious ideas, value patterns, and various forms of knowledge on the one hand, and of the societal structures and changes in organizations and roles on the other hand. Offered in alternate years.
Spring SOC2090  S01  25362  M  9:00-12:00  (M. Kennedy)
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  25372  W  1:00-4:00  (J. Pacewicz)

SOC 2230. Techniques of Demographic Analysis.
Procedures and techniques for the collection, evaluation, and analysis of demographic data; measures of population composition, fertility, morality, and migration; construction of life tables, population and projections, population dynamics; responsible use of demographic methodology. Mandatory S/NC.
Spr SOC2230  S01  25363  M  1:00-4:00  (Z. Qian)

SOC 2385. Environmental Sociology.
As contestation over environmental concerns proliferates, it draws increasing attention from sociologists. But sociological research on environmental issues raises major challenges. Social-environmental relationships raise theoretical and methodological questions: How do we know an “environmental” issue when we see one? How can we effectively examine the relationships between environmental processes and social processes and structures?
Fall SOC2385  S01  16833  M  9:00-12:00  (S. Frickel)

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  16827  M  1:00-4:00  (A. Schrank)

SOC 2450. Exchange Scholar Program.
Fall SOC2450  S01  15141  Arranged  "To Be Arranged"
Spr SOC2450  S01  24121  Arranged  "To Be Arranged"

SOC 2460. Sociology Paper Writing Seminar.
This is a special seminar for graduate students in Sociology on the art of writing research papers for publication. The goals of the course are to: 1) learn the process of writing by drafting or redrafting a complete research paper, one section at a time 2) participate in the process of critical peer review 3) become knowledgeable about the process of submission/publication in peer-reviewed journals in Sociology and related social science fields 4) become more familiar with the often hidden processes of journal review, publication ethics, and interpreting/responding to editorial decisions
Fall SOC2460  S01  16836  F  1:00-4:00  (M. Suchman)

SOC 2500. Teaching Practicum in Sociology.
This course is designed for sociology graduate students whose funding has prohibited a teaching assistantship but who need to complete the departmental teaching requirement. The instructor for this course will default as the department chair but it is the graduate student's responsibility to identify an instructor to work alongside. This partnership must be approved by the director of graduate study.
Fall SOC2500  S01  16908  Arranged  (P. Heller)

SOC 2510. Teaching Practicum in Sociology.
This course is designed for sociology graduate students whose funding has prohibited a teaching assistantship but who need to complete the departmental teaching requirement. The instructor for this course will default as the department chair but it is the graduate student's responsibility to identify an instructor to work alongside. This partnership must be approved by the director of graduate study.
Spr SOC2510  S01  25382  Arranged  (P. Heller)

SOC 2960F. Global and Transnational Sociology.
The new phase of capitalism, commonly called "globalization," has radically transformed the postwar order. In this seminar, we will review several debates regarding current political-economic transformations, including: What caused the shift to neo-liberalism? What external economic pressures do states experience? Can domestic factors mediate such pressures? How do developing countries react to the new international environment? And what role does the United States and international organizations play in the new order?
Spr SOC2960F  S01  25366  Th  9:00-12:00  (N. Chorev)

SOC 2960M. Sociology of Organizations Graduate Seminar.
The sociology of organizations offers a burgeoning and vibrant literature, with relevance not only for self-identified organizational sociologists, but also for scholars in fields as diverse as politics, development, industrial relations, finance, education, health care, and the arts. This seminar offers an intensive exploration of the "state of play" in contemporary macro-organizational theory. Shared and individual readings, coupled with weekly discussions and email dialogues, allow students to refine and extend their thinking on a series of important and controversial topics in the recent literature. Although this course has no formal prerequisites, the syllabus is aimed primarily at graduate students who enjoy some prior familiarity with organizational theory, whether in sociology or a kindred discipline. Enrollment limited to 15.
Spr SOC2960M  S01  25385  T  1:00-4:00  (M. Suchman)

SOC 2960Z. Social Theory Now.
Most courses in social theory cover either “classical theory” (stopping around WWII) or “contemporary theory” (stopping in the early 1990s). This course offers a broad overview of recent trends and new directions in social theory. It focuses on works published since 2000 by sociologists and by theorists that have been influential in sociology. The course covers conversations in “metatheory” around mechanisms and fields, science studies approaches to the body and nature, diverging interpretations of the place of culture, debates around identity, and critical perspectives including feminist theory and postcolonial theory.
Spr SOC2960Z  S01  25381  F  9:00-12:00  (D. Hirschman)

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.
Fall SOC2970  S01  15190  Arranged  "To Be Arranged"
Spr SOC2970  S01  24122  Arranged  "To Be Arranged"

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 2982. Directed Research Practicum - MSAR Students Only.
The Directed Research Practicum is a one semester course taken in conjunction with an on- or off-campus research internship. The course consists of a directed reading of methodological texts and research articles selected by the student and the faculty director that are directly relevant to the methodological issues/challenges encountered in the internship. The student and faculty director will meet weekly to review the readings. The practicum may include written assignments, literature reviews, and data analysis exercises. Faculty directors need not be involved with the actual internship work, unless the student is working on the faculty member’s research project.
Fall SOC2982  S01  15600  Arranged (C. Spearin)
Spr SOC2982  S01  25383  Arranged (C. Spearin)

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.
Fall SOC2990  S01  15191  Arranged  "To Be Arranged"
Spr SOC2990  S01  24123  Arranged  "To Be Arranged"
SOC XLIST: Courses of Interest to Students Concentrating in Sociology.

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. There is a mandatory tech requirement and some evening hours are required. Please go to the TAPS website for specifics on admission and the technical requirement (http://brown.edu/go/TAPSO030). Enrollment limited to 18 first year students. Instructor permission required. No permission will be given during pre-registration.

Fall TAPS0030 S01 16723 Arranged (C. Crawford)
Fall TAPS0030 S02 16724 Arranged (S. d'Angelo)
Spr TAPS0030 S01 25261 Arranged (C. Crawford)
Spr TAPS0030 S02 25264 Arranged (S. d'Angelo)

TAPS 0100. Playwriting I.
A workshop for students who have little or no previous experience in writing plays. Students will be introduced to a variety of technical and imaginative considerations through exercises, readings and discussions. Course is not open to those who have taken Advanced Playwriting (TAPS 1500, formerly LITR 1010C and TSDA 0100). Enrollment is limited to 14 undergraduates per semester. A limited number of spaces are reserved for incoming and transfer students. Instructor permission required. S/NC.

WRIT
Fall TAPS0100 S01 16734 Arranged 'To Be Arranged'
Fall TAPS0100 S02 16736 Arranged (E. Terry-Morgan)
Spr TAPS0100 S01 25267 Arranged 'To Be Arranged'

TAPS 0200. Playwriting II.
Emphasis is placed on dramatic conventions, such as monologues, dialogue, mise-en-scene and time. Writing includes frequent exercises in various theatrical approaches. This course is limited to undergraduate students. Instructor permission required. Prerequisite: TAPS 0100 (formerly LITR 0110C and TSDA 0100). Enrollment is limited to 14 undergraduates per semester. Instructor permission required. S/NC.

WRIT
Fall TAPS0200 S01 16720 Arranged 'To Be Arranged'

TAPS 0220. Persuasive Communication.
Provides an introduction to public speaking, and helps students develop confidence in public speaking through the presentation of persuasive speeches. Primarily for seniors. Limited to 18. Instructor's permission required. No permission will be given during pre-registration; interested students should sign up well in advance on the TAPS 0220 waitlist (application form is at http://brown.edu/go/TAPS0220) and attend the first day of class. Attendance is mandatory. The application/waitlist process does not apply to students registering for the Summer term through the School of Professional Studies.

Fall TAPS0220 S01 16702 Arranged (B. Tannenbaum)
Fall TAPS0220 S02 16704 Arranged (B. Tannenbaum)
Fall TAPS0220 S03 16705 Arranged 'To Be Arranged'
Fall TAPS0220 S04 16706 Arranged 'To Be Arranged'
Fall TAPS0220 S05 16707 Arranged 'To Be Arranged'
Spr TAPS0220 S01 25251 Arranged (B. Tannenbaum)
Spr TAPS0220 S02 25252 Arranged (B. Tannenbaum)
Spr TAPS0220 S03 25253 Arranged (B. Tannenbaum)
Spr TAPS0220 S04 25254 Arranged (B. Tannenbaum)
Spr TAPS0220 S05 25255 Arranged (B. Tannenbaum)

TAPS 0230. Acting.
Focus on elements of dramatic analysis and interpretation as applied to the art of acting, and, by extension, directing. Monologues, scene study, and improvisation are bases for comment on individual problems. Reading of dramatic texts and theory. Substantial scene rehearsal commitment necessary. Attendance mandatory. Not open to first-year students. Enrollment limited to 20. Instructor permission required. No permission will be given during pre-registration. S/NC.

Fall TAPS0230 S01 16693 Arranged (K. Moore)
Fall TAPS0230 S02 16695 Arranged (S. d'Angelo)
Spr TAPS0230 S01 25266 Arranged (S. d'Angelo)

TAPS 0250. Introduction to Technical Theatre and Production.
This course is an introduction to the basic principles of stagecraft, lighting and sound technology and the different elements of theatrical design. Instructor permission required. Enrollment limited to 15.

Fall TAPS0250 S01 16701 Arranged (A. Haynes)
Spr TAPS0250 S02 25250 Arranged (A. Haynes)

TAPS 0260. Stage Lighting.
This course is an introduction to stage lighting. Enrollment limited to 20.

Fall TAPS0260 S01 16727 Arranged (T. Hett)

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 16690 Arranged (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 16689 Arranged (M. Bach-Coulibaly)

This interdisciplinary, reading/writing-intensive course examines the notion of blackness through theorizations of performance. It pursues the following questions: What is black authenticity? What are the rubrics with which 'authentic' blackness is measured? How is black performance political? Discussions and written work will interrogate the slipperiness of, desire for, and policing of blackness in order to trouble conceptions of race as a biological essence.

Fall TAPS0350 S01 17104 Arranged (J. Johnson)

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. The goal of this class is to give the student the fundamental techniques of voice and speech in relation to the body. Prerequisite: TAPS 0230. Enrollment limited to 16. Instructor permission required. S/NC.

Prerequisite does not apply to students registering for the Summer term through the Office of Continuing Education.

Spr TAPS0360A S01 25248 Arranged (T. Jones)

TAPS 1000. Intermediate Dance.
This is an intermediate-level modern dance class that extends and expands movement coursework for students who have taken TAPS 0310 or equivalent dance study. It is intended to challenge students' memory, capacity for rhythmic complexity, and improvisational competence, as well as foster a professional work ethic that can withstand abundant physical, emotional and organizational challenges.

Spr TAPS1000 S01 25244 Arranged (S. Skybetter)
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 16699 Arranged (B. Reo)

This course explores performance practices that predate the European Renaissance across disparate parts of the globe. Considered will be Paleolithic rock art and other evidence of ritual practices in Europe, Africa, and the Americas; ritual dramas of Egypt, Greece, and the Roman Empire; Sub-Saharan African traditions and theatre/dance forms in ancient India, medieval Japan and the indigenous Americas. In short, we will explore a wealth of differing ancestral theatrical modes and methods that continue to leave their mark in contemporary diasporic expressions.
Fall TAPS1230 S01 15946 Arranged (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 25268 Arranged (L. Hilton)

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 25269 Arranged (R. Schneider)

TAPS 1280F. Introduction to Set Design.
Students will explore set/scenic design for live performance in a studio format. The main objective is to introduce the language, tools, and technical skills involved in the discipline of scenic design and to lay the foundation for further study while empowering students to actively engage as set designers in productions on campus after taking the course. A special feature of the course are guest visits which will give students the opportunity to engage in dialogue with a professional director and playwright in order to situate set design as a conceptual artistic discipline which utilizes technical tools. Enrollment limited to 10.
Spr TAPS1280F S01 25249 Arranged (R. Surprenant)

TAPS 1281M. Introduction to Costume Construction.
An introduction to the study and practice of core costume construction skills. Topics include basic machine, hand sewing and patternng techniques.
Fall TAPS1281MS01 16684 Arranged (R. Cesario)

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. Open to Any Brown/RISD graduate/undergraduate student that has taken TAPS 0230/Acting or the equivalent. Students should be aware that this is a hybrid Research and Performance class which may be counted as either a Performance Studies/Theatre Arts course for credit. Instructor Permission is Required. Interested students should attend the first class meeting in order to apply. DPLL Spr TAPS1281OS01 25673 Arranged (K. Moore)

TAPS 1281W. Artists and Scientists as Partners.
This course focuses on current research on and practices in arts and healing, with an emphasis on dance and music for persons with Parkinson's Disease (PD) and Autism (ASD). Includes guest lecturers, readings, field trips, and site placements. Admission to class will be through application in order to balance the course between self-identified artists and scientists and those primarily interested in PD and those primarily interested in ASD. Enrollment limited to 30. DPLL Fall TAPS1281WS01 16773 Arranged (J. Strandberg) Fall TAPS1281WS02 16775 Arranged (R. Balaban)

TAPS 1281Z. Artists and Scientists as Partners: Theory to Practice.
This course focuses on the application of current research in neuroscience, education, narrative medicine, and best practices in the arts for persons with neurological disorders. Through site placements, students provide arts experiences (primarily dance and music) for persons with Parkinson's Disease (PD) and Autism Spectrum Disorders (ASD). The course also includes guest lecturers, readings, curriculum development, analyzing and developing research methodology, ethnographic research, and planning of and participation in a convening of artists, scientists and educators in an intergenerational exploration. Completion of TAPS 1281W highly recommended, but course may be taken with no prior experience in science, dance or music.
Spr TAPS1281Z S01 25270 Arranged (J. Strandberg)

TAPS 1285. Film Acting.
This advanced acting class is designed to teach the actor how to apply the screenplay as a blueprint for the finished film and to familiarize the actor with the actual process of working on a film set. Utilizing an extensive library of screenplays, the class will learn film scene analysis and preparation, pro-active choice, and heightened connection. They will develop and hone the skill to remain present and vital through multiple takes of the scene, always keeping emphasis on process rather than presentation.
Spr TAPS1285 S01 25256 Arranged 'To Be Arranged'

TAPS 1310. Advanced Modern Dance.
This course is designed for students with several years of dance experience in any genre. The purpose of this class is to endow students with technical mastery of current contemporary movement vocabularies, with emphasis on Release Technique and Bartenieff Fundamentals. Enrollment limited to 40. S/NC. Fall TAPS1310 S01 16691 Arranged (S. Skybetter)

TAPS 1340. Dance Styles.
This course encourages the participants to find their own creative voice through movement. This will happen simultaneously whilst improving their technique. Class will be based around movement exploration exercises, games, physical challenges, different improvisational techniques and set movement material and phrases. This class is suitable for dancers of all levels; actors; and any students interested in exploring dance and movement. In order to enroll for this course a curiosity of movement is needed. The ultimate aim of this course is to gain more confident moving and exploring one’s physical presence and to make intelligent, creative movement choices.
Spr TAPS1340 S01 25246 Arranged (J. Strandberg)
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 permission required. S/NC.
Fall TAPS1350 S01 16692 Arranged (J. Strandberg)

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.
Fall TAPS1360 S01 25247 Arranged (J. Strandberg)

TAPS 1370. New Works/World Traditions.
As an Engaged Scholarship course, New Works develops new dance theater pieces that are rooted in research in Mindfulness, Somatic Studies, Mande Dance, Contact Improvisation, Butoh and Contemporary Vernacular dance forms. Guest artists from Japan, China, West Africa, the USA, and local community partners co-create new theatrical pieces for the concert stage. May be repeated for credit. S/NC.
Fall TAPS1370 S01 16700 Arranged (M. Bach-Coulibaly)
Spr TAPS1370 S01 25260 Arranged (M. Bach-Coulibaly)

TAPS 1390. 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.
Fall TAPS1390 S01 25245 Arranged (M. Bach-Coulibaly)

TAPS 1425. Queer Performance.
This seminar will examine the many meanings of queer performance. We will consider queerness as it is performed in a range of aesthetic genres—theater, music, dance, performance art, digital media—as well as in everyday vernacular contexts. We will explore how the interdisciplinary academic field of queer studies has turned to performance and performativity as key modes through which gender and sexuality are expressed. The class will place a particular emphasis on queer of color, trans*, and crip/queer approaches and cultural practices, addressing how queerness intersects with other axes of social difference, including race, class, and ability.
Fall TAPS1425 S01 17052 Arranged (L. Hilton)

TAPS 1510. Inventing Directing.
"Inventing Directing" is a course that deals with how a director gets thought into stage space via: different emphases communicated to actors; attention to the life of objects; exploration of the languages of stage space; accessing personal experience to deepen point of view; drawing upon film, the practical application of theory, and literature; vertical thinking; and spatializing time. The course will involve practical exercises and work on both scenes from plays and on material drawn from other sources.
Fall TAPS1510 S01 17047 Arranged (S. Golub)

TAPS 1520. Seminar in Theatre Arts.
Seminar designed 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 seniors.
Fall TAPS1520 S01 16782 Arranged (S. Skybetter)

TAPS 1970. Independent Reading and Research.
Intensive reading and research on selected topics arranged in terms of special needs and interests of the student. A written proposal must be submitted to the instructor and the chair of the theatre arts department before the project can be approved. 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.

Key texts in Performance Studies and Theatre Theory selected from works by ancient, modern, and contemporary philosophers, dramatists, performers, and theorists. Covers basic methodological trends crucial to thinking about mimesis and alterity, acting and actingants, identity formation and disidentification, decolonial theory and feminist theory in relationship to the study of performance, performativity, drama and theatricality. Enrollment limited to 20.
Fall TAPS2100 S01 16685 Arranged (R. Schneider)

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 repeated for credit. Undergraduates will be admitted with permission of the instructor. S/NC.
Fall TAPS2310 S01 16779 Arranged (C. Anderson)
Spr TAPS2310 S01 25272 Arranged (C. Anderson)

TAPS 2450. Exchange Scholar Program.
Fall TAPS2450 S01 15192 Arranged "To Be Arranged"

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 11217 Arranged (B. McEleny)

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 11218 Arranged (T. Jones)

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 11219 Arranged (S. Baryshnikov)

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 11220 Arranged (B. Mertes)

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 20th century playwrights. In addition to the works of Anton Chekhov, students may perform scenes from plays by Tennessee Williams, Arthur Miller, Clifford Odets, Wendy Wasserstein, Peter Parnell, Paula Vogel, Edward Albee and Harold Pinter.
Spr TAPS2550 S01 20159 Arranged (B. McEleny)
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 progression through Standard American Speech to rudimentary dialect work.
Spr TAPS2660 S01 20160 Arranged (T. Jones)

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 20161 Arranged "To Be Arranged"

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 20162 Arranged (B. Mertes)

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 11221 Arranged (B. McEleny)

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 11222 Arranged (T. Jones)

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 11223 Arranged (S. Baryshnikov)

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 11224 Arranged (B. Mertes)

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 20163 Arranged (B. McEleny)

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 20164 Arranged (T. Jones)

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 20165 Arranged (S. Baryshnikov)

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 assist and direct a professional production at Trinity Rep Company.
Spr TAPS2680 S01 20166 Arranged (B. Mertes)

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. 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 11225 Arranged (B. McEleny)

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 TAPS2710 S01 11226 Arranged (T. Jones)

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 11227 Arranged (S. Baryshnikov)

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 11228 Arranged (B. Mertes)
Fall TAPS2730 S02 16903 Arranged (K. Moore)

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 20167 Arranged (B. McEleny)

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 20168 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 20169 Arranged (B. Mertes)
TAPS 2970. 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.
Fall TAPS2970 S01 15193 Arranged "To Be Arranged"
Spr TAPS2970 S01 24124 Arranged "To Be Arranged"

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 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.
Fall TAPS2990 S01 15194 Arranged "To Be Arranged"
Spr TAPS2990 S01 24125 Arranged "To Be Arranged"

University Courses

UNIV 0701. Fascism: 1933-Present.
The resurgence of ethno-nationalist and populist movements has upended the liberal democratic consensus of the past half century and elicited comparisons to Weimar Germany. With the rise of a distinctly authoritarian politics in Europe and America, many have questioned whether we are witnessing a return of Fascism. As a political worldview believed to have been defeated at the end of WWII, Fascism nevertheless continues to represent the anxiety looming over the liberal political order. This class will examine the intellectual history of Fascism as a politics of identity, from interwar Europe to the present day and interrogate its meaning today.
Fall UNIV0701 S01 17040 TTh 9:00-10:20(02) (P. Nahme)

UNIV 1001. Israelis and Palestinians In Pursuit of Peace.
A comparison of the narratives that Israelis and Palestinians tell themselves and the world about their struggle over Israel/Palestine and the efforts by members of both groups to transcend their conflicting narratives and work for peace. Sources will include historical documents, memoirs, histories, works of fiction, and films. The class will spend a week in Israel/Palestine meeting with groups of Israelis and Palestinians seeking to overcome the narratives that divide them in order to make possible a peaceful resolution of the conflict. All sources will be in English translation.
Spr UNIV1001 S01 25164 MWF 11:00-11:50(04) (D. Jacobson)

In this course, we will study narrative accounts of 20th-century American incidents in which racism led to the persecution of members of minority groups by means of lynchings, miscarriages of justice, or the placement of people in internment camps: the unjustly conducted trial and lynching of the Jewish factory manager Leo Frank accused of murdering a woman in Georgia; the kidnapping and murder of African American adolescent Emmett Till in Alabama; and the internment of Japanese descendants during World War II out of fear that they would aid America’s enemy.
Fall UNIV1005 S01 16932 MWF 11:00-11:50(16) (D. Jacobson)

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. WRIT Spr UNIV1520 S01 24742 MWF 2:00-2:50(07) (O. Almeida)

UNIV 1700. Transformation of the Research University.
This seminar will focus on recent transformations of the academic, instructional and administrative character of the elite American research universities. Emphasis will be on selected pressure points (such as research funding, diversity, technology, market influence) that drive change and shape the future.
Spr UNIV1700 S01 25008 T 4:00-6:30(16) (W. Simmons)

Urban Studies

URBN 0210. The City: An Introduction to Urban Studies.
This introductory course to Urban Studies is taught in an entirely new format. Led by Prof. Neumann, it will include lectures by Urban Studies faculty who will present their views of the field. It offers an interdisciplinary approach to the history, physical design, spatial form, economy, government, cultures, and social life of cities worldwide. Which are the most urgent issues facing cities today? How will continued urban growth affect the environment? How can we learn from historic approaches to urban planning? Which are the most promising solutions to relieve urban inequality? What can be learned from ‘informal housing’ developments? DPLL WRIT Fall URBN0210 S01 15479 TTh 2:30-3:50(03) (S. Zipp)

An introduction to Urban Studies and to the city of Providence, this first year seminar explores from an interdisciplinary perspective how cities are broadly conceptualized and studied. Students then focus on urban dwelling, using Providence as a first-hand case study. We comprehensively examine urban life and change, attending to urban history, the diverse configurations of people and place, social and environmental issues, and urban sustainability. In a lively and varied approach to local learning, course activities include lectures, discussion, reading and writing assignments, films and other media, guest speakers, and excursions to local sites. Enrollment limited to 19 first year students.
FYS Fall URBN0230 S01 15473 TTh 10:30-11:50(13) (R. Carter)

URBN 1000. Fieldwork in the Urban Community.
Each student undertakes a fieldwork project in close collaboration with a government agency, a nonprofit association, or a planning firm, thereby simultaneously engaging with community and learning qualitative research methods skills. In weekly seminar meetings, the class examines a series of urban issues and discusses fieldwork methodology. Students also schedule regular appointments with the instructor. WRIT DPLL Spr URBN1000 S01 24212 TTh 9:00-10:20(01) (J. Pacewicz)

URBN 1250. The Political Foundations of the City.
This course examines the history of urban and social welfare policy in the United States and abroad. It reviews major theories accounting for the origins and subsequent development of welfare states, explains the "exceptional" nature of American public policy, and employs a combination of historical texts and case studies to analyze the connections between politics and the urban environment.
Fall URBN1250 S01 17062 TTh 9:00-10:20(02) (J. Pacewicz)
URBN 1260. Housing in America.
An examination of why housing matters to individuals, communities, and the nation. This course examines the unique qualities of housing and associated American cultural ideals and norms. The changing role of the government in housing is considered, along with other factors shaping the provision of housing, and the success and failure of housing programs. While housing is a necessity, for many in America housing choices are constrained as costs are unaffordable, discriminatory practices remain, and physical features do not align with needs. This course deliberates how well America meets the challenge of providing decent shelter for all residents.
Fall URBN1260 S01 17063 TTh 1:00-2:20(10) "To Be Arranged"

URBN 1870D. Downtown Development.
This seminar examines the development and revitalization of the urban core in the United States with a focus on urban planning. Providence is used as a laboratory to explore development from the perspective of the planner, the developer, and the city residents. Important concepts are illustrated through field trips, public meetings, and guest speakers. WRIT Fall URBN1870D S01 15205 Th 4:00-6:30(04) (R. Azar)

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. DPLL WRIT Spr URBN1870JS01 24168 M 3:00-5:30(15) (M. Orr)

URBN 1870M. Urban Regimes in the American Republic.
A probing of topical issues in both their theoretical antecedents and their contemporary manifestations. Examines the intellectual debates and the scholarly treatments surrounding issues of power in the city, urban redevelopment policy, urban poverty, urban educational policy, and race in the city. Enrollment limited to 20. WRIT DPLL Fall URBN1870M S01 15246 M 3:00-5:30(05) (M. Orr)

URBN 1870Q. Cities in Mind: Modern Urban Thought and Theory.
This seminar investigates the place of the city in the history of modern thought and cultural theory, drawing on selected currents in urban thought and theory from Europe and the United States over the last two centuries. Topics include questions of public and private space, citizenship, selfhood, difference and inequality, media and technology, planning, modernism and postmodernism. Enrollment limited to 20 juniors and seniors, preference for those concentrating in Urban Studies. WRIT Spr URBN1870QS01 24215 W 3:00-5:30(10) (S. Zipp)

URBN 1870S. The City, the River, and the Sea: Social and Environmental Change at the Water's Edge.
This course examines urban social and environmental change at the water's edge, focusing in particular on urban rivers, coastal areas, and deltas. Beginning with key frameworks for understanding the relationship between people and place, students explore the history and current concerns of urbanization, within the larger and increasingly urgent inquiry on human dwelling and water/waterways. The course is then organized around key topics and case studies from around the world, framed by historical and scientific data but also explored through ethnography, narrative non-fiction, and documentary work to understand how water, urban dwelling, and change are variously experienced, enacted, and presented. WRIT Spr URBN1870SS01 24214 TTh 10:30-11:50(09) (R. Carter)

This seminar explores how urban planners in the U.S. plan for and around various transportation networks. We will examine how these networks are designed and funded, which modes get priority over others, and ultimately how transportation shapes the built environment. Realworld examples of plans and projects from Providence and Rhode Island are used throughout the course. Important concepts are illustrated through field trips and guest speakers. WRIT Spr URBN1870TS01 24134 Th 4:00-6:30(17) (R. Azar)

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.

A program of intensive reading, research, and writing under the direction of a faculty member. Permission should be obtained from the Thesis Advisor in Urban Studies. Mandatory attendance at periodic meetings during the semester is required. Open to Senior Urban Studies concentrators pursuing Honors in Urban Studies. Instructor permission required.

A program of intensive reading, research, and writing under the direction of a faculty member. Permission should be obtained from the Thesis Advisor in Urban Studies. Mandatory attendance at periodic meetings during the semester is required. Open to Senior Urban Studies concentrators pursuing Honors in Urban Studies. Instructor permission required.

URBN XLIST. Courses of Interest to Concentrators in Urban Studies.

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. VISA 0100 is a prerequisite to any advanced studio course work at Brown or the Rhode Island School of Design.
Fall VISA0100 S01 17071 MW 1:00-2:50 (L. Correa-Carlo) Fall VISA0100 S02 17072 MW 10:00-11:50 (J. Stanley) Fall VISA0100 S03 17073 MW 1:00-2:50 (J. Stanley) Fall VISA0100 S04 17074 Th 5:00-6:50 (L. Monge) Fall VISA0100 S05 17075 F 9:00-12:50 (L. Monge) Fall VISA0100 S06 17076 Th 1:00-4:50 (A. Evans) Fall VISA0100 S07 17077 MW 4:00-5:50 (L. Correa-Carlo) Spr VISA0100 S01 25627 MW 1:00-2:50 (L. Correa-Carlo) Spr VISA0100 S02 25628 T 1:00-4:50 (L. Monge) Spr VISA0100 S03 25629 T 6:00-9:50PM (L. Monge) Spr VISA0100 S04 25630 Th 1:00-4:50 (A. Evans) Spr VISA0100 S05 25631 MW 10:00-11:50 (J. Stanley) Spr VISA0100 S06 25632 MW 1:00-2:50 (J. Stanley) Spr VISA0100 S07 25633 Th 10:00-11:50 (L. Tarentino)

VISA 0120. Foundation Media: Sound and Image.
This foundation studio course focuses on the production and theory of screen-based digital media artwork 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 VISA0120 S01 17092 TTh 10:00-11:50 (E. Osborn) Spr VISA0120 S01 25637 TTh 10:00-11:50 (E. Osborn)

VISA 0130. 3-D Foundation.
This is an extensive study in form and structure. It is designed to develop spatial understanding and the fundamentals of 3-dimensional design and construction. Students will explore the structural, compositional and conceptual implications of common materials, such as wood, metal, plaster and found objects. Projects are designed as a means for investigating a variety of sculptural processes. Students will learn safe usage of power and hand tools, casting techniques, wood and metal work. In addition, special emphasis will be placed on creativity, critical thinking and the ability to successfully articulate ideas visually.
Fall VISA0130 S01 17087 TTh 9:00-10:50 (P. Myoda) Spr VISA0130 S01 25635 MW 4:00-5:50 (L. Correa-Carlo)
VISA 0140. Photography Foundation.
This course is a wide ranging technical and conceptual introduction to photography. Through weekly projects, students will be exposed to 19th-21st century photo processes. Topics covered include cameras, lenses, software, darkroom overview, scanning, natural and artificial lighting, alternative processes as well as concepts such as selective focus, color temperature, composition. Short readings and in-class slide presentations on a diverse range of photographers will introduce students to the history of photography. This course will prepare students for upper level Photography classes at Brown and RISD.
Fall VISA0140 S01 17089 F 9:00-12:50 (R. Ross)
Spr VISA0140 S01 25636 T 9:00-12:50 (R. Ross)

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 and museums and pertinent exhibitions may be undertaken. The portfolio of the individual student will be the basis of evaluation. Great emphasis is put on classroom participation. The latter part of this course will introduce ideas of conceptual and political art into the drawing process. Pre-requisite: VISA 0100. (Overtides to take this course are available upon request after the first class.) This course is restricted to 20 students. 18 seats will be available during pre-registration. Students who are not admitted during pre-registration should attend the first meeting.
Spr VISA1110 S01 25642 TTh 9:00-11:50 (P. Myoda)

VISA 1210C. Investigating Collage
This course will be an artistic and intellectual investigation of 2 dimensional collage, which is the juxtaposition or arrangement of multiple images or parts of images to create fresh meanings and narratives. We will be working mostly with scissors, paper, painting, and glue, supplemented with slides and reading. Use of the computer to complete some assignments is optional. Prerequisite: VISA 0100 or VISA 0110.
Fall VISA1210C S01 17102 TTh 10:00-1:50 (L. Beeferman)

VISA 1210D. Lithography
Lithography is the most versatile printmaking process. Working on limestone and aluminum plates, students will learn to produce, process and print their work in black and white. Class participation is vital, as students will be aiding each other in this complicated process. This course requires considerable time outside of class. Prerequisite: VISA 0100 or VISA 0110.
Fall VISA1210D S01 17139 TTh 10:00-1:50 (L. Bostrom)

VISA 1240. Art of the Book
Will examine the book, structurally and conceptually, as artist's medium. Students will learn the materials, tools and techniques of making books, as they explore the expressive and narrative possibilities of the book form. Topics and projects may include digital imaging, combining text and image, traditional binding or digital publishing. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.
Fall VISA1240 S01 17094 MW 1:00-4:50 (To Be Arranged)
Spr VISA1240 S01 25643 MW 1:00-4:50 (E. Menia-Landry)

VISA 1310. Painting: Beginning to Intermediate
Painting for a variety of interests and aptitudes - basic instruction in media and painting procedure, emphasis on development of the image as a visual statement. Will build stretchers, cover basic color principles, and painting techniques. Images, related books, and articles are discussed. Individual criticism is given; participation in group discussions is required. Students not admitted during pre-registration should attend the first class.
Fall VISA1310 S01 17098 Th 9:00-11:50 (L. Tarentino)
Spr VISA1310 S01 25645 Th 1:00-4:50 (L. Tarentino)

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 0100 or 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 VISA1320 S01 17085 MW 1:00-3:50 (W. Edwards)

VISA 1410. Sculpture: Material Investigations
This studio course addresses basic sculptural methods, i.e., additive + subtractive modeling, casting, and assemblage, and common sculptural materials, i.e., wood, metal, plaster, and found objects. Demos + 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 who are not admitted during pre-registration or were unable to pre-register should attend the first meeting of the class.
Fall VISA1410 S01 17087 Th 12:00-3:50 (P. Myoda)

VISA 1420. Sculpture II: Conceptual Propositions
This studio course explores a number of contemporary sculptural theories and practices. Contemporary issues raised in critiques and readings. Completion of VISA 1410 is suggested, but not required. Demos and workshops on a number of tools and materials will be given as needed. Students may take this course more than once, as the problems can be customized for those with more experience. Extensive outside work expected. Please attend first day of class.
Spr VISA1420 S01 25646 Th 1:00-3:50 (P. Myoda)

VISA 1510. Black and White Photography
This course offers introduction to traditional black and white 35mm darkroom techniques, including processing film, silver gelatin printing and related techniques. While the class is primarily a studio course, it will be supplemented by weekly slide presentations and discussions of assigned readings. Slide presentations will focus on individual photographers in the history of the medium. Topics of discussion will include photographic genres, the photo essay, editing and sequencing a body of work, personal visions, social and political context, documentary versus art photography. Students may check out 35 mm film camera from the Dept.
Fall VISA1510 S01 17098 MW 1:00-3:50 (T. Ganz)
Spr VISA1510 S01 25649 MW 9:00-11:50 (T. Ganz)

VISA 1520. Digital Photography
Over 1.8 billion photographs are uploaded to the Internet each day. Since everyone's a 'photographer', what type are you? While we constantly produce images for ourselves and others in private and public, this course will ask students to critically rethink this tool. Image-making, from “capture” to “color-correction” and beyond will be consciously addressed, as we approach photography from the perspective of contemporary art practice and produce a final portfolio of prints. Class will be discussion, slideshow, studio and critique. Prior experience in photography preferred not required. A digital SLR type camera may be checked out from the Department.
Fall VISA1520 S01 17099 Th 9:00-11:50 (T. Ganz)
Spr VISA1520 S01 25650 Th 2:00-5:50 (R. Ross)
VISA 1710. Site and Sound.
This studio course provides an overview of contemporary sound art, facilitates the development of site-based sonic artwork, and encourages a critical approach to sound and audio practice. Work will be developed for and from specific sites with special emphasis placed on modes of listening and the physical characteristics of sound itself. Examples of site-specific sound work in a variety of formats including performance, installation, sculpture, literature, and radio are presented and analyzed.
Spr VISA1710  S01  25648  TTh  1:00-4:50  (E. Osborn)

VISA 1800A. Accessorizing Painting: The Exalted Surface.
This studio course will examine the crossover between decorative arts and painting. Drawing upon sources such as fashion, textiles, adornments, jewelry, furniture, hair and architecture we will study how design aesthetics demonstrate class, position, lineage or a particular period in the history of painting and embellishment. Students will be encouraged to experiment with a wide variety of media and work on projects based on their selected researched subject areas. Enrollment limited to 14 Visual Art concentrators. Prerequisite: VISA 1310.
Spr  VISA1800A  S01  25644  MW  1:00-4:50  (W. Edwards)

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. Must be accepted into Honors Program. WRIT
Fall  VISA1800C  S01  17101  MW  9:00-11:50  (W. Edwards)

VISA 1800O. Drawing with Watercolor.
This course will be a rigorous examination of the possibilities of drawing with watercolor. We will do a lot of work outside and there will be an emphasis on unorthodox use of the watercolor medium. Because the basis of watercolor is sound drawing, there will be considerable instruction and practice in drawing fundamentals such as perspective, value, composition, scale, rendering, etc. Recommended prerequisite: VISA 0100, 0110, or comparable foundation level course is expected.
Fall  VISA1800O  S01  17093  TTh  1:00-3:50  (L. Tarentino)

Visual artists don't have agents or managers—you have to do it all yourself. This class covers business basics including tracking inventory and preparing invoices; taking legal precautions like registering a copyright and drafting consignment forms; using promotional tools; and making decisions such as choosing the right venue for your work. Grants, residencies, and relationships with galleries & nonprofit institutions will be discussed in depth. Work will emphasize community the practical, skills to thrive as a visual artist. Enrollment limited to 20 juniors and seniors in Visual Art. WRIT
Spr  VISA1800P  S01  25651  F  1:00-4:50  (H. Bhandan)

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:
- AFR 0090 An Introduction to Africana Studies
- AFR 1360 Africana Studies: Knowledge, Texts and Methodology—Senior Capstone Seminar (Spring ONLY)

**Please note:** Beginning with the class of 2021, the concentration will be comprised of a total of 9 courses, which will include a junior seminar.

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 (that is, they must carry AFRI prefixes).

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.

**For more information about the concentration, please contact Professor Lundy Braun** ([https://vivo.brown.edu/display/lbraun](https://vivo.brown.edu/display/lbraun)), Director of Undergraduate Studies.

**Honors**

Africana Studies’ concentrators with outstanding records may be admitted to the department’s Honors Program.

Students interested in pursuing honors should identify a faculty sponsor in Africana Studies in their 6th semester and begin working on their thesis project during the summer before their senior year. By the end of the second week of Semester I of their senior year, while working in consultation with a faculty advisor, the student must prepare a work plan/proposal. Please visit department website for proposal guidelines. This plan should include a timeline for completion of the thesis and is not to exceed (3) typewritten pages. The student should also identify a second reader at this point. The work plan/proposal must be approved and signed by a committee, comprised of the faculty advisor who is to direct the Honor’s thesis, the second reader, and the concentration advisor. The thesis sponsor should inform the Director of Undergraduate Studies by email after approval of the proposal.

By the time the proposal is submitted, the Honor’s candidate should be familiar with the secondary works in the field. (Secondary readings should be extensive and be incorporated into the proposal.) The Honor’s candidate is also expected to complete research paper of distinguished quality while enrolled in an independent study with their faculty advisor during the first semester of the senior year. In most cases, this paper will be one or two chapters in their thesis. Students must enroll in at least one, preferably two, semesters of independent study to work on their thesis.

For students completing graduation requirements by the end of Semester I (Fall), a first complete draft of the thesis should be completed by November 9, 2018. Final drafts must be submitted by November 30, 2018. For students completing graduation requirements by Semester II (Spring), the first complete draft of the thesis should be submitted by March 15, 2019. The final draft of the thesis should be submitted by April 19, 2019. Students must submit bound copies of the final thesis to the department and to each of the readers, along with an electronic copy of the completed thesis to the Academic Department Manager. All students will present their thesis projects to the Department of Africana Studies on the last Friday of April at a time to be determined. After this presentation, a department committee will make recommendations for honors to the Director of Undergraduate Studies and students will receive notification of the recommendation.

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.

Interested students may contact Professor Haviland (beverly_haviland@brown.edu?subject=American Studies concentration), the director of undergraduate studies.

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.

**Requirements:**

Each concentrator will take 10 upper-level courses, four of which must be seminars, including a Junior Seminar and a Senior Seminar. In addition, students who wish to graduate with honors are required to take two semesters of AMST 1970 for a total of 12 credits.

Each concentrator will create an individual FOCUS consisting of at least three courses in consultation with the Concentration Advisor. 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.

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 and are encouraged to take AMST 1800, the Honors Seminar, in the Spring of their Junior year. Students pursuing honors are required to take two independent study courses in their senior year, in addition to the regular concentration requirements, in order to write their honors thesis.

**Requirements for the American Studies Concentration**

**Junior Seminar:** A course from the AMST 1700 Series, for example:
**American Studies at Brown emphasizes four intersecting approaches that are critical tools for understanding these themes:**

<table>
<thead>
<tr>
<th>AMST 1700B</th>
<th>Death and Dying in America</th>
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<tbody>
<tr>
<td>AMST 1700C</td>
<td>Slavery in American History, Culture and Memory</td>
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<tr>
<td>AMST 1700D</td>
<td>Race and Remembering</td>
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<td>AMST 1700F</td>
<td>American Publics</td>
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<tr>
<td>AMST 1700I</td>
<td>Community Engagement with Health and the Environment</td>
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**Senior Seminar:** A course from the AMST 1900 series taken during the senior year, for example:

<table>
<thead>
<tr>
<th>AMST 1900A</th>
<th>The Problem of Class in America</th>
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<tbody>
<tr>
<td>AMST 1900B</td>
<td>America and the Asian Pacific: A Cultural History</td>
</tr>
<tr>
<td>AMST 1900C</td>
<td>Narratives of Slavery</td>
</tr>
<tr>
<td>AMST 1900D</td>
<td>America as a Trans-Pacific Culture</td>
</tr>
<tr>
<td>AMST 1900F</td>
<td>Transnational Popular Culture</td>
</tr>
<tr>
<td>AMST 1900G</td>
<td>Movements, Morals, and Markets</td>
</tr>
<tr>
<td>AMST 1900I</td>
<td>Latina/o Cultural Theory</td>
</tr>
<tr>
<td>AMST 1900J</td>
<td>Race, Immigration and Citizenship</td>
</tr>
<tr>
<td>AMST 1900K</td>
<td>China in the American Imagination</td>
</tr>
<tr>
<td>AMST 1900L</td>
<td>Cold War Culture The American Culture in the Cold War</td>
</tr>
<tr>
<td>AMST 1900N</td>
<td>Ethnicity, Identity and Culture in 20th Century New York City</td>
</tr>
<tr>
<td>AMST 1900O</td>
<td>Filipino American Cultures</td>
</tr>
<tr>
<td>AMST 1900P</td>
<td>Essaying Culture</td>
</tr>
<tr>
<td>AMST 1900Q</td>
<td>From Perry to Pokemon: Japan in the United States, the United States in Japan</td>
</tr>
<tr>
<td>AMST 1900R</td>
<td>Gender, Race, and Class in the United States</td>
</tr>
<tr>
<td>AMST 1900S</td>
<td>Green Cities: Parks and Designed Landscapes in Urban America</td>
</tr>
<tr>
<td>AMST 1900U</td>
<td>Immigrant Radicals: Asian Political Movements in the Americas 1850-1970</td>
</tr>
<tr>
<td>AMST 1900V</td>
<td>Immigrants, Exiles, Refugees, and Citizens in the Americas</td>
</tr>
<tr>
<td>AMST 1900W</td>
<td>Latina Literature: The Shifting Boundaries of Identity</td>
</tr>
<tr>
<td>AMST 1900X</td>
<td>Latina/o Religions: Encounters of Contestations and Transformations</td>
</tr>
<tr>
<td>AMST 1900Y</td>
<td>Latino New York</td>
</tr>
<tr>
<td>AMST 1900Z</td>
<td>Latinos and Film</td>
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</table>

Two additional upper-level seminars taken from the AMST 1700, AMST 1800, or AMST 1900 series

<table>
<thead>
<tr>
<th>AMST 1250G</th>
<th>Topics in Material Culture Studies: The Arts and Crafts Movement in America 1880-1920</th>
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<tbody>
<tr>
<td>AMST 1596</td>
<td>Education Beyond the Classroom Walls: Teaching and Learning in Cultural Institutions</td>
</tr>
<tr>
<td>AMST 1600D</td>
<td>Sports in American Society</td>
</tr>
<tr>
<td>AMST 1601</td>
<td>Health and Healing in American History</td>
</tr>
<tr>
<td>AMST 1611M</td>
<td>Trauma and the Shame of the Unspeakable: The Holocaust, American Slavery, and Childhood Sexual Abuse</td>
</tr>
<tr>
<td>AMST 1901D</td>
<td>Motherhood in Black and White</td>
</tr>
<tr>
<td>AMST 1902Z</td>
<td>Radio: From Hams to Podcasts</td>
</tr>
<tr>
<td>AMST 1904V</td>
<td>Decolonizing Minds: A People's History of the World</td>
</tr>
<tr>
<td>AMST 1905N</td>
<td>War and the Mind in Modern America</td>
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**Additional criteria concerning the FOCUS:**
- Three of the ten (10) required upper-level courses must fit into the FOCUS
- Up to four (4) courses from other departments can be counted toward the concentration IF and ONLY IF they fit into the FOCUS

**Honors**

| AMST 1970  | Independent Reading and Research |

**WHAT we study**

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.
- **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. The department also allows students to pursue the Engaged Scholars Program (https://www.brown.edu/academics/college/special-programs/public-service/engaged-scholars-program). ESP is for students with an interest in making deeper connections between their concentration curriculum and long-term engaged activities such as internships, public service, humanitarian and development work, archaeological excavations, and many other possible forms of community involvement.

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:
- ANTH 0100 Introduction to Cultural Anthropology
- ANTH 0110 Anthropology and Global Social Problems: Environment, Development, and Governance
- 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:
- ANTH 0310 Human Evolution
- ANTH 0500 Past Forward: Discovering Anthropological Archaeology

Select one of the following, normally taken in junior or sophomore year:
- ANTH 1621 Material Culture Practicum
- ANTH 1900 History of Anthropology: Anthropological Theories
- ANTH 1940 Ethnographic Research Methods
- ANTH 1950 Archaeological Field Work

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 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. The undergraduate concentration guide is available here (http://www.brown.edu/academics/applied-mathematics/undergraduate).

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

| MATH 0090 Introductory Calculus, Part I | APMA 0100 Calculus, Part II |
| Or their equivalent |

Program

Ten additional semester courses approved by the Division of Applied Mathematics. These classes must include: 1

- MATH 0180 Intermediate Calculus 1
- MATH 0520 Linear Algebra 2
- APMA 0350 Applied Ordinary Differential Equations 2
- APMA 0360 and Applied Partial Differential Equations 1 3

Select one course on programming from the following: 4 1

- APMA 0090 Introduction to Mathematical Modelling
- 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

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.
Concentrators are urged to complete their introductory programming course before the end of their sophomore year.

### Standard program for the Sc.B. degree.

#### Program

Eighteen approved semester courses in mathematics, applied mathematics, engineering, the natural or social sciences. These classes must include:

<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>2</td>
</tr>
<tr>
<td>&amp; MATH 0100</td>
<td>and Introductory Calculus, Part II</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
<td>1</td>
</tr>
<tr>
<td>&amp; APMA 0360</td>
<td>and Applied Partial Differential Equations</td>
<td>2</td>
</tr>
</tbody>
</table>

Select one senior seminar from the APMA 1930 or APMA 1940 series, or an approved equivalent.

Select one course on programming from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0090</td>
<td>Introduction to Mathematical Modeling</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0160</td>
<td>Introduction to Scientific Computing</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
<td>1</td>
</tr>
</tbody>
</table>

Ten additional courses, of which six should be chosen from the 1000-level or higher level courses taught by the Division of Applied Mathematics.

#### Total Credits: 18

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.

### Applied Mathematics-Biology

The Applied Math - Biology concentration recognizes that mathematics is essential to address many modern biological problems in the post genomics era. Specifically, high throughput technologies have rendered vast new biological data sets that require novel analytical skills for the most basic analyses. These technologies are spawning a new “data-driven” paradigm in the biological sciences and the fields of bioinformatics and systems biology. The foundations of these new fields are inherently mathematical, with a focus on probability, statistical inference, and systems dynamics. These mathematical methods apply very broadly in many biological fields including some like population growth, spread of disease, that predate the genomics revolution. Nevertheless, the application of these methods in areas of biology from molecular genetics to evolutionary biology has grown very rapidly in with the availability of vast amounts of genomic sequence data. 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.

#### 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.

#### Required Courses:

Students are required to take all of the following 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>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus (or equivalent placement)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics A</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0050</td>
<td>Foundations of Mechanics</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following sequences:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
<td>1</td>
</tr>
<tr>
<td>&amp; APMA 0360</td>
<td>and Applied Partial Differential Equations</td>
<td>2</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I</td>
<td>1</td>
</tr>
<tr>
<td>&amp; APMA 0340</td>
<td>Methods of Applied Mathematics II</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 1655</td>
<td>Statistical Inference I</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1070</td>
<td>Quantitative Models of Biological Systems</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1080</td>
<td>Inference in Genomics and Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or equivalent)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Additional Courses

In addition to required courses listed above, students must take the following:

Two additional courses in Applied Math or Biology. At least one of these must be a directed research course, e.g. a senior seminar or independent study in Applied Math or a directed research/independent study in Biology. For example:

- A course from the APMA 1930 series
- A course from the APMA 1940 series
- APMA 1970, APMA 1950
- BIOL 1950, BIOL 1960

We strongly recommend that Applied Mathematics-Biology concentrators take one of the following programming courses or on or before their first semester as a concentrator:

- APMA 0160, CSCI 0040, CSCI 0150, CSCI 0170, CSCI 0190, CLPS 0950
- Those who do can use it as their second Applied Math or Biology course.

Four classes in the biological sciences agreed upon by the student and advisor. These four courses should form a cohesive grouping in a specific area of emphasis, at least two of which should be at the 1000-level. Some example groupings are below:

#### Areas of Emphasis and Suggested Courses:

Some areas of possible emphasis for focusing of elective courses are listed below. Given the large number of course offerings in the biosciences and neuroscience, students are free to explore classes in these areas that are not listed below. However, all classes must be approved by the concentration advisor.

**Biochemistry**

- BIOL 0280, BIOL 1270

**Chemical Biology**

- CHEM 0350/0360, CHEM 1230

**Biotechnology and Physiology**

- BIOL 0800, Principles of Physiology
are the same as those of the biology concentrations. However, students are encouraged to apply. The deadline for applying to graduate with honors in the concentration as demonstrated in the thesis and supported by the Thesis Committee, typically maintain a Grade Point Average of 3.4 or higher in the accordance with the university policy on honors. Honors recipients 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. This degree offers a standard track and a professional track.

**Requirements for the Standard Track of the Sc.B. degree.**

**Prerequisites - two semesters of Calculus, for example**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
</tr>
<tr>
<td>&amp; MATH 0100</td>
<td>and Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
</tbody>
</table>

**Concentration Requirements (17 courses)**

**Core-Math:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus</td>
</tr>
<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</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>Coding the Matrix: An Introduction to Linear Algebra for Computer Science</td>
</tr>
</tbody>
</table>

**Core-Applied Mathematics:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
</tr>
<tr>
<td>APMA 0360</td>
<td>Applied Partial Differential Equations I</td>
</tr>
<tr>
<td>APMA 1170</td>
<td>Introduction to Computational Linear Algebra</td>
</tr>
<tr>
<td>or APMA 1180</td>
<td>Introduction to Numerical Solution of Differential Equations</td>
</tr>
</tbody>
</table>

**Core-Computer Science:**

Select one of the following Series:

**Series A**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td>Introduction to Algorithms and Data Structures</td>
</tr>
</tbody>
</table>

**Series B**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0190</td>
<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 course)</td>
</tr>
</tbody>
</table>

Select three of the following intermediate-level courses, one of which must be math-oriented and one systems-oriented:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>
</tbody>
</table>

**Honors**

Requirements and Process: Honors in the Applied Math-Biology concentration is based primarily upon an in-depth, original research project carried out under the guidance of a Brown (and usually Applied Math or BioMed) affiliated faculty advisor. Projects must be conducted for no less than two full semesters, and student must register for credit for the project via APMA 1970 or BIOL 1950/BIOL 1960 or similar independent study courses. The project culminates in the writing of a thesis which is reviewed by the thesis advisor and a second reader. It is essential that the student have one advisor from the biological sciences and one in Applied Mathematics. The thesis work must be presented in the form of an oral presentation (arranged with the primary thesis advisor) or posted at the annual Undergraduate Research Day in either Applied Mathematics or Biology. For information on registering for BIOL 1950/BIOL 1960, please see https://www.brown.edu/academics/biology/undergraduate-education/

Excellence in grades within the concentration as well as a satisfactory evaluation by the advisors are also required for Honors. The student's grades must place them within the upper 20% of their cohort, in accordance with the university policy on honors. Honors recipients typically maintain a Grade Point Average of 3.4 or higher in the concentration. However, in the case of outstanding independent research as demonstrated in the thesis and supported by the Thesis Committee, candidates with a GPA between 3.0 and 3.4 will be considered and are encouraged to apply.

The deadline for applying to graduate with honors in the concentration are the same as those of the biology concentrations. However, students in the joint concentration must inform the undergraduate chair in Applied Mathematics of their intention to apply for honors by these dates.
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 finance, or for careers in finance or financial engineering. Both tracks have A.B. degree versions and Sc.B. degree versions, as well as a Professional track option.

Standard Program for the A.B. degree (Advanced Economics track):

Prerequisites:
- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra

Course Requirements:

Applied Mathematics Requirements

(a) 1
- APMA 0350
- & APMA 0360
- Applied Ordinary Differential Equations I
  and Applied Partial Differential Equations I

Select one of the following:
- APMA 0160 Introduction to Scientific Computing (preferred)
- CSCI 0040 Introduction to Scientific Computing and Problem Solving (preferred)
- 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
- or APMA 1655 Statistical Inference I

(b) 1
- Select one of the following:
  - APMA 1200 Operations Research: Probabilistic Models
  - APMA 1210 Operations Research: Deterministic Models
  - APMA 1330 Applied Partial Differential Equations II
  - APMA 1360 Topics in Chaotic Dynamics
  - APMA 1660 Statistical Inference II
  - APMA 1690 Computational Probability and Statistics
  - APMA 1720 Monte Carlo Simulation with Applications to Finance
  - APMA 1740 Recent Applications of Probability and Statistics
  - MATH 1010 Analysis: Functions of One Variable

Economics Requirements:

- ECON 1130 Intermediate Microeconomics (Mathematical) 3
- ECON 1210 Intermediate Macroeconomics 1
- ECON 1630 Econometrics I 1
- Two 1000-level courses from the "mathematical-economics" group: 2
  - ECON 1170 Welfare Economics and Social Choice Theory
  - ECON 1220 Monetary and Fiscal Policy
  - ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
  - ECON 1460 Industrial Organization
  - ECON 1465 Market Design: Theory and Applications
  - ECON 1470 Bargaining Theory and Applications
  - ECON 1490 Designing Internet Marketplaces
  - ECON 1640 Econometrics II

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.
| ECON 1650 | Financial Econometrics |
| ECON 1660 | Big Data |
| ECON 1670 | Advanced Topics in Econometrics |
| ECON 1740 | Mathematical Finance |
| 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 1000-level course from the "data methods" group: 1

| ECON 1301 | Economics of Education I |
| ECON 1305 | Economics of Education: Research |
| ECON 1310 | Labor Economics |
| ECON 1355 | Environmental Issues in Development Economics |
| ECON 1360 | Health Economics |
| ECON 1375 | Inequality of Opportunity in the US |
| ECON 1400 | The Economics of Mass Media |
| ECON 1410 | Urban Economics |
| ECON 1480 | Public Economics |
| ECON 1510 | Economic Development |
| ECON 1520 | The Economic Analysis of Institutions |
| ECON 1530 | Health, Hunger and the Household in Developing Countries |
| ECON 1629 | Applied Research Methods for Economists |
| ECON 1640 | Econometrics II |
| ECON 1650 | Financial Econometrics |
| ECON 1660 | Big Data |
| ECON 1759 | Data, Statistics, Finance |
| ECON 1765 | Finance, Regulation, and the Economy: Research |

One additional 1000-level economics course 1

Total Credits 13

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.
4. No course may be used to simultaneously satisfy the "mathematical economics" and the "data methods" requirements.

**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) 1

| APMA 0350 | Applied Ordinary Differential Equations |
| & APMA 0360 | Applied Partial Differential Equations |

Select one of the following: 1

| APMA 0160 | Introduction to Scientific Computing (preferred) |
| CSCI 0040 | Introduction to Scientific Computing and Problem Solving (preferred) |

| ECON 1301 | Economics of Education I |
| ECON 1305 | Economics of Education: Research |
| ECON 1310 | Labor Economics |
| ECON 1355 | Environmental Issues in Development Economics |
| CSCI 0150 | Introduction to Object-Oriented Programming and Computer Science |
| CSCI 0170 | Computer Science: An Integrated Introduction |

Select one of the following: 1

| APMA 1200 | Operations Research: Probabilistic Models |
| APMA 1210 | Operations Research: Deterministic Models |
| APMA 1650 | Statistical Inference I |
| or APMA 1655 | Statistical Inference I |
| APMA 1655 | Statistical Inference I |

Select two of the following: 2

| APMA 1200 | Operations Research: Probabilistic Models |
| APMA 1210 | Operations Research: Deterministic Models |
| APMA 1330 | Applied Partial Differential Equations II |
| APMA 1360 | Topics in Chaotic Dynamics |
| APMA 1660 | Statistical Inference II |
| APMA 1690 | Computational Probability and Statistics |
| APMA 1720 | Monte Carlo Simulation with Applications to Finance |
| APMA 1740 | Recent Applications of Probability and Statistics |
| 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 courses from the "mathematical-economics" group: 3

| ECON 1170 | Welfare Economics and Social Choice Theory |
| ECON 1220 | Monetary and Fiscal Policy |
| ECON 1225 | Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies |
| ECON 1460 | Industrial Organization |
| ECON 1465 | Market Design: Theory and Applications |
| ECON 1470 | Bargaining Theory and Applications |
| ECON 1490 | Designing Internet Marketplaces |
| ECON 1640 | Econometrics II |
| ECON 1650 | Financial Econometrics |
| ECON 1660 | Big Data |
| ECON 1670 | Advanced Topics in Econometrics |
| ECON 1740 | Mathematical Finance |
| 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 1000-level course from the "data methods" group: 1

| ECON 1301 | Economics of Education I |
| ECON 1305 | Economics of Education: Research |
| ECON 1310 | Labor Economics |
| ECON 1355 | Environmental Issues in Development Economics |

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For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ECON 1375  Inequality of Opportunity in the US
ECON 1400  The Economics of Mass Media
ECON 1410  Urban Economics
ECON 1480  Public Economics
ECON 1510  Economic Development
ECON 1520  The Economic Analysis of Institutions
ECON 1530  Health, Hunger and the Household in Developing Countries
ECON 1629  Applied Research Methods for Economists
ECON 1640  Econometrics II
ECON 1650  Financial Econometrics
ECON 1660  Big Data
ECON 1759  Data, Statistics, Finance
ECON 1765  Finance, Regulation, and the Economy: Research

Two additional 1000-level economics courses  2
Total Credits  16

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.
4 No course may be used to simultaneously satisfy the "mathematical economics" and the "data methods" requirements.
5 Note that Econ 1620, 1960, and 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

**Standard program for the A.B. degree (Mathematical Finance track):**

**Prerequisites:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>
</tbody>
</table>

**Course Requirements: 13 Courses: 6 Applied Math and 7 Economics**

**Applied Mathematics Requirements**

(a)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0350 and APMA 0360</td>
<td>Applied Ordinary Differential Equations and Partial Differential Equations I</td>
</tr>
</tbody>
</table>

Select one of the following:

- APMA 0360  Applied Partial Differential Equations I
- APMA 0160  Introduction to Scientific Computing (preferred)
- CSCI 0040  Introduction to Scientific Computing and Problem Solving (preferred)
- 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
- or APMA 1655  Statistical Inference I

(b)

Select one of the following:

- APMA 1180  Introduction to Numerical Solution of Differential Equations
- APMA 1210  Operations Research: Deterministic Models
- APMA 1330  Applied Partial Differential Equations II

APMA 1360  Topics in Chaotic Dynamics
APMA 1660  Statistical Inference II
APMA 1655  Statistical Inference I
APMA 1690  Computational Probability and Statistics
APMA 1720  Monte Carlo Simulation with Applications to Finance (preferred)
APMA 1740  Recent Applications of Probability and Statistics
MATH 1010  Analysis: Functions of One Variable

**Economics Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>

Select two 1000-level courses from the "financial economics" group: 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1650</td>
<td>Financial Econometrics</td>
</tr>
<tr>
<td>ECON 1710</td>
<td>Investments I</td>
</tr>
<tr>
<td>ECON 1720</td>
<td>Corporate Finance</td>
</tr>
<tr>
<td>ECON 1730</td>
<td>Venture Capital, Private Equity, and Entrepreneurship</td>
</tr>
<tr>
<td>ECON 1740</td>
<td>Mathematical Finance</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 1760</td>
<td>Financial Institutions</td>
</tr>
<tr>
<td>ECON 1765</td>
<td>Finance, Regulation, and the Economy: Research</td>
</tr>
<tr>
<td>ECON 1770</td>
<td>Fixed Income Securities</td>
</tr>
<tr>
<td>ECON 1780</td>
<td>Corporate Strategy</td>
</tr>
<tr>
<td>ECON 1790</td>
<td>Corporate Governance and Management</td>
</tr>
</tbody>
</table>

Select one 1000-level course from the "mathematical economics" group: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1170</td>
<td>Welfare Economics and Social Choice Theory</td>
</tr>
<tr>
<td>ECON 1220</td>
<td>Monetary and Fiscal Policy</td>
</tr>
<tr>
<td>ECON 1225</td>
<td>Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies</td>
</tr>
<tr>
<td>ECON 1460</td>
<td>Industrial Organization</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 1490</td>
<td>Designing Internet Marketplaces</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 1660</td>
<td>Big Data</td>
</tr>
<tr>
<td>ECON 1670</td>
<td>Advanced Topics in Econometrics</td>
</tr>
<tr>
<td>ECON 1740</td>
<td>Mathematical Finance</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>

Select one 1000-level course from the "data methods" group: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1301</td>
<td>Economics of Education I</td>
</tr>
<tr>
<td>ECON 1305</td>
<td>Economics of Education: Research</td>
</tr>
<tr>
<td>ECON 1310</td>
<td>Labor Economics</td>
</tr>
<tr>
<td>ECON 1355</td>
<td>Environmental Issues in Development Economics</td>
</tr>
</tbody>
</table>
ECON 1360  Health Economics
ECON 1375  Inequality of Opportunity in the US
ECON 1400  The Economics of Mass Media
ECON 1410  Urban Economics
ECON 1510  Economic Development
ECON 1520  The Economic Analysis of Institutions
ECON 1530  Health, Hunger and the Household in Developing Countries
ECON 1629  Applied Research Methods for Economists
ECON 1640  Econometrics II
ECON 1650  Financial Econometrics
ECON 1660  Big Data
ECON 1750  Data, Statistics, Finance
ECON 1765  Finance, Regulation, and the Economy: Research

Total Credits 13

1 APMA 0330 and APMA 0340 may be substituted with advisor approval.
2 No course may be used to simultaneously satisfy the "financial economics," the "mathematical economics," or the "data methods" requirements.
3 Or ECON 1110 with permission.
4 Note that Econ 1620, 1960, and 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

Standard program for the Sc.B. degree (Mathematical Finance track):

Prerequisites:

MATH 0100  Introductory Calculus, Part II
MATH 0520  Linear Algebra

Course Requirements: 16 courses: 7 Applied Math and 9 Economics

Applied Mathematics requirements:

(a) APMA 0350 & APMA 0360

Select one of the following:

APMA 0160  Introduction to Scientific Computing (preferred)
CSCI 0040  Introduction to Scientific Computing and Problem Solving (preferred)
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
APMA 1655  Statistical Inference

(b) Select two of the following:

APMA 1180  Introduction to Numerical Solution of Differential Equations
APMA 1210  Operations Research: Deterministic Models
APMA 1330  Applied Partial Differential Equations II
APMA 1360  Topics in Chaotic Dynamics

APMA 1660  Statistical Inference II
APMA 1690  Computational Probability and Statistics
APMA 1720  Monte Carlo Simulation with Applications to Finance (preferred)
APMA 1740  Recent Applications of Probability and Statistics

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 three 1000-level courses from the "financial economics" group: 2

ECON 1650  Financial Econometrics
ECON 1710  Investments I
ECON 1720  Corporate Finance
ECON 1730  Venture Capital, Private Equity, and Entrepreneurship
ECON 1740  Mathematical Finance
ECON 1750  Investments II
ECON 1759  Data, Statistics, Finance
ECON 1760  Financial Institutions
ECON 1765  Finance, Regulation, and the Economy: Research
ECON 1770  Fixed Income Securities
ECON 1780  Corporate Strategy
ECON 1790  Corporate Governance and Management

Select two 1000-level courses from the "mathematical economics" group: 2

ECON 1170  Welfare Economics and Social Choice Theory
ECON 1220  Monetary and Fiscal Policy
ECON 1225  Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
ECON 1460  Industrial Organization
ECON 1465  Market Design: Theory and Applications
ECON 1470  Bargaining Theory and Applications
ECON 1490  Designing Internet Marketplaces
ECON 1640  Econometrics II
ECON 1650  Financial Econometrics
ECON 1660  Big Data
ECON 1670  Advanced Topics in Econometrics
ECON 1740  Mathematical Finance
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

Select one 1000-level course from the "data methods" group: 2

ECON 1301  Economics of Education I
ECON 1305  Economics of Education: Research
ECON 1310  Labor Economics
ECON 1355  Environmental Issues in Development Economics
ECON 1360  Health Economics
ECON 1400  The Economics of Mass Media
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. Students will learn about the art, architecture, and material culture of the ancient world, exploring things of beauty and power, as well as the world of the everyday. Concentrators will also learn "how to do" archaeology - the techniques of locating, retrieving and analyzing ancient remains - and consider how material culture shapes our understanding of the past. Concentrators are encouraged to pursue research opportunities through summer fieldwork, museum experience, or independent study projects.

The undergraduate concentration in Archaeology and the Ancient World provides students with an opportunity to explore the multi-faceted discipline of archaeology, and encourages an interdisciplinary approach to engaging with the ancient world. While the core focus of Archaeology and the Ancient World at Brown University is archaeology and art of the ancient Mediterranean, Egypt, and the Near East, this concentration encourages students to reach beyond this geographic area, to engage with Brown’s many strengths in history, epigraphy, art, ethics, engineering, religious studies, and the sciences - to name just a few. 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. All three tracks begin with the same foundation. Students are then expected to experiment with and define their own areas of specialty, establishing expertise in topics such as cultural heritage, archaeological theory, or materials analysis, or in particular regions or time periods. The concentration is also designed to allow students to build progressively upon what they have learned, moving from introductory courses to upper-level seminars.

It is expected that, in completing the requirements for this concentration, students will incorporate courses that offer new perspectives on the complex dynamics of social inequality, exclusion, and difference, and which encourage engagement with the community — both by enrolling in classes designated as Diverse Perspectives in Liberal Learning (DPLL) and through non-DPLL classes that explore similar themes. Research opportunities, through summer fieldwork, internships, museum experience, or independent study projects, are strongly encouraged.

Within this concentration, the three tracks are:

- **Archaeology and the Ancient World**: the most flexible of the concentration tracks, allowing students to explore any region or time period, and to develop their own areas of focus, such as museum studies, ethics and politics of the past, engineering and materials analysis, cultural heritage, or environmental studies.
- **Classical Archaeology**: for those interested chiefly in the ‘classic’ civilizations of the Mediterranean (especially Greece and Rome), as well as for those interested in both earlier (prehistoric) and later (medieval) periods in that geographic region.
- **Egyptian and Near Eastern Archaeology**: for those interested chiefly in the cultures of Egypt and the ancient ‘Near East’ – Anatolia, the Levant, Mesopotamia – from prehistoric through Islamic times.

### Required Courses:

The student must take a total of 10 courses, including:

**CORE REQUIREMENTS:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 0100</td>
<td>Field Archaeology in the Ancient World</td>
</tr>
<tr>
<td>ARCH 1900</td>
<td>The Archaeology of College Hill</td>
</tr>
<tr>
<td>ANTH 0500</td>
<td>Past Forward: Discovering Anthropological Archaeology</td>
</tr>
</tbody>
</table>

All three tracks share four Core Requirements: two introductory courses providing an overview of archaeology’s two central aspects (field methodologies, and art history); and two introductory courses in the core geographical focus of the Joukowsky Institute (Classical/Mediterranean archaeology and Egyptian/Near Eastern archaeology).

One introductory course in archaeological methodology and/or scientific approaches, preferably:

<table>
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<tr>
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<td>Urban Economics</td>
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<td>ECON 1520</td>
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<td>ECON 1765</td>
<td>Finance, Regulation, and the Economy: Research</td>
</tr>
</tbody>
</table>

Total Credits: 16

1. APMA 0330 and APMA 0340 may be substituted with advisor approval.
2. No course may be used to simultaneously satisfy the "financial economics," the "mathematical economics," or the "data methods" requirements.
3. Or ECON 1110 with permission.
4. Note that Econ 1620, 1960, and 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

**Honors and Capstone Requirement**

Admission to candidacy for honors in the concentration is granted on the following basis: 3.7 GPA for Economics courses, and a 3.5 GPA overall.

To graduate with honors, a student must write an honors thesis in the following basis: 3.7 GPA for Economics courses, and a 3.5 GPA overall.

### Professional Track

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.
One introductory course in ancient art history, preferably:  
ARCH 0030 Art in Antiquity: An Introduction
or an ancient art history course approved by the concentration advisor. Appropriate courses could include, for example:
ARCH 0150 Introduction to Egyptian Archaeology and Art
ARCH 0520 Roman Archaeology and Art

One introductory ARCH course in Egyptian or Near Eastern archaeology, art, and/or architecture, for example:
ARCH 0152 Egyptomania: Mystery of the Sphinx and Other Secrets of Ancient Egypt
ARCH 0360 East Meets West: Archaeology of Anatolia

One introductory ARCH course in Classical or Mediterranean-archaeology, art, and/or architecture, for example:
ARCH 0270 Troy Rocks! Archaeology of an Epic
ARCH 0420 Archaeologies of the Greek Past

TRACK REQUIREMENTS:
In addition to the Core Requirements above, each of the three tracks requires six additional courses, which allow students to define their own areas of geographic and/or topical specialty.

Archaeology and the Ancient World:  
One ARCH course, of any level, that focuses on a particular thematic or theoretical topic pertaining to archaeology, for example:
ARCH 0315 Heritage In and Out of Context: Museum and Archaeological Heritage
ARCH 1800 Contemporary Issues in Archaeological Theory

One ARCH course, of any level, that focuses on a part of the world OTHER than Mediterranean, Egyptian, or Near Eastern, for example:
ANTH 0066U An Archaeology of Native American Art
ARCH 0160 Buried History, Hidden Wonders: Discovering East Asian Archaeology

Two additional ARCH courses, on any aspect of archaeology and art, at the 1000 level (or above). Students are encouraged to use these upper-level courses to define a particular core specialty or track, such as a focus on archaeological theory, museum studies, archaeological ethics, materials analysis, cultural heritage, or climate change, for example:
ARCH 1550 Who Owns the Classical Past?
ANTH 1720 The Human Skeleton

Two non-ARCH courses 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, Egyptology and Assyriology, Environmental Studies, Geological Sciences, History, History of Art and Architecture, Religious Studies. One term of language study, in any relevant (usually, ancient) language, may also be counted toward this requirement.

Classical Archaeology:  
One course in ancient Greek or Roman history, for example:
CLAS 1210 Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC
CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC
CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic
CLAS 1320 Roman History II: The Roman Empire and Its Impact

One course in either Ancient Greek or Latin, at a level beyond the first year of study, for example:
GREK 0300/0400 Introduction to Greek Literature

LATN 0300/0400 Introduction to Latin Literature

Two courses in Mediterranean (prehistoric, Greek, Roman, medieval) archaeology and art, at the 1000 level (or above).
One ARCH course, of any level, that focuses on a part of the world OTHER than Mediterranean, Egyptian, or Near Eastern OR focuses on a particular thematic topic pertaining to archaeology, for example:
ARCH 1490 The Archaeology of Central Asia: Alexander in Afghanistan, and Buddhas in Bactria

ARCH 1540 Cultural Heritage: The Players and Politics of Protecting the Past

One non-ARCH course which EITHER relates 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, Egyptology and Assyriology, Environmental Studies, Geological Sciences, History, History of Art and Architecture, Religious Studies.

Egyptian and Near Eastern Archaeology:  
Two courses in Egyptian and Near Eastern archaeology and art at the 1000 level (or above).
Two terms of course work in a pertinent ancient language (such as Akkadian, Coptic, Classical Hebrew, Middle Egyptian).
One ARCH course, of any level, that focuses on a part of the world OTHER than Mediterranean, Egyptian, or Near Eastern OR focuses on a particular thematic topic pertaining to archaeology, for example:
ARCH 0335 Archaeology of the Andes
ARCH 1170 Community Archaeology in Providence and Beyond

One non-ARCH course which EITHER relates 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, Egyptology and Assyriology, Environmental Studies, Geological Sciences, History, History of Art and Architecture, Religious Studies.

TOTAL (including Core and Track Requirements): 10

1 All formally cross-listed courses, regardless of home department, can be considered ARCH courses and can fulfill the relevant concentration requirement(s). There is no limit on the number of cross-listed courses that can count toward the completion of a concentration.
2 Students who are doing a double concentration are allowed up to two courses that are also counted toward (i.e., overlap with) their second concentration to fulfill Archaeology concentration requirements.

Fieldwork, Study Abroad, and Capstone Experiences

Students are strongly encouraged to consider participating in a field project, most typically after sophomore or junior year. The Joukowsky Institute’s Assistant Director and other faculty members can provide suggestions about how to explore and fund possible field projects. For each of the tracks, a capstone experience may be substituted for one of these required courses. With the permission of the Assistant Director or the Director of Undergraduate Studies, up to three successfully completed courses, from relevant and accredited study abroad programs, may be counted towards the concentration requirements. Field school courses that provide formal university transfer credit, and official transcripts, may also be used to fulfill 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 Joukowsky Institute’s Assistant Director and faculty members 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.

The Honors Thesis

The Honors thesis is an extended essay, usually of between 40 and 60 pages in length, researched and written under the supervision of a faculty advisor and second reader during the senior year (during which the student must be enrolled in ARCH 1970 in the Fall and ARCH 1990 in the Spring semester).

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.

A preliminary title and one page outline of the proposed Honors thesis is due to the Joukowsky Institute’s Assistant Director and the thesis advisor by May 15th of the junior year.

The deadlines for thesis drafts, and for final thesis submission, will be agreed between the student and the faculty advisors. It is expected that students will have submitted at least one full chapter to their primary advisor by the end of the student’s penultimate semester. The deadline for final thesis submission typically should be on or before April 15th, and must be no later than the first day of Reading Period in the final semester of senior year. Both a bound and an electronic version of the final thesis must be submitted to the Joukowsky Institute by May 1, via email to joukowsky_institute@brown.edu.

The completed thesis will be evaluated by the advisor and second reader, who will discuss its strengths and weaknesses in a joint meeting with the student; they will then make a recommendation concerning Honors, and also agree a grade for ARCH 1990.

The Honors concentrators will be asked to make a short public presentation about their work; this event will be organized by the Joukowsky Institute’s Assistant Director, and usually occurs during or shortly after Reading Period.

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.

Architecture

The Architecture concentration allows students to develop a broad understanding of the concepts and methods for the planning and design of buildings, landscapes, and cities. The concentration was planned with the explicit goal of connecting architectural training firmly with the humanities and providing a greater awareness of global, environmental, social and economic issues in the built environment. This approach to the education of architects and urban planners is meant to provide them with the tools needed in today’s urban global society. Students who complete the concentration will have the option of transitioning into a 2-year Masters of Architecture program at the Rhode Island School of Design or several other architecture schools.

Concentration Requirements

Two RISD double-credit Design Studios: Students will take the courses at the Rhode Island School of Design but will register at Brown.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0001</td>
<td>Architectural Design</td>
</tr>
<tr>
<td>HIAA 0002</td>
<td>Advanced Design Studio</td>
</tr>
</tbody>
</table>

Six Core Requirements: 6

Select Four (4) Courses from RISD: Students will take the courses at the Rhode Island School of Design but will register at Brown.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0003</td>
<td>Architectural Projection</td>
</tr>
<tr>
<td>HIAA 0004</td>
<td>Architectural Analysis</td>
</tr>
<tr>
<td>HIAA 0005</td>
<td>Structural Analysis</td>
</tr>
<tr>
<td>HIAA 0006</td>
<td>Wood Structures</td>
</tr>
<tr>
<td>HIAA 0007</td>
<td>Environmental Design II</td>
</tr>
</tbody>
</table>

Select Two (2) Courses from Brown:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0010</td>
<td>A Global History of Art and Architecture</td>
</tr>
<tr>
<td>HIAA 0042</td>
<td>Islamic Art and Architecture</td>
</tr>
<tr>
<td>HIAA 0081</td>
<td>Architecture of the House Through Space and Time</td>
</tr>
<tr>
<td>HIAA 0770</td>
<td>Architecture and Urbanism of the African Diaspora</td>
</tr>
<tr>
<td>HIAA 0850</td>
<td>Modern Architecture</td>
</tr>
<tr>
<td>or HIAA 0860</td>
<td>Contemporary Architecture</td>
</tr>
<tr>
<td>HIAA 1181</td>
<td>Prefabrication and Architecture</td>
</tr>
</tbody>
</table>

Six Additional Electives: 6

Two courses from History and Theory:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0070</td>
<td>Introduction to American Art: The 19th Century</td>
</tr>
<tr>
<td>HIAA 0081</td>
<td>Architecture of the House Through Space and Time</td>
</tr>
<tr>
<td>HIAA 0560</td>
<td>Popes and Pilgrims in Renaissance Rome</td>
</tr>
<tr>
<td>HIAA 0770</td>
<td>Architecture and Urbanism of the African Diaspora</td>
</tr>
<tr>
<td>HIAA 0860</td>
<td>Contemporary Architecture</td>
</tr>
<tr>
<td>HIAA 1181</td>
<td>Prefabrication and Architecture</td>
</tr>
<tr>
<td>HIAA 1440B</td>
<td>Architecture of Solitude: The Medieval Monastery</td>
</tr>
<tr>
<td>HIAA 1910A</td>
<td>Providence Architecture</td>
</tr>
<tr>
<td>HIAA 1910D</td>
<td>Water and Architecture</td>
</tr>
</tbody>
</table>

Two classes from Engineering and Design:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
</tr>
<tr>
<td>ENGN 0310</td>
<td>Mechanics of Solids and Structures</td>
</tr>
<tr>
<td>ENGN 0930A</td>
<td>Appropriate Technology</td>
</tr>
<tr>
<td>ENGN 0930C</td>
<td>DesignStudio</td>
</tr>
<tr>
<td>ENGN 1000</td>
<td>Projects in Engineering Design I</td>
</tr>
<tr>
<td>ENGN 1300</td>
<td>Structural Analysis</td>
</tr>
<tr>
<td>ENGN 1380</td>
<td>Design of Civil Engineering Structures</td>
</tr>
<tr>
<td>ENGN 1930U</td>
<td>Renewable Energy Technologies</td>
</tr>
</tbody>
</table>

Four additional electives from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1900</td>
<td>The Archaeology of College Hill</td>
</tr>
<tr>
<td>COLT 1810H</td>
<td>Tales of Two Cities: Havana - Miami, San Juan - New York</td>
</tr>
<tr>
<td>ECON 1420</td>
<td>Urbanization in China</td>
</tr>
<tr>
<td>ENGL 1760K</td>
<td>Reading New York</td>
</tr>
<tr>
<td>ENVS 0410</td>
<td>Environmental Stewardship</td>
</tr>
<tr>
<td>ENVS 1400</td>
<td>Sustainable Design in the Built Environment</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Undergraduate Concentrations

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 courses 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: 1-2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<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>
<tr>
<td>MATH 0350</td>
<td>Honors Calculus (or equivalent)</td>
</tr>
</tbody>
</table>

**Program**

Select one of the following mathematics courses: 1

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0200</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>PHYS 0720</td>
<td>Methods of Mathematical Physics</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
</tbody>
</table>

Select two of the following astrophysics courses: 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1100</td>
<td>Introduction to General Relativity</td>
</tr>
<tr>
<td>PHYS 1250</td>
<td>Stellar Structure and the Interstellar Medium</td>
</tr>
<tr>
<td>PHYS 1270</td>
<td>Extragalactic Astronomy and High-Energy Astrophysics</td>
</tr>
<tr>
<td>PHYS 1280</td>
<td>Introduction to Cosmology</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>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 1670</td>
<td>Statistical Analysis of Time Series</td>
</tr>
<tr>
<td>ENGN 1860</td>
<td>Advanced Fluid Mechanics</td>
</tr>
<tr>
<td>GEOL 0810</td>
<td>Planetary Geology</td>
</tr>
<tr>
<td>GEOL 1710</td>
<td>Remote Sensing of Earth and Planetary Surfaces</td>
</tr>
<tr>
<td>GEOL 1810</td>
<td>Physics of Planetary Evolution</td>
</tr>
<tr>
<td>MATH 1060</td>
<td>Differential Geometry</td>
</tr>
<tr>
<td>PHYS 0500</td>
<td>Advanced Classical Mechanics</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 1510</td>
<td>Advanced Electromagnetic Theory</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
</tr>
<tr>
<td>PHYS 1560</td>
<td>Modern Physics Laboratory</td>
</tr>
</tbody>
</table>

**Biochemistry & Molecular Biology**

How does life work at the molecular level? This question is at the core of the concentration program Biochemistry and Molecular Biology. In earlier years of this discipline, the focus was on structure and function of proteins, nucleic acids, lipids, carbohydrates and small molecules such as vitamins. Today the logical approach and tools of biochemical science are being expanded to new areas in neuroscience, developmental biology, immunology, pharmacology and synthetic biology (the design of analogs of biological systems). Training in biochemistry begins with a foundation in mathematics, physics, chemistry and biology. Some courses offered in other departments, including engineering, geology and computer science, are also useful. A key component of this program is the year of hands-on research carried out in collaboration with a faculty member here at Brown. Faculty sponsors are drawn from both the Chemistry Department and the Division of Biology and Medicine, and include basic science and clinical faculty.

**Standard program for the Sc.B. degree**

Students must take twenty courses in biology, chemistry, mathematics, and physics, including the following core requirements, some of these may be fulfilled with AP credits. Students are expected to take courses that will count toward the concentration ABC/NC. Students should discuss the S/NC option with their concentration advisor if circumstances warrant consideration. Students should not register S/NC for a concentration course without advisor pre-approval.

Three courses in mathematics, statistics and/or computer science, typically including MATH 0090, MATH 0100, or equivalent) 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics A</td>
</tr>
<tr>
<td>or PHYS 0050</td>
<td>Foundations of Mechanics</td>
</tr>
</tbody>
</table>

Two courses in physics, typically: 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>MATH 0540</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
</tbody>
</table>
Biology Electives:
- Biology from the suggested courses below:
  - Three courses in physical and organic chemistry: 3
    - CHEM 0330: Equilibrium, Rate, and Structure
    - CHEM 0350/0360: Organic Chemistry
    - One course in biophysical or related chemistry: 1
      - CHEM 0500: Inorganic Chemistry
    - or
      - GEOL 1660: Instrumental Analysis with Environmental Applications
  - Three courses in biochemistry: 3
    - BIOL 0280: Biochemistry
    - BIOL 1270: Advanced Biochemistry
    - CHEM 1230: Chemical Biology
    - or CHEM 1240: Biochemistry
  - Select two semester courses of independent research approved by a concentration advisor: 2
    - BIOL 1950/1960: Directed Research/Independent Study
    - or
    - CHEM 0970/0980: Undergraduate Research

Suggested Elective Courses:
Students are required to take six (6) elective courses: four (4) taken from the chart below and two (2) from any science or mathematics course relevant to biochemistry, cell and molecular biology from the suggested courses below:

Biology Electives:
- BIOL 0200: The Foundation of Living Systems
- BIOL 0380: The Ecology and Evolution of Infectious Disease
- BIOL 0415: Microbes in the Environment
- BIOL 0470: Genetics
- BIOL 0500: Cell and Molecular Biology
- BIOL 0530: Principles of Immunology
- BIOL 0800: Principles of Physiology
- BIOL 1050: Biology of the Eukaryotic Cell
- BIOL 1090: Polymer Science for Biomaterials
- BIOL 1100: Cell Physiology and Biophysics
- BIOL 1110: Topics in Signal Transduction
- BIOL 1200: Protein Biophysics and Structure
- BIOL 1210: Synthetic Biological Systems
- BIOL 1260: Physiological Pharmacology
- BIOL 1290: Cancer Biology
- BIOL 1310: Developmental Biology
- BIOL 1330: Biology of Reproduction
- BIOL 1520: Innate Immunity
- BIOL 1540: Molecular Genetics
- BIOL 1560: Virology
- BIOL 1600: Development of Vaccines to Infectious Diseases
- BIOL 2110: Drug and Gene Delivery

Neuroscience Electives: 2
- NEUR 0010: The Brain: An Introduction to Neuroscience
- NEUR 0650: Biology of Hearing
- NEUR 1020: Principles of Neurobiology
- NEUR 1040: Introduction to Neurogenetics

NEUR 1670: Neuropharmacology and Synaptic Transmission

Chemistry Electives:
- CHEM 0500: Inorganic Chemistry
- CHEM 1140: Physical Chemistry: Quantum Chemistry
- CHEM 1150: Physical Chemistry: Thermodynamics and Statistical Mechanics
- CHEM 1220: Computational Tools in Biochemistry and Chemical Biology
- CHEM 1230: Chemical Biology
- CHEM 1240: Biochemistry
- CHEM 1450: Advanced Organic Chemistry

Computer Science Electives:
- CSCI 1810: Computational Molecular Biology

Quantitative Science or Mathematics Electives: 2
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.

Total Credits: 20

- Note that the mathematics and physics requirements may be satisfied by Advanced Placement credit.
- or any NEUR course in Cell, Genetics, Molecular Biology, or Development.

Honors Requirements for Biochemistry

All ScB Biochemistry concentrators are candidates for Honors; no separate application is necessary.

The requirements for Honors in Biochemistry are:
- * A strong grade record in concentration courses. This means a grade point average for the concentration that is higher than 3.25.
- * Two semesters of Independent Study (CHEM 0970, CHEM 0980 or equivalent. Guidelines and requirements associated with Independent Study are in the Undergraduate Concentration Handbook which can be found at the department website (http://www.brown.edu/academics/chemistry/undergraduate).
- * A Thesis in a form approved by the research advisor, and recommended by the research advisor. Additional information about thesis guidelines will be provided by the Concentration Advisor in the first half of the fall semester.

Biology

The Biology concentration invites students to study, in depth and in breadth, the science of life and living matter. Whether pursuing the Bachelor of Arts (A.B.) or Science (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 track through which they gain an in-depth understanding of a particular subfield (such as, Immunopathology, Ecology and Evolutionary Biology; Physiology/Biotechnology; Cell and Molecular Biology; Physical Sciences. The concentration also emphasizes practical skills and experimental design. Concentrators are required to take at least 3 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, chemistry, and a statistics course as well as ten courses in biological sciences, including at least one course in each of the following three areas: Area 1: Cell/Molecular Biology; Area 2: Structure/Function, and Area 3: Organismal Biology.
Prerequisites:  
CHEM 0330  Equilibrium, Rate, and Structure  
CHEM 0350  Organic Chemistry  
MATH 0090  Introductory Calculus, Part I (or placement. MATH 0050/MATH 0060 may be substituted for MATH 0090.)  

One of the following:  
MATH 0100  Introductory Calculus, Part II (or placement)  
MATH 0170  Advanced Placement Calculus (or equivalent placement)  

Or a statistics course, to be approved by the concentration advisor.  

Ten Core Courses:  

BIOL 0200  The Foundation of Living Systems (Required course; AP credit or similar IB or A-levels accepted, placement test available.)  

The Area requirement must be fulfilled by taking at least one course in each of these groups:  

Area 1 (Cell/Molecular Biology)  
BIOL 0280  Biochemistry  
BIOL 0470  Genetics  
BIOL 0500  Cell and Molecular Biology  
BIOL 0510  Introductory Microbiology  
BIOL 0530  Principles of Immunology  
BIOL 1050  Biology of the Eukaryotic Cell  
BIOL 1310  Developmental Biology  
NEUR 1020  Principles of Neurobiology  

Area 2 (Structure/Function)  
BIOL 0400  Biological Design: Structural Architecture of Organisms  
BIOL 0410  Invertebrate Zoology  
BIOL 0440  Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction and Adaptive Responses  
BIOL 0800  Principles of Physiology  
BIOL 1120  Biomaterials  
BIOL 1310  Developmental Biology  
BIOL 1330  Biology of Reproduction  
BIOL 1880  Comparative Biology of the Vertebrates  
NEUR 0010  The Brain: An Introduction to Neuroscience  

Area 3 (Organismal Biology)  
BIOL 0140K  Conservation Medicine  
BIOL 0210  Diversity of Life  
BIOL 0350  The Fossil Record: Life through Time on Earth  
BIOL 0380  The Ecology and Evolution of Infectious Disease  
BIOL 0410  Invertebrate Zoology  
BIOL 0415  Microbes in the Environment  
BIOL 0420  Principles of Ecology  
BIOL 0430  The Evolution of Plant Diversity  
BIOL 0480  Evolutionary Biology  
BIOL 1880  Comparative Biology of the Vertebrates  
ENVS 0490  Environmental Science in a Changing World  

Six additional courses chosen from BIOL and/or NEUR offerings for concentrators. At least two at the advanced (1000-2099) level. The Core may include up to two related sciences, with advisor approval.  

Total Credits: 10  

1 AP scores of 4 or above may substitute Math courses.  
2 At least two biology and/or neuroscience courses must be at the advanced level (between 1000-2999). EXCLUSIONS: BIOL 0920 series courses, BIOL 1070, & BIOL 1920 series courses. *Courses numbered below BIOL 0100 do not carry concentration credit. At least three of the Biology and/or Neuroscience courses must include laboratory or fieldwork. BIOL 1950/BIOL 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 Biology courses for concentration credit include those numbered greater than 0100 with some exceptions noted within the course descriptions. Courses numbered over 3000 do not count towards Undergraduate requirements either quantity or for concentration.  

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 and information on faculty research are available in the Office of Biology Undergraduate Education or found at http://www.brown.edu/academics/biology/undergraduate-education/.  

Standard Program for the Sc.B. Biology  
The concentration program for the Sc.B. in Biology consists of seven prerequisite courses in math, chemistry, and physics as well as thirteen to fourteen 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 the three-course Track. The biological sciences requirement also requires research (BIOL 1950/BIOL 1960), which should reflect the advanced cluster. Students pursuing a ScB in Biology have the option to substitute a course for CHEM 0360 (Organic Chemistry) in their background core. For students pursuing the Marine Biology track, an upper level course in Geological Sciences may replace CHEM 0360. For students pursuing all other tracks, BIOL 0280 (Introductory Biochemistry) may serve as the replacement course. Please note that approval from the concentration advisor is required for these background course substitutions. If the student has already declared, then a revised concentration plan must be submitted and approved via the ASK system. If BIOL 0280 is used as a substitute for CHEM 0360, it cannot be counted as a core course, as a laboratory course, or as an Area 1 course. Students planning to apply to medical or graduate school should seek additional advising (such as from the Health Careers Office) in crafting their course plan.  

Prerequisites:  
MATH 0090  Introductory Calculus, Part I (or placement. MATH 0050/MATH 0060 may be substituted for MATH 0090)  
MATH 0100  Introductory Calculus, Part II or MATH 0170  Advanced Placement Calculus  
CHEM 0330  Equilibrium, Rate, and Structure (or IB credit)  
CHEM 0350  Organic Chemistry  
CHEM 0360  Organic Chemistry or BIOL 0280  Biochemistry  
PHYS 0030  Basic Physics A (or equivalent. PHYS 0050 or ENGN 0030 may be substituted for PHYS 0030.)
PHYS 0040  Basic Physics B (or equivalent. PHYS 0060 or ENGN 0040 may be substituted for PHYS 0040.)

Core Courses:  2, 3

BIOL 0200  The Foundation of Living Systems (or placement)  1

The Area requirement must be fulfilled by taking at least one course in each of these groups:

**Area 1 (Cell/Molecular Biology)**
- BIOL 0280  Biochemistry
- BIOL 0470  Genetics
- BIOL 0500  Cell and Molecular Biology
- BIOL 0510  Introductory Microbiology
- BIOL 0530  Principles of Immunology
- BIOL 1050  Biology of the Eukaryotic Cell
- BIOL 1310  Developmental Biology
- NEUR 1020  Principles of Neurobiology

**Area 2 (Structure/Function)**
- BIOL 0400  Biological Design: Structural Architecture of Organisms
- BIOL 0410  Invertebrate Zoology
- BIOL 0440  Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction and Adaptive Responses
- BIOL 0800  Principles of Physiology
- BIOL 1120  Biomaterials
- BIOL 1310  Developmental Biology
- BIOL 1330  Biology of Reproduction
- BIOL 1880  Comparative Biology of the Vertebrates
- NEUR 0010  The Brain: An Introduction to Neuroscience

**Area 3 (Organismal Biology)**
- BIOL 0140K  Conservation Medicine
- BIOL 0210  Diversity of Life
- BIOL 0350  The Fossil Record: Life through Time on Earth
- BIOL 0370 - Experimental Evolution
- BIOL 0410  Invertebrate Zoology
- BIOL 0415  Microbes in the Environment
- BIOL 0420  Principles of Ecology
- BIOL 0430  The Evolution of Plant Diversity
- BIOL 0480  Evolutionary Biology
- BIOL 1880  Comparative Biology of the Vertebrates
- ENVS 0490  Environmental Science in a Changing World

Five additional courses chosen from BIOL and/or NEUR offerings for concentrators. Alternatively, students may include up to two related (non-BIOL/NEUR) courses suitable for science concentrators.  

1 AP scores of 4 or 5 may substitute Math courses.
2 At least two biology and/or neuroscience courses numbered at the 1000 or 2000 level. EXCLUSIONS: BIOL 0920 series courses, BIOL 1070, or BIOL 1920 series courses. *Courses numbered below BIOL 0100 do not carry concentration credit. At least three of the biology and/or neuroscience courses must include laboratory or fieldwork. No substitutions per above Area lists. 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.
3 Biology courses for concentration credit include those numbered greater than 0100 with some exceptions noted within the course descriptions. Courses numbered over 3000 do not count towards Undergraduate requirements either quantity or for concentration.
4 See listing at http://biology.brown.edu/bug/ for options. Related sciences must be above prerequisite level, and suitable for science concentrators.
5 If substantial research is carried out away from Brown, it must be approved by an appropriate Brown BioMed faculty member but does not carry course credit toward the Core program.
6 At least two, and preferably all three, must be above 1000-level. Courses used for the cluster, must be approved by an advisor and/or Associate Dean of Biology, Katherine Smith.

**Honors:** Honors in biology requires a thesis and presentation based on a research project (usually conducted via BIOL 1950/BIOL 1960), and quality grades in the concentration. Guidelines and information on faculty research are available in the Office of Biology Undergraduate Education or at http://www.brown.edu/academics/biology/undergraduate-education/.

**Stipulations for Biology Programs:**
1. For double concentrations, no more than two courses may overlap (i.e., be used to meet requirements of both programs).
2. No more than two semesters of directed research may be used as concentration credits. Each does count as an individual core towards the program, but only carry one lab credit towards the three required.
3. A limited number of transfer or study abroad courses may be used within the program, subject to approval of advisor, and Associate Dean of Biology, Katherine Smith.

**Biomedical Engineering**

The Sc.B. program in Biomedical Engineering is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org/. It is jointly offered by the School of Engineering and the Division of Biology and Medicine as an interdisciplinary concentration designed for students interested in applying the methods and tools of engineering to the subject matter of biology and the life sciences. The education objectives of the Biomedical Engineering program are to prepare graduates: (1) to be employed in careers of useful service to society, including scientific and technical areas within medicine, industry, and health care delivery; (2) to demonstrate the ability to apply the basic principles of engineering and science, as well as problem solving skills and critical thinking, to a broad spectrum of biomedical engineering problems; (3) to demonstrate their ability to work in teams, and to effectively communicate and understand the broad social, ethical, economic and environmental consequences of their lifelong education. The student outcomes of this program are the (a) - (k) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs (available online at http://www.abet.org/ accreditation-criteria-policies-documents/)." The Biomedical Engineering concentration shares much of the core with the other engineering programs, but is structured to include more courses in biology and chemistry, and a somewhat different emphasis in mathematics.

The requirements regarding Mathematics, Advanced Placement, Transfer Credit, Substitutions for Required Courses, and Humanities and Social Science Courses are identical to those of the Sc.B. degree programs in Engineering. Please refer to the Engineering section of the University Bulletin for explicit guidelines.

The Biomedical Engineering concentration shares much of the core with the other engineering programs, but is structured to include more
Standard program for the Sc.B. degree

1. Core Courses

- ENGN 0030: Introduction to Engineering (1 credit)
- or ENGN 0031: Honors Introduction to Engineering (1 credit)
- ENGN 0040: Dynamics and Vibrations (1 credit)
- or ENGN 0510: Electricity and Magnetism (1 credit)
- ENGN 0520: Electrical Circuits and Signals (1 credit)
- ENGN 0720: Thermodynamics (1 credit)
- ENGN 0810: Fluid Mechanics (1 credit)
- CHEM 0330: Equilibrium, Rate, and Structure (1 credit)
- CHEM 0350: Organic Chemistry (1 credit)
- MATH 0190: Advanced Placement Calculus (Physics/Engineering) (1 credit)
- or MATH 0170: Advanced Placement Calculus (1 credit)
- or MATH 0100: Introduction to Calculus, Part II (1 credit)
- MATH 0200: Intermediate Calculus (Physics/Engineering) (1 credit)
- or MATH 0180: Intermediate Calculus (1 credit)
- or MATH 0350: Honors Calculus (1 credit)
- APMA 0330: Methods of Applied Mathematics I, II (1 credit)
- or APMA 0350: Applied Ordinary Differential Equations (1 credit)
- APMA 1650: Statistical Inference I (1 credit)
- or APMA 0650: Essential Statistics (1 credit)
- or BIOL 0200: The Foundation of Living Systems (1 credit)

2. Upper Level Biomedical Engineering Curriculum

- ENGN 1110: Transport and Biotransport Processes (1 credit)
- ENGN 1210: Biomechanics (1 credit)
- ENGN 1230: Instrumentation Design (1 credit)
- ENGN 1490: Biomaterials (1 credit)
- BIOL 0800: Principles of Physiology (1 credit)

3. Additional Biomedical Engineering Electives (Complete at least 3 courses from the following groups):

   Select one or two of the following:
   - ENGN 1220: Neuroengineering
   - ENGN 1510: Nanoengineering and Nanomedicine
   - ENGN 1520: Cardiovascular Engineering
   - ENGN 1930B: Biomedical Optics
   - ENGN 1930M: Industrial Design
   - ENGN 1931K: Cell-Material Interactions in Tissue Engineering
   - BIOL 1140: Tissue Engineering
   - ENGN 2910S: Cancer Nanotechnology
   - ENGN 2912R: Implantable Devices
   - CSCI 1820: Algorithmic Foundations of Computational Biology

   At least one or two more courses from:
   - CHEM 0360: Organic Chemistry
   - BIOL 0280: Biochemistry
   - BIOL 0470: Genetics
   - BIOL 0500: Cell and Molecular Biology
   - BIOL 0510: Introductory Microbiology
   - BIOL 0530: Principles of Immunology
   - BIOL 1090: Polymer Science for Biomaterials
   - BIOL 1100: Cell Physiology and Biophysics
   - BIOL 1150: Stem Cell Engineering
   - BIOL 1555: Methods in Informatics and Data Science for Health

4. Capstone Design

- ENGN 1930L: Biomedical Engineering Design, Research and Modeling (1 credit)
- ENGN 1931L: Biomedical Engineering Design II (1 credit)

5. General Education Requirement: At least four approved courses must be taken in the humanities and social sciences.

| Total Credits | 21 |

1. If BIOL 0200 is counted, a statistics module must be completed in ENGN 1930L or other courses
2. At most one of these two courses may be counted.
3. In some cases, Independent Study may be substituted subject to Concentration Advisor approval

Biophysics

Biophysics is a quantitative science that requires a significant level of competence in physics, chemistry, mathematics, and biology. These areas therefore form the required background coursework for this program, and serve as a springboard to an advanced focus, developed in consultation with a concentration advisor. Advanced foci may include structure-function relations of macromolecules, biomechanics of cell cytoskeleton, biotechnology for drug and gene delivery, molecular mechanisms of membrane transport, sensory signal transduction, for examples. The program also requires a project that reflects this focus and may be drawn from collaborative research opportunities offered by faculty in biology, chemistry, or physics departments.

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:

- 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
- PHYS 0470: Electricity and Magnetism (1 credit)
- CHEM 0330: Equilibrium, Rate, and Structure (1 credit)
- CHEM 0350: Organic Chemistry (1 credit)
- CHEM 0360: Organic Chemistry (1 credit)

Select one of the following:

- CHEM 1140: Physical Chemistry: Quantum Chemistry
- PHYS 1530: Thermodynamics and Statistical Mechanics
- PHYS 1610: Biological Physics
- MATH 0100: Introductory Calculus, Part II (or equivalent)
- MATH 0180: Intermediate Calculus (or equivalent)
- BIOL 0200: The Foundation of Living Systems
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 multidisciplinary learning by working in groups on real world projects, including the creation of new ventures. BEO students interested in the theory and practice of addressing social challenges might consider the Engaged Scholars Program (https://www.brown.edu/academics/college/special-programs/public-service/engaged-scholars-program/engaged-scholars-program).

The three tracks of the concentration are as follows:
1. Business Economics
2. Organizational Studies
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
(Effective beginning with the graduating class of 2021)

Foundation Requirements (foundation requirements must be completed before taking the capstone in fall of senior year)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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 Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 0170</td>
<td>Essential Mathematics for Economics</td>
<td>1</td>
</tr>
</tbody>
</table>

Or AP BC Calculus score of 4 or higher
Or IB High-level Math minimum score of 5 (IB Standard-level not accepted)

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
<td>1</td>
</tr>
</tbody>
</table>

Track Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0710</td>
<td>Financial Accounting</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1710</td>
<td>Investments I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1720</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
</tbody>
</table>

One Data Methods-intensive course from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1301</td>
<td>Economics of Education I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1305</td>
<td>Economics of Education: Research</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1310</td>
<td>Labor Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1355</td>
<td>Environmental Issues in Development Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1360</td>
<td>Health Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1375</td>
<td>Inequality of Opportunity in the US</td>
<td>1</td>
</tr>
</tbody>
</table>
ECON 1400  The Economics of Mass Media
ECON 1420  Urbanization in China
ECON 1480  Public Economics
ECON 1510  Economic Development
ECON 1520  The Economic Analysis of Institutions
ECON 1530  Health, Hunger and the Household in Developing Countries
ECON 1629  Applied Research Methods for Economists
ECON 1630  Econometrics I
ECON 1640  Econometrics II
ECON 1650  Financial Econometrics
ECON 1660  Big Data
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 1
Capstone: one-semester required (must be taken fall of senior year) 1
BEO 1930C  BEO Capstone I: Business Economics Track

Total Credits 15

(Effective for graduating classes through 2020)

Foundation Requirements (foundation requirements must be completed before taking the capstone in fall of senior year)
ECON 0110  Principles of Economics 1
ECON 1110  Intermediate Microeconomics 1
SOC 1311  Micro-Organizational Theory: Social Behavior in Organizations 1
SOC 1315  Macro-Organizational Theory: Organizations in Social Context 1
ENGN 0020  Transforming Society-Technology and Choices for the Future 1
or ENGN 0030  Introduction to Engineering 1
ENGN 1010  The Entrepreneurial Process: Innovation in Practice 1

Math and Statistics Requirements
MATH 0090  Introductory Calculus, Part I 1
ECON 1620  Introduction to Econometrics 1

Track Requirements
ECON 0710  Financial Accounting 1
ECON 1210  Intermediate Macroeconomics 1
ECON 1710  Investments I 1
ECON 1720  Corporate Finance 1

One Data Methods-intensive course from the following list: 1
ECON 1301  Economics of Education I
ECON 1305  Economics of Education: Research
ECON 1310  Labor Economics
ECON 1355  Environmental Issues in Development Economics
ECON 1360  Health Economics
ECON 1375  Inequality of Opportunity in the US
ECON 1400  The Economics of Mass Media
ECON 1420  Urbanization in China
ECON 1480  Public Economics
ECON 1510  Economic Development
ECON 1520  The Economic Analysis of Institutions

ECON 1530  Health, Hunger and the Household in Developing Countries
ECON 1629  Applied Research Methods for Economists
ECON 1630  Econometrics I
ECON 1640  Econometrics II
ECON 1650  Financial Econometrics
ECON 1660  Big Data
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 1
Capstone: one-semester required (must be taken fall of senior year) 1
BEO 1930C  BEO Capstone I: Business Economics Track

Total Credits 15

Or an optional two-semester capstone from the BEO 1930 and 1940 series
* Not all ECON courses listed here are offered every semester or every academic year, please check Courses@Brown for current academic year course listings.

Organizational Studies Track
(Effective beginning with the graduating class of 2021)

Foundation Requirements (foundation requirements must be completed before taking the capstone in fall of senior year)
ECON 0110  Principles of Economics 1
ECON 1110  Intermediate Microeconomics 1
SOC 1311  Micro-Organizational Theory: Social Behavior in Organizations 1
SOC 1315  Macro-Organizational Theory: Organizations in Social Context 1
ENGN 0020  Transforming Society-Technology and Choices for the Future 1
or ENGN 0030  Introduction to Engineering 1
ENGN 1010  The Entrepreneurial Process: Innovation in Practice 1

Math and Statistics Requirements
MATH 0100  Introductory Calculus, Part II 1
or MATH 0170  Advanced Placement Calculus
or ECON 0170  Essential Mathematics for Economics
or AP BC Calculus with a score of 4 or higher
or IB High-level Math with a minimum score of 5 (IB Standard-level is not accepted)
SOC 1100  Introductory Statistics for Social Research 1
or APMA 0650  Essential Statistics
or ECON 1620  Introduction to Econometrics

Track Requirements
One Introduction to Research Methods course (selected from the following): 1
SOC 1020  Methods of Social Research
SOC 1050  Methods of Research in Organizations

Two Organization-Relevant Electives (OREs) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):
ORE courses allow students to deepen and/or broaden their exposure to topics and settings that are either strongly determined by, or strongly determining of, organizational activities and outcomes. To qualify for this list, a course should have a clear linkage to commerce, organizations and/or entrepreneurship, and it should incorporate organizational phenomena and perspectives into a significant portion of its coursework.

Any from the Advanced Research Methods or Advanced Organization-Studies lists; or

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 1610A</td>
<td>American Advertising: History and Consequences</td>
</tr>
<tr>
<td>ECON 1760</td>
<td>Financial Institutions</td>
</tr>
<tr>
<td>EDUC 1020</td>
<td>The History of American Education</td>
</tr>
<tr>
<td>EDUC 1040</td>
<td>Sociology of Education</td>
</tr>
<tr>
<td>EDUC 1060</td>
<td>Politics and Public Education</td>
</tr>
<tr>
<td>EDUC 1150</td>
<td>Education, the Economy and School Reform</td>
</tr>
<tr>
<td>EDUC 1200</td>
<td>History of American School Reform</td>
</tr>
<tr>
<td>EDUC 1650</td>
<td>Policy Implementation in Education</td>
</tr>
<tr>
<td>EDUC 1730</td>
<td>American Higher Education in Historical Context</td>
</tr>
<tr>
<td>ENGN 1930S</td>
<td>Land Use and Built Environment: An Entrepreneurial View</td>
</tr>
<tr>
<td>ETHN 1890C</td>
<td>Business, Culture, and Globalization: An Ethnographic Perspective</td>
</tr>
<tr>
<td>PHP 2400</td>
<td>The U.S. Health Care System: Case Studies in Financing, Delivery, Regulation and Public Health</td>
</tr>
<tr>
<td>PLCY 1700R</td>
<td>Urban Revitalization: Lessons from the Providence Plan</td>
</tr>
<tr>
<td>PLCY 1701J</td>
<td>Policy Implementation</td>
</tr>
<tr>
<td>PLCY 1701K</td>
<td>Governance in the Academy: A University at Work in the 21st Century</td>
</tr>
<tr>
<td>PLCY 1701O</td>
<td>Labor Market Policy</td>
</tr>
<tr>
<td>PLCY 1701Q</td>
<td>Leading Social Ventures - Social Entrepreneurship in Action</td>
</tr>
<tr>
<td>PLCY 1800</td>
<td>Investigating Modes of Social Change</td>
</tr>
<tr>
<td>PLCY 1910</td>
<td>Social Entrepreneurship</td>
</tr>
<tr>
<td>PLCY 2150</td>
<td>Strategic Communication</td>
</tr>
<tr>
<td>PLCY 2555</td>
<td>Regulation and Compliance</td>
</tr>
<tr>
<td>POLS 1150</td>
<td>Prosperity: The Ethics and Economics of Wealth Creation</td>
</tr>
<tr>
<td>POLS 1240</td>
<td>Politics, Markets and States in Developing Countries</td>
</tr>
<tr>
<td>POLS 1820W</td>
<td>Market Liberalism: Origins, Principles and Contemporary Applications</td>
</tr>
<tr>
<td>SOC 1114</td>
<td>Law and Society</td>
</tr>
<tr>
<td>SOC 1115</td>
<td>The Enlightened Entrepreneur: Changemakers, Inspired Protagonists and Unreasonable People</td>
</tr>
<tr>
<td>SOC 1871C</td>
<td>Sociology of the Legal Profession</td>
</tr>
</tbody>
</table>

One Advanced Organization Studies course (AOS) (the following are approved EXAMPLES-please consult with Courses@Brown/BEO website for current offerings):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1110</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>ECON 1790</td>
<td>Corporate Governance and Management</td>
</tr>
<tr>
<td>MPA 2020</td>
<td>Public Budgeting and Management</td>
</tr>
<tr>
<td>PLCY 1700V</td>
<td>Nonprofit Organizations</td>
</tr>
<tr>
<td>PLCY 1700Y</td>
<td>Crisis Management</td>
</tr>
<tr>
<td>PLCY 2350</td>
<td>Thinking, Planning and Acting Strategically</td>
</tr>
<tr>
<td>PLCY 2550</td>
<td>Managing and Leading in Public Affairs</td>
</tr>
<tr>
<td>PLCY 2700</td>
<td>Advanced Organizational and Management Strategies</td>
</tr>
<tr>
<td>SOC 1060</td>
<td>Leadership in Organizations</td>
</tr>
<tr>
<td>SOC 1870A</td>
<td>Investing in Social Change</td>
</tr>
<tr>
<td>SOC 1870L</td>
<td>The Economic Foundations of Everyday Life</td>
</tr>
<tr>
<td>SOC 1871O</td>
<td>Law, Innovation and Entrepreneurship</td>
</tr>
<tr>
<td>SOC 1872B</td>
<td>Sociology of Money</td>
</tr>
<tr>
<td>SOC 1872H</td>
<td>Sociology of FIRE: Finance, Insurance, + Real Estate</td>
</tr>
<tr>
<td>SOC 1872T</td>
<td>Social Innovation and Disruption: The Case of Modern Turkey</td>
</tr>
</tbody>
</table>

One Advanced Research Methods course (ARM) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1940</td>
<td>Ethnographic Research Methods</td>
</tr>
<tr>
<td>ECON 1390</td>
<td>Research Methods for Economists</td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Econometrics I</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
<tr>
<td>EDUC 1160</td>
<td>Evaluating the Impact of Social Programs</td>
</tr>
<tr>
<td>PHP 1320</td>
<td>Survey Research in Health Care</td>
</tr>
<tr>
<td>PLCY 1200</td>
<td>Program Evaluation</td>
</tr>
<tr>
<td>MPA 2035</td>
<td>Statistics II for Public Policy Analysis</td>
</tr>
<tr>
<td>MPA 2040</td>
<td>Policy Analysis and Program Evaluation</td>
</tr>
<tr>
<td>PLCY 2050</td>
<td>Program Evaluation</td>
</tr>
<tr>
<td>SOC 1117</td>
<td>Focus Groups for Market and Social Research</td>
</tr>
<tr>
<td>SOC 1118</td>
<td>Context Research for Innovation</td>
</tr>
<tr>
<td>SOC 1120</td>
<td>Market and Social Surveys</td>
</tr>
<tr>
<td>SOC 1127</td>
<td>EPIC: Ethnographic Praxis in Industry</td>
</tr>
<tr>
<td>SOC 1260</td>
<td>Market Research in Public and Private Sectors</td>
</tr>
<tr>
<td>SOC 1340</td>
<td>Principles and Methods of Geographic Information Systems</td>
</tr>
</tbody>
</table>

Capstone: two-semesters required 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEO 1930A</td>
<td>BEO Capstone I: Organizational Studies &amp; BEO 1940A Track</td>
</tr>
<tr>
<td>BEO 1940A</td>
<td>BEO Capstone II: Organizational Studies Track</td>
</tr>
</tbody>
</table>

Total Credits 15

1 If a student in the Organizational Studies track completes only the fall semester of the capstone course (BEO 1930A), she/he must take one additional ARM or AOS course.

**Organizational Studies Track**

(Effective for graduating classes through 2020)

**Foundation Requirements** (foundation requirements must be completed before taking the capstone in fall of senior year)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
</tr>
</tbody>
</table>
One Introduction to Research Methods course (selected from the following):  
SOC 1020  Methods of Social Research  
SOC 1050  Methods of Research in Organizations

Two Organization-Relevant Electives (OREs) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):  
ORE courses allow students to deepen and/or broaden their exposure to topics and settings that are either strongly determined by, or strongly determining of, organizational activities and outcomes. To qualify for this list, a course should have a clear linkage to commerce, organizations and/or entrepreneurial, and it should incorporate organizational phenomena and perspectives into a significant portion of its coursework.

Any from the Advanced Research Methods or Advanced Organization-Studies lists; or  
AMST 1610A  American Advertising: History and Consequences  
ECON 1760  Financial Institutions  
EDUC 1020  The History of American Education  
EDUC 1040  Sociology of Education  
EDUC 1060  Politics and Public 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  
ENGN 1930S  Land Use and Built Environment: An Entrepreneurial View  
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  
PLCY 1700R  Urban Revitalization: Lessons from the Providence Plan  
PLCY 1701J  Policy Implementation  
PLCY 1701K  Governance in the Academy: A University at Work in the 21st Century  
PLCY 1701O  Labor Market Policy  
PLCY 1701Q  Leading Social Ventures - Social Entrepreneurship in Action  
PLCY 1800  Investigating Modes of Social Change  
PLCY 1910  Social Entrepreneurship  
PLCY 2150  Strategic Communication  
PLCY 2655  Regulation and Compliance

One Advanced Organization Studies course (AOS) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):  
AOS courses directly employ and extend the theories and perspectives introduced by the foundational Organizational Studies courses. They are either taught by core Organization Studies faculty or vetted on a regular basis by the Organization Studies track advisor, to ensure that they thoroughly incorporate Organization Studies perspectives and focus primarily on organizational processes and phenomena.

CLPS 1730  Psychology in Business and Economics  
ECON 1790  Corporate Governance and Management  
PLCY 1700V  Nonprofit Organizations  
PLCY 1700Y  Crisis Management  
MPA 2020  Public Budgeting and Management  
PLCY 2350  Thinking, Planning and Acting Strategically  
PLCY 2550  Managing and Leading in Public Affairs  
PLCY 2700  Advanced Organizational and Management Strategies  
SOC 1060  Leadership in Organizations  
SOC 1870A  Investing in Social Change  
SOC 1870L  The Economic Foundations of Everyday Life  
SOC 1871O  Law, Innovation and Entrepreneurship  
SOC 1872B  Sociology of Money  
SOC 1872H  Sociology of FIRE: Finance, Insurance, + Real Estate  
SOC 1872T  Social Innovation and Disruption: The Case of Modern Turkey

One Advanced Research Methods course (ARM) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):  
ARM courses allow students to deepen and/or broaden their expertise in one or more methods of empirical inquiry.

ANTH 1940  Ethnographic Research Methods  
ECON 1390  Research Methods for Economists  
ECON 1630  Econometrics I  
EDUC 1100  Introduction to Qualitative Research Methods  
EDUC 1160  Evaluating the Impact of Social Programs  
PHP 1320  Survey Research in Health Care  
PLCY 1200  Program Evaluation  
MPA 2035  Statistics II for Public Policy Analysis  
MPA 2040  Policy Analysis and Program Evaluation  
PLCY 2050  Program Evaluation  
SOC 1117  Focus Groups for Market and Social Research  
SOC 1118  Context Research for Innovation  
SOC 1120  Market and Social Surveys  
SOC 1127  EPIC: Ethnographic Praxis in Industry
SOC 1260  Market Research in Public and Private Sectors
SOC 1340  Principles and Methods of Geographic Information Systems

Capstone:  1-2

For the class graduating 2018: one-semester required (must be taken fall of senior year) 1
BEO 1930A  BEO Capstone I: Organizational Studies Track

For the classes graduating 2019 and 2020: two semesters required
BEO 1930A & BEO 1940A  BEO Capstone I: Organizational Studies Track and BEO Capstone II: Organizational Studies Track

Total Credits  14-15

1 Or an optional two-semester capstone from the BEO 1930 and 1940 series

Entrepreneurship and Technology Management Track

Foundation Requirements (foundation requirements must be completed before taking the capstone in fall of senior year)
ECON 0110  Principles of Economics  1
ECON 1110  Intermediate Microeconomics  1
SOC 1311  Micro-Organizational Theory: Social Behavior in Organizations  1
SOC 1315  Macro-Organizational Theory: Organizations in Social Context  1
ENGN 0030  Introduction to Engineering  1
ENGN 1010  The Entrepreneurial Process: Innovation in Practice  1

Math and Statistics Requirements
MATH 0200  Intermediate Calculus (Physics/Engineering)  1
or APMA 0330  Methods of Applied Mathematics I, II
SOC 1100  Introductory Statistics for Social Research  1
or APMA 0650  Essential Statistics
or ENGN 1620  Introduction to Econometrics

Track Requirements
One gateway course in Engineering or another physical science  1
Five courses that develop expertise in a technical subfield 1, 2  5
Capstone: two-semesters required (must be taken in fall and spring of senior year)
BEO 1930B  BEO Capstone I: Entrepreneurship and Technology Management Track
BEO 1940B  BEO Capstone II: Entrepreneurship and Technology Management Track

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.

Honors Requirements for Chemical Physics

All ScB Chemical Physics concentrators who complete the following requirements are candidates for Honors; no separate application is necessary.

The requirements for Honors in Chemical Physics are:

* A strong grade record in concentration courses. This means a grade point average for the concentration that is higher than 3.50.
* Two semesters of Independent Study (CHEM 0970, CHEM 0980, PHYS 1990 or equivalent). Guidelines and requirements associated with Independent Study are in the Undergraduate Concentration Handbook which can be found at the department website (http://www.brown.edu/academics/chemistry/undergraduate).
* A Thesis in a form approved by the research advisor, and recommended by the research advisor. Additional information about thesis guidelines will be provided by the Concentration Advisor in the first half of the fall semester.

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 in both departments.

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. The expectation is that courses required for a concentration in Chemical Physics will be taken for a letter grade. Core courses are:

CHEM 0330  Equilibrium, Rate, and Structure  1
CHEM 0350  Organic Chemistry  1
CHEM 0500  Inorganic Chemistry  1
CHEM 1140  Physical Chemistry: Quantum Chemistry  1
PHYS 0070  Analytical Mechanics  1
PHYS 0160  Introduction to Relativity and Quantum Physics  1
PHYS 0470  Electricity and Magnetism  1

Select one of the following laboratory courses:

CHEM 1160  Physical Chemistry Laboratory  1
PHYS 0560  Experiments in Modern Physics  1
PHYS 1560  Modern Physics Laboratory  1

Select one course in statistical mechanics:

CHEM 1150  Physical Chemistry: Thermodynamics and Statistical Mechanics  1
PHYS 1530  Thermodynamics and Statistical Mechanics  1

Select one course in advanced mathematics:

MATH 0190  Advanced Placement Calculus (Physics/Engineering)  1
MATH 0200  Intermediate Calculus (Physics/Engineering)  1
MATH 0520  Linear Algebra  1

Seven courses, primarily at the 1000 or 2000 level, in chemistry or physics.

Select two semesters of independent study:

CHEM 0970/0980  Undergraduate Research  2
PHYS 1990  Senior Conference Course  2

Total Credits  21

1 For specific gateway and subfield courses, refer to the BEO website. Technical subfields include Biotechnology/Biomaterials, Information Technology and Computer Engineering, Energy and the Environment, and others.

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.

Brown University
Chemistry Track:

Concentrating in Chemistry – Three tracks required for the concentration will be taken for a letter grade. The expectation is that courses 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. Your degree will still be an Sc.B. in Chemistry. The Chemical Biology track is designed for 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 either 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.

Chemical Biology Track:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0500</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.

Materials Chemistry Track:

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>1</td>
</tr>
<tr>
<td>CHEM 0500</td>
<td>Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0970</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0980</td>
<td>Undergraduate Research</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 1700</td>
<td>Nanoscale Materials: Synthesis and Applications</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 0510</td>
<td>Introductory Microbiology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
<td>1</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
<td>1</td>
</tr>
</tbody>
</table>

Three other electives  

Total Credits 19  

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.

3. NOTE: MATH 0180 has additional prerequisites.

4. NOTE: Many of the BIOL courses have additional prerequisites.

In each of these cases, CHEM 0970/0980 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.

Honors Requirements for Chemistry

All ScB Chemistry concentrators, and any AB concentrator who completes the following requirements, are candidates for Honors; no separate application is necessary.

* A Poster presentation at the chemistry department’s spring undergraduate poster session.

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 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 either 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>
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<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
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<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.

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 Chemical 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. The expectation is that courses required for the concentration will be taken for a letter grade.

Concentrating in Chemistry – Three tracks

The required/recommended courses for the three tracks are given below.

Chemistry Track:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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<td>Undergraduate Research</td>
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<td>Undergraduate Research</td>
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<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
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</tr>
<tr>
<td>CHEM 1160</td>
<td>Physical Chemistry Laboratory</td>
<td>1</td>
</tr>
</tbody>
</table>

MATH 0180 or equivalent  

Two Physics courses  

Seven electives (at least three must be in Chemistry)  

Total Credits 19  

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.

3. NOTE: MATH 0180 has additional prerequisites.

4. NOTE: Many of the BIOL courses have additional prerequisites.

In each of these cases, CHEM 0970/0980 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.

Honors Requirements for Chemistry

All ScB Chemistry concentrators, and any AB concentrator who completes the following requirements, are candidates for Honors; no separate application is necessary.
The requirements for Honors in Chemistry are:

* A strong grade record in concentration courses. This means a grade point average for the concentration that is higher than 3.50.
* Two semesters of Independent Study (CHEM 0970, CHEM 0980 or equivalent). Guidelines and requirements associated with Independent Study are in the Undergraduate Concentration Handbook which can be found at the department website (http://www.brown.edu/academics/chemistry/undergraduate).
* A Thesis in a form approved by the research advisor, and recommended by the research advisor. Additional information about thesis guidelines will be provided by the Concentration Advisor in the first half of the fall semester.
* A Poster presentation at the chemistry department's spring undergraduate poster session.

**Classics**

Classics focuses on the languages, literature, history, and culture of Greco-Roman antiquity. 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 several optional tracks: Greek, Latin, and Sanskrit. Concentrators are strongly encouraged to integrate their studies in various fields of Classics by writing a senior thesis, by participating in seminars, or by undertaking a senior capstone project.

Beginning with declarations submitted after September 1, 2018, all tracks except "Greek and Latin," "Greek and Sanskrit," and "Latin and Sanskrit" require the satisfactory completion of nine courses as described below. The introductory courses in Greek and Latin may not usually be counted toward a concentration, but those in Sanskrit may be counted toward the concentration requirement in some of the tracks. Students should always consult with the Director of Undergraduate Studies regarding their path toward fulfilling requirements and choosing electives.

**Classics**

One course in Greek or Latin on the 1000-level or above.¹

Select one of the following series:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 1210</td>
<td>Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC</td>
</tr>
<tr>
<td>OR</td>
<td>CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic</td>
</tr>
</tbody>
</table>

And

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 1220</td>
<td>The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC</td>
</tr>
<tr>
<td>or HIST 1200B</td>
<td>The Fall of Empires and Rise of Kings: Greek History 478 to 323 BCE</td>
</tr>
</tbody>
</table>

Five other courses in classics, including classical archaeology, Greek, Latin, Sanskrit, or related areas to be approved by the concentration advisor. At least three of these five courses must be offered through the Department of Classics.²

One further course offered by the Department of Classics and designated "Classics and Beyond," OR a DIAP course offered by the Department of Classics.³

**Greek**

Four Greek courses on the 1000-level or above, at least one of which is to be: ¹

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEK 1810</td>
<td>Early Greek Literature</td>
</tr>
<tr>
<td>or GREEK 1820</td>
<td>5th Century Survey</td>
</tr>
<tr>
<td>CLAS 1210</td>
<td>Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC</td>
</tr>
<tr>
<td>CLAS 1220</td>
<td>The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC</td>
</tr>
<tr>
<td>OR</td>
<td>CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic</td>
</tr>
</tbody>
</table>

Five other courses in classics, including classical archaeology, Greek, Latin, Sanskrit, or related areas to be approved by the concentration advisor. At least three of these five courses must be offered through the Department of Classics.²

One further course offered by the Department of Classics and designated "Classics and Beyond," OR a DIAP course offered by the Department of Classics.³

**Latin**

Four Latin courses on the 1000-level or above, at least one of which is to be: ¹

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LATN 1810</td>
<td>Survey of Republican Literature</td>
</tr>
<tr>
<td>or LATN 1820</td>
<td>Survey of Roman Literature II: Empire</td>
</tr>
<tr>
<td>CLAS 1310</td>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
</tr>
<tr>
<td>CLAS 1320</td>
<td>Roman History II: The Roman Empire and Its Impact</td>
</tr>
<tr>
<td>or HIST 1201B</td>
<td>Roman History II: The Empire</td>
</tr>
</tbody>
</table>

Options offered in 2018/2019 include, but are not limited to:

- GREEK 1100H, GREEK 1110B, GREEK 1111B, GREEK 1150, GREEK 1810, LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, LATN 1930B, and with instructor permission for those who are very advanced in Greek: GREEK 2020E, GREEK 2110F and LATN 2080F, LATN 2090I.

- Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0150, CLAS 0660, CLAS 0765, CLAS 0780, CLAS 0855, CLAS 0900, CLAS 1202G, CLAS 1202J, CLAS 1145, CLAS 1310, CLAS 1320, CLAS 1750H, CLAS 1750L, CLAS 1750T, GREEK 0100, GREEK 1110H, GREEK 1110B, GREEK 1111B, GREEK 1150, GREEK 1810, LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, LATN 1930B, SANS 0100 and SANS 0200.

- Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0660, CLAS 0765, CLAS 0855, CLAS 1120G, CLAS 1120U, CLAS 1120Z, CLAS 1145, CLAS 1750H, LATN 1110H, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

Options offered in 2018/2019 include, but are not limited to: GREEK 1100H, GREEK 1110B, GREEK 1111B, GREEK 1150, GREEK 1810, and with instructor permission for those who are very advanced in Greek: GREEK 2020E and GREEK 2110F.

Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0150, CLAS 0660, CLAS 0765, CLAS 0780, CLAS 0855, CLAS 0900, CLAS 1202G, CLAS 1202J, CLAS 1145, CLAS 1310, CLAS 1320, CLAS 1750H, CLAS 1750L, CLAS 1750T, LATN 0300, LATN 0400, LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, LATN 1930B, SANS 0100 and SANS 0200.

Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0660, CLAS 0765, CLAS 0855, CLAS 1120G, CLAS 1120U, CLAS 1120Z, CLAS 1145, CLAS 1750H, LATN 1110H, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

Options offered in 2018/2019 include, but are not limited to:

- LATN 1810, LATN 1820
- CLAS 1310
- CLAS 1320
- or HIST 1201B

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).

Brown University
Two additional courses in classics, including classical archaeology, Greek, Latin, or related areas to be approved by the concentration advisor. At least one of these two courses must be offered through the Department of Classics.

One further course offered by the Department of Classics and designated “Classics and Beyond,” OR a DIAP course offered by the Department of Classics.

Total Credits
1 Options offered in 2018/2019 include, but are not limited to: LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, LATN 1930B, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

2 Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0150, CLAS 0660, CLAS 0765, CLAS 0780, CLAS 0855, CLAS 0900, CLAS 1120G, CLAS 1120U, CLAS 1120W, CLAS 1120Z, CLAS 1145, CLAS 1750L, CLAS 1750T, GREK 0300, GREK 0400, GREK 1100H, GREK 1110B, GREK 1111B, GREK 1150, GREK 1810, SANS 0100 and SANS 0200.

3 Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0660, CLAS 0765, CLAS 0855, CLAS 1120G, CLAS 1120U, CLAS 1120Z, CLAS 1145, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

**Greek and Latin**

Four Latin courses on the 1000-level or above, at least one of which is to be: 1

- LATN 1810 or LATN 1820: Survey of Republican Literature or Survey of Roman Literature II: Empire

Four Greek courses on the 1000-level or above, at least one of which is to be: 2

- GREK 1810 or GREK 1820: Early Greek Literature or Fifth Century Survey

CLAS 1210 Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC

CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC

or HIST 1200B The Fall of Empires and Rise of Kings: Greek History to 478 to 323 BCE

CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic

CLAS 1320 Roman History II: The Roman Empire and Its Impact

or HIST 1201B Roman History II: The Empire

Total Credits
1 Options offered in 2018/2019 include, but are not limited to: LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, LATN 1930B, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

2 Options offered in 2018/2019 include, but are not limited to: GREK 1100H, GREK 1110B, GREK 1111B, GREK 1150, GREK 1810 and with instructor permission for those who are very advanced in Greek: GREK 2020E, and GREK 2110F.

**South Asian Classics**

At least one Sanskrit course above Sanskrit 0300 1

Three of the Sanskrit Classics Courses in Translation 2

Four other courses in Classics or related areas (such as Comparative Literature, Religious Studies, South Asian Studies, Early Cultures, etc.) to be approved by the concentration advisor

One further course offered by the Department of Classics and designated “Classics and Beyond,” OR a DIAP course offered by the Department of Classics.

Total Credits
1 Options offered in 2018/2019 include: SANS 0400, SANS 1080 and SANS 1600.

2 Options offered in 2018/2019 include: CLAS 0855 and CLAS 1145.

3 Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0150, CLAS 0660, CLAS 0765, CLAS 0780, CLAS 0855, CLAS 0900, CLAS 1120G, CLAS 1120Q, CLAS 1120U, CLAS 1120W, CLAS 1120Z, CLAS 1145, CLAS 1310, CLAS 1320, CLAS 1750H, CLAS 1750L, CLAS 1750T, GREK 0100, GREK 0110, GREK 0200, GREK 0300, GREK 0400, GREK 1100H, GREK 1110B, GREK 1110S, GREK 1111B, GREK 1150, GREK 1810, LATN 0100, LATN 0110, LATN 0200, LATN 0300, LATN 0400, LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, and LATN 1930B.

4 Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0660, CLAS 0765, CLAS 0855, CLAS 1120G, CLAS 1120U, CLAS 1120Z, CLAS 1145, SANS 0400, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

**Sanskrit**

Two Sanskrit courses at the 1000-level or above 1

Two of the Sanskrit Classics Courses in Translation 2

Four other courses in Classics or related areas (such as Comparative Literature, Religious Studies, South Asian Studies, Early Cultures, etc.) to be approved by the concentration advisor

One further course offered by the Department of Classics and designated “Classics and Beyond,” OR a DIAP course offered by the Department of Classics.

Total Credits
1 Options offered in 2018/2019 include: SANS 1080 and SANS 1600.

2 Options offered in 2018/2019 include: CLAS 0855 and CLAS 1145.

3 Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0150, CLAS 0660, CLAS 0765, CLAS 0780, CLAS 0855, CLAS 0900, CLAS 1120G, CLAS 1120Q, CLAS 1120U, CLAS 1120W, CLAS 1120Z, CLAS 1145, CLAS 1310, CLAS 1320, CLAS 1750H, CLAS 1750L, CLAS 1750T, GREK 0100, GREK 0110, GREK 0200, GREK 0300, GREK 0400, GREK 1100H, GREK 1110B, GREK 1111B, GREK 1150, GREK 1810, LATN 0100, LATN 0110, LATN 0200, LATN 0300, LATN 0400, LATN 1040B, LATN 1060G, LATN 1110F, LATN 1110H, LATN 1110P, LATN 1820, and LATN 1930B.

4 Options offered by the Department of Classics in 2018/2019 include, but are not limited to: CLAS 0660, CLAS 0765, CLAS 0855, CLAS 1120G, CLAS 1120U, CLAS 1120Z, SANS 0400, and with instructor permission for those who are very advanced in Latin: LATN 2080F and LATN 2090I.

**Greek and Sanskrit**

Four Sanskrit courses at any level 1

Four Greek courses on the 1000-level or above, at least one of which is to be: 2

- GREK 1810 or GREK 1820: Early Greek Literature or Fifth Century Survey

CLAS 1210 Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC

CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC

or HIST 1200B The Fall of Empires and Rise of Kings: Greek History 478 to 323 BCE

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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, perception, language development 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 AB degree (Effective Class of 2019)

The A.B. concentration requires 12 courses. The Sc.B concentration additionally requires 1 laboratory course and 4 approved science courses, totaling to a total of 17 required courses.

Common Core

The introductory course, “CLPS 0010 Mind, Brain, and Behavior,” surveys the broad territory of the scientific study of the mind, as uniquely represented by our department. The course maps the breadth of the science of the mind, focusing on fascinating questions, garnered insights, common commitments, and successful techniques and approaches. The course could be taken by students interested in the CLPS concentrations or as an introduction at the beginning of one’s college career or as an integration after having completed a number of specialized courses in a particular concentration.

Careers in Cognitive Neuroscience and related fields requires familiarity with statistics. Therefore, the Cognitive Neuroscience concentration requires a course in Quantitative Methods (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 of AP Statistics, regardless of score. Students who feel that APCLPS 0900 is too elementary can complete an approved alternative course (e.g., APMA 1650, CLPS 2906).

Foundation

To provide students with a solid foundation of knowledge in their area of concentration and to minimize redundancy, the Cognitive Neuroscience concentration requires four foundation courses in Neuroscience, Cognitive Neuroscience, Cognitive Neuropsychology, and Computational Methods.

Electives

Each concentrator will take four additional courses that allow the student to go into depth in some of the relevant topics. These electives must include at least two courses at the cognitive neuroscience systems level. The courses designed to count as electives will often have foundation courses as prerequisites and may include laboratory courses, content courses, or seminars.

Research Methods and Capstone

Another element in the Cognitive Neuroscience concentration is a research methods course that builds on the introductory statistics course (which will be a prerequisite) but exposes students to a variety of topics in research of the mind: to empirical methods (e.g., surveys, chronometry, eye tracking, brain imaging), to common designs (e.g., factorial experimental, correlational, longitudinal), to research ethics, and to best practices of literature review. Concentrators will additionally take either a seminar course or an independent research course to serve as their capstone experience.

Additional requirements for Sc.B.

In line with university expectations, the Sc.B. requirements include a greater number of courses and especially science courses. The definition of “science” is flexible. A good number of these courses will be outside of CLPS, but several CLPS courses might fit into a coherent package as well. In addition, the Sc.B. degree also requires a lab course to provide these...
students with in-depth exposure to research methods in a particular area of the science of the mind.

**Honors Requirement**

The Research Methods course will serve as a requirement for admission to the Honors program in Cognitive Science, Cognitive Neuroscience, and Psychology. Previously, any lab course served as this requirement. This practice not only demanded a large number of lab courses as part of the CLPS curriculum but also suffered from frequent mismatches between the type of research the student wished to pursue and the type of lab course available in the relevant semesters. A more general research methods course is likely to prepare students better and more broadly than any single lab course can.

**FOR DETAILED UPDATES, PLEASE REFER TO THE COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES (CLPS) UNDERGRADUATE PAGE.**

**Requirements for the A.B. degree**

**STANDARD PROGRAM FOR THE A.B. DEGREE**

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**One Independent Study or Approved Seminar, such as:**

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<td>NEUR 1040</td>
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**Total Credits:** 17

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**Requirements for the Sc.B. degree**

**STANDARD PROGRAM FOR THE Sc.B. DEGREE**

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<td>One approved course in Neuroscience:</td>
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<td>One approved course in Cognitive Neuropsychology, such as:</td>
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</tr>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics A</td>
<td></td>
</tr>
</tbody>
</table>

**Total Credits:** 17

---

1 For a complete list of approved courses, see the CLPS Cognitive Neuroscience page.

**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 those 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 the Cognitive, Linguistic, and Psychological Sciences department with a diverse subset of fields including Computer Science, Neuroscience, Philosophy, Anthropology, Applied Math and Education. The A.B. program is primarily for students interested in studying human mental processes and acquiring a research orientation to the study of the mind. The Sc.B. program is designed for students who wish to develop a stronger background in Cognitive Science and requires students to engage in a specific research project in the focus area of their choosing. We recommend that prospective concentrators register for one of the gateway courses and at least one other core course in their first or second year.

**Concentration Requirements (Effective, Class of 2019)**

The A.B. concentration requires 12 courses. The Sc.B concentration additionally requires 1 laboratory course and 4 approved science courses, totaling to a total of 17 required courses.

**Common Core**

The introductory course, “CLPS 0010 Mind, Brain, and Behavior,” surveys the broad territory of the scientific study of the mind, as uniquely represented by our department. The course maps the breadth of the science of the mind, focusing on fascinating questions, garnered insights, common commitments, and successful techniques and approaches. The course could be taken by students interested in the CLPS concentrations or as an introduction at the beginning of one’s college career or as an integration after having completed a number of specialized courses in a particular concentration.

Careers in Cognitive Science and related fields require familiarity with statistics. Therefore, the Cognitive Science concentration requires a course in Quantitative Methods (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 of AP Statistics, regardless of score. Students who feel that CLPS 0900 is too elementary can complete an approved alternative course (e.g., APMA 1650, CLPS 2906).

**Foundation**

To provide students with a solid foundation of knowledge in their area of concentration and to minimize redundancy, the Cognitive Science concentration requires four foundation courses in Human Cognition, Perception, Language, and Computational Methods.

**Electives**

Each concentrator will take four additional courses that allow the student to go into depth in some of the relevant topics. These electives must include at least two courses in one of the four foundation topics (i.e., Human Cognition, Perception, Language, and Computational Methods). The courses designed to count as electives will often have foundation courses as prerequisites and may include laboratory courses, content courses, or seminars.

**Research Methods and Capstone**

Another element in the Cognitive Science concentration is a research methods course that builds on the introductory statistics course (which will be a prerequisite) but exposes students to a variety of topics in research of the mind: to empirical methods (e.g., surveys, chronometry, eye tracking, brain imaging), to common designs (e.g., factorial experimental, correlational, longitudinal), to research ethics, and to best practices of literature review. Concentrators will additionally take either a seminar course or an independent research course to serve as their capstone experience.

**Additional requirements for Sc.B.**

In line with university expectations, the Sc.B. requirements include a greater number of courses and especially science courses. The definition of “science” is flexible. A good number of these courses will be outside of CLPS, but several CLPS courses might fit into a coherent package as well. In addition, the Sc.B. degree also requires a lab course to provide these students with in-depth exposure to research methods in a particular area of the science of the mind.

**Honors Requirement**

The Research Methods course will serve as a requirement for admission to the Honors program in Cognitive Science, Cognitive Neuroscience, and Psychology. Previously, any lab course served as this requirement. This practice not only demanded a large number of lab courses as part of the CLPS curriculum but also suffered from frequent mismatches between the type of research the student wished to pursue and the type of lab course available in the relevant semesters. A more general research methods course is likely to prepare students better and more broadly than any single lab course can.

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**Requirements for the A.B. degree**

**STANDARD PROGRAM FOR THE A.B. DEGREE**

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Requirements for the Sc.B. degree

STANDARD PROGRAM FOR THE Sc.B. DEGREE

CLPS 0010 Mind, Brain and Behavior: An Interdisciplinary Approach 1
CLPS 0900 Statistical Methods 1

One approved course in Human Cognition, such as:
CLPS 0200 Human Cognition
CLPS 0220 Making Decisions

One approved course in Perception:
CLPS 0500 Perception and Mind

One approved course in Language, such as:
CLPS 0800 Language and the Mind
CLPS 0300 Introduction to Linguistics

One approved course in Computational Methods, such as:
CLPS 0950 Introduction to Programming
CLPS 1291 Computational Methods for Mind, Brain and Behavior

Four Approved Electives related to Cognitive Science, such as:
APMA 1690 Computational Probability and Statistics
BIOL 0480 Evolutionary Biology
CLPS 1100 Animal Cognition
CLPS 1470 Mechanisms of Motivated Decision Making
CLPS 1500 Perception and Action
CLPS 1610 Cognitive Development
CLPS 1800 Language Processing
CSCI 1010 Theory of Computation
CSCI 1480 Building Intelligent Robots
EDUC 1260 Emotion, Cognition, Education
ENGN 1580 Communication Systems
PHIL 1770 Philosophy of Mind

One Independent Study or Approved Seminar, such as:
CLPS 1400 The Neural Bases of Cognition
CLPS 1480C Cognitive Control Functions of the Prefrontal Cortex
CLPS 1495 Affective Neuroscience
CLPS 1560 Visually-Guided Action and Cognitive Processes
CLPS 1990 Senior Seminar in Cognition
CLPS 1900 Research Design and Methods

One Approved Laboratory Course, such as:
CLPS 1192 Experimental Analysis of Animal Behavior and Cognition
CLPS 1193 Laboratory in Genes and Behavior
CLPS 1492 Computational Cognitive Neuroscience
CLPS 1510 Auditory Perception Laboratory
CLPS 1590 Visualizing Vision
CLPS 1791 Laboratory in Social Cognition
CLPS 1890 Laboratory in Psycholinguistics

Four Approved Science Courses, such as:
BIOL 0200 The Foundation of Living Systems
BIOL 0800 Principles of Physiology
CHEM 0350 Organic Chemistry
CSCI 1430 Computer Vision
CSCI 1950F Introduction to Machine Learning
ENGN 1220 Neuroengineering
MATH 0100 Introductory Calculus, Part II
NEUR 1030 Neural Systems
NEUR 1040 Introduction to Neurogenetics

Total Credits: 17

1 For the current list of approved course in all categories, see the CLPS Cognitive Science page.

Comparative Literature

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 international focus and its broad-gauged view of art and culture in which the study of languages is combined with the analysis of literature and literary theory. All students take a course in literary theory and have the opportunity to complete a senior essay.

Please contact Professor D (stephanie.merrim@brown.edu)ore Levy (dore.levy@brown.edu) the Director of Undergraduate Studies, with questions.

There are three concentration tracks in Comparative Literature, as follows:

Track 1: Concentration in Comparative Literature with two 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).
• Comparative Literature 1210 (COLT 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 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 (COLT 1210), Introduction to the Theory of Literature.
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 (COLT 1210), Introduction to the Theory of Literature.
- Comparative Literature 1710 (COLT 1710A, COLT 1710C, COLT 1710D); 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
     - Enlightenment
     - Modern. Please note that the 19th, 20th, and 21st centuries count as one period, the Modern Period.

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 includes foundations in computer science, applied mathematics, statistics, biochemistry, molecular biology, genetics, ecology, evolution, anatomy, neuroscience, and visualization.

Students may pursue a Bachelor of Arts or a Bachelor of Science. Students pursuing the ScB have the option of electing a concentration in Computational Biology with one of three focus areas: Computer Sciences, Biological Sciences, or Applied Mathematics & Statistics. Both programs require a senior capstone experience that pairs students and faculty in creative research collaborations.

Standard program for the A.B. degree

<table>
<thead>
<tr>
<th>Prerequisites:</th>
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<tbody>
<tr>
<td>MATH 0100 Introductory Calculus, Part II</td>
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<tr>
<td>or MATH 0170 Advanced Placement Calculus</td>
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<tr>
<td>BIOL 0200 The Foundation of Living Systems</td>
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General Core Requirements: Biology

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BIOL 0470 Genetics</td>
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<tr>
<td>BIOL 0280 Biochemistry</td>
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<tr>
<td>BIOL 0500 Cell and Molecular Biology</td>
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</table>

General Core Requirements: Chemistry

<table>
<thead>
<tr>
<th>Course</th>
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</thead>
<tbody>
<tr>
<td>CHEM 0330 Equilibrium, Rate, and Structure</td>
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<tr>
<td>or CHEM 0350 Organic Chemistry</td>
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</table>

General Core Requirements: Computer Science

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>COLT 1710A Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>COLT 1990 Introduction to Algorithms and Data Structures</td>
</tr>
<tr>
<td>or COLT 1710C</td>
</tr>
<tr>
<td>COLT 0170 Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>&amp; COLT 0180 Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>or COLT 1710C</td>
</tr>
<tr>
<td>COLT 0190 Accelerated Introduction to Computer Science</td>
</tr>
<tr>
<td>&amp; COLT 0180 and Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>&amp; COLT 0300 and Introduction to Software Engineering</td>
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<tr>
<td>&amp; COLT 1010 and Theory of Computation</td>
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</table>

General Core Requirements: Probability & Statistics

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>APMA 1650 Statistical Inference I</td>
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<td>OR</td>
</tr>
<tr>
<td>CSIC 1450 Probability and Computing</td>
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<tr>
<td>OR</td>
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<tr>
<td>MATH 1610 Probability</td>
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Comp Bio Core Course Requirements

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CSCI 1810 Computational Molecular Biology</td>
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<tr>
<td>APMA 1080 Inference in Genomics and Molecular Biology</td>
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</tbody>
</table>

AND two of the following:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>CSCI 1820 Algorithmic Foundations of Computational Biology</td>
</tr>
<tr>
<td>BIOL 1430 Population Genetics</td>
</tr>
<tr>
<td>BIOL 1465 Human Population Genetics</td>
</tr>
<tr>
<td>CSIC 1420 Machine Learning</td>
</tr>
<tr>
<td>APMA 1690 Computational Probability and Statistics</td>
</tr>
<tr>
<td>APMA 1660 Statistical Inference II</td>
</tr>
</tbody>
</table>

For additional information, please visit the Comparative Literature website (http://www.brown.edu/Departments/Comparative_Literature/) or see the Director of Undergraduate Studies, Professor Dore Levy.
• Enrolling in an independent study: CSCI 1970, BIOL 1950, APMA 1970
• Writing an Honors Thesis
• Taking a "WRIT" course in the final two years

Capstone Experience
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. The requirements are either one semester of reading and research with a CCMB Faculty member or approved advisor, or a 2000-level Computational Biology course.

Standard program for the Sc.B. degree

Prerequisites
MATH 0100 Introductory Calculus, Part I (or equivalent) 1
or MATH 0170 Advanced Placement Calculus
BIOL 0200 The Foundation of Living Systems (or equivalent) 1

General Core Course Requirements: Biology
BIOL 0470 Genetics (prerequisite BIOL 0200 or equivalent) 1
BIOL 0280 Biochemistry 1
or BIOL 0500 Cell and Molecular Biology

General Core Requirements: Chemistry
CHEM 0330 Equilibrium, Rate, and Structure 1
or CHEM 0350 Organic Chemistry

General Core Requirements: Computer Science
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures 2-4
OR
CSCI 0170 Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction
OR
CSCI 0190 & CSCI 0180 Accelerated Introduction to Computer Science and Computer Science: An Integrated Introduction and Introduction to Software Engineering and Introduction to Computer Systems
CSCI 0220 Introduction to Discrete Structures and Probability 1

General Core Requirements: Probability & Statistics
APMA 1650 Statistical Inference I 1
or CSCI 1450 Probability and Computing
or MATH 1610 Probability

General Core Requirements: Computational Biology
CSCI 1810 Computational Molecular Biology 1
APMA 1080 Inference in Genomics and Molecular Biology 1

Capstone Experience
BIOL 1950/1960 Directed Research/Independent Study 1
CSCI 1970 Individual Independent Study

Six courses in one of the following three tracks: 6

Computer Science Track:
Three of the following:
CSCI 1230 Introduction to Computer Graphics
CSCI 1270 Database Management Systems

CSCI 1410 Artificial Intelligence
CSCI 1550 Probabilistic Methods in Computer Science
CSCI 1570 Design and Analysis of Algorithms
or other Computer Science courses approved by the concentration advisor

Three of the following:
CSCI 0330 Introduction to Computer Systems
or CSCI 0320 Introduction to Software Engineering
CSCI 1820 Algorithmic Foundations of Computational Biology

PH 2620 Statistical Methods in Bioinformatics, I
APMA 1660 Statistical Inference II
BIOL 1430 Population Genetics
BIOL 1465 Human Population Genomics
APMA 1690 Computational Probability and Statistics

Biological Sciences track
At least four courses comprising a coherent theme in one of the following areas: Biochemistry, Ecology, Evolution, or Neurobiology.
AND select two courses from the following:
CSCI 1820 Algorithmic Foundations of Computational Biology
PH 2620 Statistical Methods in Bioinformatics, I
APMA 1660 Statistical Inference II
BIOL 1430 Population Genetics
BIOL 1465 Human Population Genomics
APMA 1690 Computational Probability and Statistics

Applied Mathematics & Statistics Track:
At least three courses from the following:
APMA 1660 Statistical Inference II
APMA 1690 Computational Probability and Statistics
CSCI 1410 Artificial Intelligence
APMA 0340 Methods of Applied Mathematics I, II
& APMA 0330 and Methods of Applied Mathematics I, II
OR
APMA 0360 Applied Partial Differential Equations I
& APMA 0350 and Applied Ordinary Differential Equations
At least three of the following:
BIOL 1430 Population Genetics
CSCI 1820 Algorithmic Foundations of Computational Biology
PH 2620 Statistical Methods in Bioinformatics, I
APMA 1070 Quantitative Models of Biological Systems
BIOL 1465 Human Population Genomics

Total Credits 18-20

Honors:
In order to be considered a candidate for honors, students will be expected to maintain an outstanding record, with no "C"s in concentration courses and with a minimum of an "A-" average in concentration courses. In addition, students should take at least one semester, and are strongly encouraged to take 2 semesters, of reading and research with a CCMB faculty member or approved advisor. Students must submit to a public defense of their theses to be open to the CCMB community.

• Students seeking honors are advised to choose a Thesis Advisor prior to the end of their Junior year
• Students must complete the Registration form for Comp Bio and submit it to CCMB@BROWN.EDU

Any deviation from these rules must be approved by the director of undergraduate studies, in consultation with the student's advisor.
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.

Our requirements are built on a collection of pathways, each representing a well defined area within computer science. Concentrators interested in a well defined area within computer science. Concentrators interested in a well defined area within computer science. Concentrators interested in particular areas can choose the courses included in particular pathways. Conversely, concentrators who are unsure of their area of interest but who have particularly enjoyed certain courses can choose pathways that include those concentrations.

Requirements for the Standard Track of the Sc.B. degree

Prerequisites (0-3 courses)

Calculus prerequisite: students must complete or place out of second semester calculus.

- MATH 0100 Introductory Calculus, Part II
- or MATH 0170 Advanced Placement Calculus
- or MATH 0190 Advanced Placement Calculus (Physics/Engineering)

Concentration Requirements

Core-Computer Science:

Select one of the following introductory course 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 an advanced course)

Thirteen CS courses numbered 0220 or higher.

- Two complete pathways (at least one core course from each)
  - Each requires two 1000-level courses as well as one-to-three intermediate courses
  - One of the courses used in one pathway must be a capstone course (defined below)
  - The core and related courses used in one pathway may not overlap with those used in another

Intermediate Courses

Students must complete the intermediate courses defined for the pathway they choose. In addition, ScB students must take at least one course from each intermediate course category to ensure they span all areas. Taking additional courses beyond those listed for the pathway may be required.

### Foundations

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability</td>
</tr>
<tr>
<td>CSCI 1010</td>
<td>Theory of Computation</td>
</tr>
</tbody>
</table>

### Mathematics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0530</td>
<td>Coding the Matrix: An Introduction to Linear Algebra or MATH 0520 Linear Algebra</td>
</tr>
<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>CSCI 1450</td>
<td>Probability and Computing or APMA 1650 Statistical Inference I</td>
</tr>
<tr>
<td>or APMA 1655</td>
<td>Statistical Inference I</td>
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<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus</td>
</tr>
<tr>
<td>or MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</td>
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</table>

### Systems

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>CSCI 0320</td>
<td>Introduction to Software Engineering</td>
</tr>
<tr>
<td>CSCI 0330</td>
<td>Introduction to Computer Systems</td>
</tr>
</tbody>
</table>

### Pathways

Completing a pathway entails taking two courses in the pathway of which at least one is a course course for the pathway. One must also take the intermediate courses specified as part of the pathway.

**SYSTEMS: studies the design, construction, and analysis of modern, multi-faceted computing systems**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSCI 1380</td>
<td>Distributed Computer Systems</td>
</tr>
<tr>
<td>or CSCI 1670</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>or CSCI 1680</td>
<td>Computer Networks</td>
</tr>
</tbody>
</table>

### Related Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1270</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>or CSCI 1320</td>
<td>Creating Modern Web Applications</td>
</tr>
<tr>
<td>or CSCI 1600</td>
<td>Real-Time and Embedded Software</td>
</tr>
<tr>
<td>or CSCI 1650</td>
<td>Software Security and Exploitation</td>
</tr>
<tr>
<td>or CSCI 1660</td>
<td>Introduction to Computer Systems Security</td>
</tr>
<tr>
<td>or CSCI 1730</td>
<td>Design and Implementation of Programming Languages</td>
</tr>
<tr>
<td>or CSCI 1760</td>
<td>Multiprocessor Synchronization</td>
</tr>
<tr>
<td>or CSCI 1950Y</td>
<td>Logic for Systems</td>
</tr>
<tr>
<td>or ENGN 1640</td>
<td>Design of Computing Systems</td>
</tr>
</tbody>
</table>

### Intermediate Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0330</td>
<td>Introduction to Computer Systems</td>
</tr>
<tr>
<td>CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability</td>
</tr>
<tr>
<td>or CSCI 0320</td>
<td>Introduction to Software Engineering</td>
</tr>
</tbody>
</table>

### SOFTWARE PRINCIPLES: studies the design, construction, and analysis of modern software systems

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>CSCI 1260</td>
<td>Compilers and Program Analysis</td>
</tr>
<tr>
<td>or CSCI 1320</td>
<td>Creating Modern Web Applications</td>
</tr>
<tr>
<td>or CSCI 1600</td>
<td>Real-Time and Embedded Software</td>
</tr>
<tr>
<td>or CSCI 1730</td>
<td>Design and Implementation of Programming Languages</td>
</tr>
<tr>
<td>or CSCI 1950Y</td>
<td>Logic for Systems</td>
</tr>
</tbody>
</table>

### Related Courses

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<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1270</td>
<td>Database Management Systems</td>
</tr>
</tbody>
</table>
Core Courses
- CSCI 1510: Introduction to Cryptography and Computer Security
- or CSCI 1550: Probabilistic Methods in Computer Science
- or CSCI 1570: Design and Analysis of Algorithms
- or CSCI 1760: Multiprocessor Synchronization

Intermediate Courses
- CSCI 1590: Introduction to Computational Complexity
- or CSCI 1810: Computational Molecular Biology
- or CSCI 1820: Algorithmic Foundations of Computational Biology
- or CSCI 1950H: Computational Topology
- or CSCI 1950Y: Logic for Systems
- or CSCI 1951G: Optimization Methods in Finance
- or CSCI 1951K: Algorithmic Game Theory

Related Courses
- CSCI 1010: Theory of Computation
- CSCI 1450: Probability and Computing
- or APMA 1650: Statistical Inference I
- or APMA 1655: Statistical Inference I
- MATH 0520: Linear Algebra
- or MATH 0540: Honors Linear Algebra
- or CSCI 0530: Coding the Matrix: An Introduction to Linear Algebra for Computer Science

SECURITY: studies the design, construction, analysis, and defense of techniques to protect systems, data, and communications

Core Courses
- CSCI 1510: Introduction to Cryptography and Computer Security
- or CSCI 1660: Introduction to Computer Systems Security
- or CSCI 1650: Software Security and Exploitation

Intermediate Courses
- CSCI 1320: Creating Modern Web Applications
- or CSCI 1380: Distributed Computer Systems
- or CSCI 1670: Operating Systems
- or CSCI 1730: Design and Implementation of Programming Languages
- or CSCI 1800: Cybersecurity and International Relations
- or CSCI 1950Y: Logic for Systems
- or CSCI 1951B: Virtual Citizens or Subjects? The Global Battle Over Governing Your Internet
- or CSCI 1951F: Computers, Freedom and Privacy: Current Topics in Law and Policy

Related Courses
- CSCI 1010: Theory of Computation
- CSCI 110: Introduction to Computer Systems
- CSCI 0220: Introduction to Discrete Structures and Probability

VISUAL COMPUTING: studies the creation, interaction, and analysis of images and visual information, including animation and games

Core Courses
- CSCI 1230: Introduction to Computer Graphics
- or CSCI 1250: Introduction to Computer Animation
- or CSCI 1280: Intermediate 3D Computer Animation
- or CSCI 1300: User Interfaces and User Experience
- or CSCI 1370: Virtual Reality Design for Science
- or CSCI 1430: Computer Vision
- or CSCI 1950T: Advanced Animation Production
- or CSCI 2240: Interactive Computer Graphics

Related Courses
- CSCI 1950N: 2D Game Engines
- or CSCI 1950U: Topics in 3D Game Engine Development
SELF-DESIGNED: This pathway is modeled after the Brown programs for designing one’s own concentration. Students electing this pathway must write a proposal for their pathway and have it approved by an advisor and the director of undergraduate studies. The proposal must meet the breadth and overall course requirements. This must be done by the end of the student's seventh semester.  

1 Capstone: a one-semester course, 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.

2 Certain 1000-level courses may be used to fill the additional 1000-level course requirements for both the AB and ScB. No more than one such course may be used for the AB concentration and no more than three for the ScB concentration. A list of approved non-CS courses is on our web page. Unless explicitly stated on our web page, such non-CS courses may not be used as part of pathways.

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

Prerequisites (0-3 courses)  

Students must complete or place out of second semester calculus.

- MATH 0100 Introductory Calculus, Part II
- or MATH 0170 Advanced Placement Calculus
- or MATH 0190 Advanced Placement Calculus (Physics/Engineering)

Concentration Requirements (9 courses)

Core Computer Science:  

Select one of the following series:

2

Series A  

- CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
- or CSCI 0160 Introduction to Algorithms and Data Structures

Series B  

- CSCI 0320 Introduction to Software Engineering
- or CSCI 0330 Introduction to Computer Systems
- CSCI 1450 Probability and Computing
- or APMA 1655 Statistical Inference I
- or APMA 1650 Statistical Inference I
The 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.

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**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.

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**Standard Program for the Sc.B. degree.**

**Prerequisites (3 courses):**

- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra
- or MATH 0540 Honors Linear Algebra
- or CSCI 0530 Coding the Matrix: An Introduction to Linear Algebra for Computer Science

**Required Courses: 17 courses:** 8 Computer Science, 8 Economics, and a Capstone

**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)

Seven CS courses numbered 0220 or higher

- One complete pathway (see ScB for pathways)

- Additional intermediate courses so that a total of three are taken with at least one in each of two different intermediate-course categories (see the ScB requirements for a listing of these categories)

- One additional 1000-level course that is neither a core nor a related course for the pathways used above

- Of the remaining two courses, at least one must be at the 1000-level or higher (i.e., one may be an intermediate course not otherwise used as part of the concentration). One course may be an approved 1000-level course from another department. Unless explicitly stated in a pathway, such non-CS courses may not be used as part of pathways.

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**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.
Standard Program for the A.B. degree:

Prerequisites (3 courses):
- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra
  - or MATH 0540 Honors Linear Algebra
  - or CSCI 0530 Coding the Matrix: An Introduction to Linear Algebra for Computer Science
- ECON 0110 Principles of Economics

Required Courses: 13 courses: 7 Computer Science and 6 Economics

- CSCI 1450 Probability and Computing
- or APMA 1650 Statistical Inference I
- or APMA 1655 Statistical Inference I

Select one of the following series:

**Series A**
- CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
  - and Introduction to Algorithms and Data Structures

**Series B**
- CSCI 0170 Computer Science: An Integrated Introduction
- & CSCI 0180 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

**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:
- CSCI 0220 Introduction to Discrete Structures and Probability (math)
- CSCI 0320 Introduction to Software Engineering (systems)
- CSCI 0330 Introduction to Computer Systems (systems)
- CSCI 1010 Theory of Computation

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

Three courses from the "mathematical-economics" group:
- ECON 1170 Welfare Economics and Social Choice Theory
- ECON 1220 Monetary and Fiscal Policy
- ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
- ECON 1460 Industrial Organization
- ECON 1465 Market Design: Theory and Applications
- ECON 1470 Bargaining Theory and Applications
- ECON 1490 Designing Internet Marketplaces
- ECON 1640 Econometrics II
- ECON 1650 Financial Econometrics
- ECON 1660 Big Data
- ECON 1670 Advanced Topics in Econometrics
- ECON 1740 Mathematical Finance
- 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

and any graduate Economics course

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). You are not restricted to pairs on this list, but any pair not on the list must be approved by the Computer Science director of undergraduate studies.

2 Note that ECON 1620, ECON 1960, and ECON 1970 (independent study) cannot be used for concentration credit. However, 1620 and 1960 can be used for university credit and up to two 1970s may be used for university credit.

3 One capstone course (http://cs.brown.edu/degrees/undergrad/concentrations/capstone) in either Computer Science or Economics: a one-semester course, 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.

4 Or ECON 1110, with permission.
Honors
Students who meet stated requirements are eligible to write an honors thesis in their senior year. Students should consult the listed honors requirements of whichever of the two departments their primary thesis advisor belongs to, at the respective departments' websites.

Professional Track
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?
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- 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.

Contemplative Studies

The concentration in Contemplative Studies investigates the underlying philosophical, psychological, and scientific bases of human contemplative experience. Students pursue a "third person" academic approach drawn from the humanities and sciences to analyze the cultural, historical, and scientific underpinnings of contemplative experiences in religion, art, music, and literature. This is developed in combination with a "critical first-person" approach based in practical experience of contemplative techniques and methods to provide an integrated understanding of the role of contemplative thought and experience in societies and on the individuals who constitute them.

Concentration Core (6 courses including the Senior Concentration Seminar)

COST 0100 Introduction to Contemplative Studies

Two introductory science courses addressing the biological, psychological, and neurological functioning of the human body/mind complex with health implications, and how contemplative practices affect it.

Select one from the following list:

| BIOL 0200 | The Foundation of Living Systems |
| CLPS 0200 | Human Cognition |
| CLPS 0500 | Perception and Mind |
| NEUR 0010 | The Brain: An Introduction to Neuroscience |

Others with approval

Select one from following list:

| COST 0200 | Meditation and the Brain |
| COST 1020 | Cognitive Neuroscience of Meditation |
| COST 1080 | Meditation, Mindfulness and Health |

Two humanities courses that present important themes that can emerge from bringing a Contemplative Studies perspective to the study of contemplative religious traditions and to the philosophical analysis of the key questions of human existence.

| ANTH 1240 | Religion and Culture |
| CLAS 0990 | Concepts of the Self in Classical Indian Literature |
| CLAS 1120G | The Idea of Self |
| COST 0040 | Great Contemplative Traditions of Asia |
| or RELS 0040 | Great Contemplative Traditions of Asia |
| COST 0145 | Karma, Rebirth and Liberation: Life and Death in South Asian Religions |
| or RELS 0145 | Karma, Rebirth and Liberation: Life and Death in South Asian Religions |
| COST 0410 | Engaged Buddhism |
| COST 0420 | The Theory and Practice of Buddhist Meditation |
| COST 0425 | The History and Practice of Yoga in India and Beyond |
| COST 0450 | Stages of the Contemplative Path |
| PHIL 0010 | The Place of Persons |
| PHIL 0220 | Introduction to Philosophy |
| PHIL 0650 | Psychology and Philosophy of Happiness |
| PHIL 1520 | Consciousness |
| PHIL 1770 | Philosophy of Mind |
| RELS 0056 | Spiritual But Not Religious: Making Spirituality in America |
| RELS 0065 | On Being Human: Religious and Philosophical Conceptions of Self |
| RELS 1370B | Philosophy of Mysticism |

Others with approval

COST 1950 Senior Concentrators' Seminar

Track Requirements (6 additional courses Including a Capstone Course)

Students must complete either a Science or Humanities track in addition to the concentration core.

Science Track

The science track in Contemplative Studies gives concentrators a foundational understanding of the scientific methods used to investigate the biological, psychological, and neurological effects of contemplative practice and their potential implications on physical and mental health both for individuals and for the general public. Students will be taught how to critique current research as well as how to develop, operationalize, and test hypotheses related to contemplative practice. Students will become well-versed in how to study first-person reports related to the phenomenology of contemplative experience as a foundation for formulating third-person tests of the effects of practice on brain function and behavior. The Contemplative Studies Science Track trains students to investigate these types of questions not only for academic scholarship, but also to provide a method of self-inquiry that can be used to augment any area of life.

Five thematic science courses, including a Capstone Course, drawn primarily from BIOL, COST, NEUR, CLPS, and PHP, at least one of which must include laboratory work and two of which must be 1000-level; and one Statistics course for a total of six courses.

The Capstone Course is intended to be a culmination of the students' concentration in which they will bring to bear what their interests have been in developing their focused work in the program. The capstone course can be either:

- A one semester Independent Reading and Research course, either COST 1910 or 1920 OR BIOL 1950 or 1960, depending on the semester; OR
b. A special project done within an existing Contemplative Studies core or related course at the 1000-level in which the student brings to bear the larger concerns of her concentration on a problem or issue within the course. It is expected that such Capstone research papers will be more substantial than a term paper.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIOL 0280</td>
<td>Biochemistry (lab)</td>
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<tr>
<td>BIOL 0470</td>
<td>Genetics (lab)</td>
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<td>BIOL 0530</td>
<td>Principles of Immunology</td>
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<td>BIOL 0800</td>
<td>Principles of Physiology (lab)</td>
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<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
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<td>CLPS 0700</td>
<td>Social Psychology</td>
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<td>CLPS 0710</td>
<td>The Psychology and Philosophy of Happiness</td>
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<td>CLPS 1193</td>
<td>Laboratory in Genes and Behavior</td>
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<td>CLPS 1194</td>
<td>Sleep and Chronobiology Research</td>
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<td>CLPS 1291</td>
<td>Computational Methods for Mind, Brain and Behavior</td>
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<tr>
<td>CLPS 1400</td>
<td>The Neural Bases of Cognition</td>
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<td>CLPS 1490</td>
<td>Functional Magnetic Resonance Imaging: Theory and Practice</td>
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<td>CLPS 1492</td>
<td>Computational Cognitive Neuroscience</td>
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<td>CLPS 1570</td>
<td>Perceptual Learning</td>
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<tr>
<td>CLPS 1590</td>
<td>Visualizing Vision</td>
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<tr>
<td>CLPS 1791</td>
<td>Laboratory in Social Cognition</td>
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<tr>
<td>COST 0200</td>
<td>Meditation and the Brain</td>
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<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
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<td>NEUR 1030</td>
<td>Neural Systems</td>
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<td>NEUR 1540</td>
<td>Neurobiology of Learning and Memory</td>
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<td>NEUR 1600</td>
<td>Experimental Neurobiology</td>
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<td>NEUR 1940i</td>
<td>Neural Correlates of Consciousness</td>
</tr>
<tr>
<td>PHP 1600</td>
<td>Obesity in the 21st Century: Causes, Consequences and Countermeasures</td>
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<tr>
<td>PHP 1740</td>
<td>Principles of Health Behavior and Health Promotion Interventions</td>
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<td>PHP 1920</td>
<td>Social Determinants of Health</td>
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<td>Others with approval</td>
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One statistics course (others with approval) 1

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<th>Course Code</th>
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<tbody>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
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<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
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<tr>
<td>BIOL 0495</td>
<td>Statistical Analysis of Biological Data</td>
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<td>CLPS 0900</td>
<td>Statistical Methods</td>
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<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
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<tr>
<td>PHP 1501</td>
<td>Essentials of Data Analysis</td>
</tr>
</tbody>
</table>

Humanities Track

The Humanities track explores the origin and development of contemplative practices within specific religious, cultural, and historical contexts and gives students a foundation in the Philosophy of Mind relevant to the scientific study of contemplative practice. Students will choose a concentration program that includes three intermediate and three advanced seminars drawn from the two areas below. While it is recommended that students focus primarily on one of these two areas, the precise balance of the individual concentration program for each student will be established with the concentration advisor when the student applies to enter the concentration, normally in their fourth semester of study.

Six courses, including a Capstone Course, from across the two areas below:

The Capstone Course is intended to be a culmination of the students’ concentration in which they will bring to bear what their interests have been in developing their focused work in the program. The Capstone course can be either:

a. A one semester Independent Reading and Research course, either COST 1910 or 1920 OR BIOL 1950 or 1960, depending on the semester; OR

b. A special project done within an existing Contemplative Studies core or related course at the 1000-level in which the student brings to bear the larger concerns of her concentration on a problem or issue within the course. It is expected that such Capstone research papers will be more substantial than a term paper.

Contemplative Religious Traditions

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CLAS 0210Y</td>
<td>The Philosophy of Classical Indian Yoga</td>
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<tr>
<td>CLAS 0820</td>
<td>Epics of India</td>
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<tr>
<td>CLAS 0850</td>
<td>Mythology of India</td>
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<tr>
<td>CLAS 0990</td>
<td>Concepts of the Self in Classical Indian Literature</td>
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<tr>
<td>CLAS 0995</td>
<td>India’s Classical Performing Arts</td>
</tr>
<tr>
<td>CLAS 1140</td>
<td>Classical Philosophy of India</td>
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<tr>
<td>CLAS 1160</td>
<td>Classics of Indian Literature</td>
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<tr>
<td>COST 0145</td>
<td>Karma, Rebirth and Liberation: Life and Death in South Asian Religions</td>
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<tr>
<td>COST 0420</td>
<td>The Theory and Practice of Buddhist Meditation</td>
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<tr>
<td>COST 0530</td>
<td>Laozi and the Dao de Jing</td>
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<tr>
<td>COST 0550</td>
<td>Tibetan Buddhism and the West</td>
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<tr>
<td>COST 0855</td>
<td>The Bhagavad Gītā (CLAS 0855)</td>
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<tr>
<td>EAST 0180</td>
<td>Japan: Nature, Ritual, and the Arts</td>
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<tr>
<td>EAST 1420</td>
<td>The Confucian Mind</td>
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<tr>
<td>EAST 1880D</td>
<td>Early Daoist Syncretism: Zhuang Zi and Huai Nan Zi</td>
</tr>
<tr>
<td>RELS 0045</td>
<td>Buddhism and Death</td>
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<tr>
<td>RELS 0100</td>
<td>Buddhist Thought, Practice, and Society</td>
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<tr>
<td>RELS 0120</td>
<td>The Classical Chinese Philosophy of Life</td>
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<td>RELS 0130</td>
<td>Religions of Classical India</td>
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<tr>
<td>RELS 1441</td>
<td>Zen Meditation in China, Korea, and Japan</td>
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<tr>
<td>RELS 0570</td>
<td>Science, Religion, and the Search for Happiness in Traditional Asian Thought</td>
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<tr>
<td>RELS 0580</td>
<td>Experiencing the Sacred: Embodiment and Aesthetics in South Asian Religions</td>
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<tr>
<td>RELS 0911</td>
<td>Buddhism in India</td>
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<tr>
<td>RELS 1370B</td>
<td>Philosophy of Mysticism</td>
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<tr>
<td>RELS 1425</td>
<td>Buddhist Poetry</td>
</tr>
<tr>
<td>RELS 1440</td>
<td>Themes in Japanese Buddhism</td>
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<tr>
<td>RELS 1442</td>
<td>The History, Philosophy, and Practice of Rinzai Zen Buddhism</td>
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The Philosophy of Mind

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>COST 1520</td>
<td>Consciousness</td>
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<tr>
<td>PHIL 0350</td>
<td>Ancient Philosophy</td>
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<tr>
<td>PHIL 0650</td>
<td>Psychology and Philosophy of Happiness</td>
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<td>PHIL 0990L</td>
<td>Valuing Persons</td>
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<td>PHIL 0990M</td>
<td>Descartes Meditations</td>
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<tr>
<td>PHIL 1290</td>
<td>Kant's Moral Philosophy</td>
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<tr>
<td>PHIL 1590</td>
<td>Philosophy of Science</td>
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<tr>
<td>PHIL 1650</td>
<td>Moral Theories</td>
</tr>
<tr>
<td>PHIL 1660</td>
<td>Metaphysics</td>
</tr>
<tr>
<td>PHIL 1720</td>
<td>Kant: The Critique of Pure Reason</td>
</tr>
<tr>
<td>PHIL 1750</td>
<td>Epistemology</td>
</tr>
<tr>
<td>PHIL 1770</td>
<td>Philosophy of Mind</td>
</tr>
</tbody>
</table>
Honnors Requirement

Students with a minimum GPA of 3.5 in the concentration may apply for entrance into the Honors program in the middle of their sixth semester. To apply, students submit a proposal for a senior thesis project describing the work to be undertaken and its relevance to the field of Contemplative Studies, along with a copy of their academic transcript. Students accepted into Honors must complete the required Capstone seminar, UNIV 1010, and enroll in an additional semester of independent study in their advisor's department. Students must complete an Honors Thesis to the satisfaction of their advisor and present the results of their studies in formal talks or poster sessions open to all interested faculty and students.

Development Studies

Development Studies is an interdisciplinary concentration whose mission is to provide students with the knowledge, critical perspectives and skills they need to engage with the issues of economic and social development, especially as they relate to the Global South. The concentration is grounded in the social sciences – anthropology, sociology, political science, and economics – but it also heavily draws from history, art, and other disciplines in the humanities. The requirements are designed with three goals in mind: first, provide concentrators a solid foundation in the question of development; second, allow concentrators to develop expertise in a specific region that is of interest to them; third, give concentrators access to a wide range of courses in a large number of disciplines of interest to them. Concentrators are encouraged to do their own original field research. During the senior year, concentrators complete a capstone experience tailored to their interests (http://brown.edu/academics/development-studies/about/what-ds-capstone) in some aspect of international development. Towards this end, they benefit from extensive faculty and peer support.

Requirements

10 Courses + Language + Capstone

CORE

All core courses must be taken prior to senior year

Choose TWO from the following:

SOC 1620 Globalization and Social Conflict
POLS 1240 Politics, Markets and States in Developing Countries

ANTH 0110 Anthropology and Global Social Problems: Environment, Development, and Governance

Seminar in Sociology of Development

DEVL 1000/ SOC 1871D Sophomore Seminar in Development Studies (Pre-requisites: sophomore or junior standing, and completion of SOC 1620, POLS 1240, or ANTH 0110)

Development Economics - Choose ONE of the following:
(ECON 0510 for students with little to no Econ background, ECON 1510 for students with strong Econ backgrounds or double-concentrating in Econ)

ECON 0510 Development and the International Economy (Prerequisite: ECON 0110, or AP Microeconomics 4 and AP Macroeconomics 4, or IB HL Economics 6)

ECON 1510 Economic Development (Prerequisite: ECON 1110 or ECON 1130; and APMA 1650 or ECON 1620 or ECON 1630)

Research Methods and Design

DEVL 1500 Methods in Development Research (junior year)

Regional Courses

Two courses that focus on the same region of the developing world. Should complement the student's foreign language.

Elective Courses

Three courses chosen from a list of pre-approved electives or by special approval.

Foreign Language

Equivalent of three full years of university study or above.

Senior Capstone

a. Thesis option: DEVL 1980 (fall senior year) and DEVL 1990 (spring senior year), or
b. Capstone seminar option: approved senior seminar in Development Studies, with seminar-length paper requirement.

See the Development Studies website (http://brown.edu/academics/development-studies) for the list of pre-approved elective 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.

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 Chinese, Japanese, or Korean (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. Up to three upper level (700-999) may count as electives for concentration credit.

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.

Language Prerequisites (demonstrating proficiency through the third-year or 0600 level in one of the three languages below)

Chinese

<table>
<thead>
<tr>
<th>CHIN 0100</th>
<th>Basic Chinese &amp; CHIN 0200</th>
<th>Basic Chinese</th>
</tr>
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<tr>
<td>CHIN 0300</td>
<td>Intermediate Chinese &amp; CHIN 0400</td>
<td>Intermediate Chinese</td>
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<tr>
<td>CHIN 0500</td>
<td>Advanced Modern Chinese I &amp; CHIN 0600</td>
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Japanese

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<th>Basic Japanese &amp; JAPN 0200</th>
<th>Basic Japanese</th>
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<tbody>
<tr>
<td>JAPN 0150</td>
<td>Advanced Beginning Japanese &amp; JAPN 0250</td>
<td>Advanced Beginning Japanese</td>
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</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
The concentration requires that students complete a total of eight electives tied to their course of study, which may be defined in linguistic, chronological, thematic, or cultural terms. Students should choose their courses with the following three requirements in mind.

- **EAST Requirement**: At least three of the eight electives must be East Asian Studies (EAST) courses at any level, Chinese (CHIN), Japanese (JAPN), or Korean (KREA) courses at the 1000-level and above may also count toward this requirement.
- **Breadth Requirement**: At least one of the eight electives must focus on an East Asian country or culture other than those associated with the language the student is using to satisfy the concentration's language requirement. A concentrator studying Chinese, for example, must choose at least one course that focuses on Korea and/or Japan.
- **Senior Seminar Requirement**: At least one of the eight elective courses must be an advanced research seminar, taken in the senior year.

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 American Studies, Art History, Economics, International Relations, and many others.

### Sample Electives offered by East Asian Studies

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAST 0500</td>
<td>Childhood and Culture in Japan</td>
</tr>
<tr>
<td>EAST 1010</td>
<td>From Basho to Banana: Four Centuries of Japanese Literature</td>
</tr>
<tr>
<td>EAST 1070</td>
<td>China Modern: An Introduction to the Literature of Twentieth-Century China</td>
</tr>
<tr>
<td>EAST 1100</td>
<td>Korean Culture and Film</td>
</tr>
<tr>
<td>EAST 1200</td>
<td>Pop, Political and Patrician: Culture in Japan and the Koreans</td>
</tr>
<tr>
<td>EAST 1270</td>
<td>China Through the Lens: History, Cinema, and Critical Discourse</td>
</tr>
</tbody>
</table>

For additional elective choices, visit http://brown.edu/academics/east-asian-studies/courses/more-course-offerings.

### Advanced Research Seminars

At least one of the eight elective courses must be an advanced research seminar, taken in the 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 the East Asian Studies 1950 series as well as designated seminars offered by faculty in such departments as History, Religious Studies, and Comparative Literature among others. The Department will provide a list of pre-approved advanced seminars every semester. Students wishing to add courses to that list must submit their requests in writing to the Director of Undergraduate Studies at the start of the semester.

### Sample advanced seminars offered by East Asian Studies

<table>
<thead>
<tr>
<th>Seminar Code</th>
<th>Seminar Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAST 1950G</td>
<td>Market Economy, Popular Culture, and Mass Media in Contemporary China</td>
</tr>
<tr>
<td>EAST 1950X</td>
<td>Queer Japan: Culture, History and Sexuality</td>
</tr>
</tbody>
</table>

### Honors

East Asian Studies offers qualified students, in their senior year, the opportunity to undertake a sustained research and writing project that, ideally, will result not merely in a long term paper, but in a piece of original scholarship. To enroll in the Honors Program, the student must be a senior East Asian Studies concentrator, with at least a high B average in concentration courses. Candidates for Honors are required to have developed a competence in an East Asian language sufficient to allow them to use East Asian language materials in carrying out their research. Students must also successfully obtain the support of at least two faculty members who will agree to serve as primary and secondary advisors for the thesis. Prospective writers submit a thesis prospectus, brief bibliography, and completed application forms (with signatures), ordinarily late in the student's six semester, to the Director of Undergraduate Studies, who provides the final permission to proceed. Synopses of successful thesis proposals will be distributed to Department faculty. Thesis writers enroll in advisor-specific sections of the thesis-writing course EAST 1930 (Fall) and EAST 1940 (Spring), meet regularly with their advisors over the course of both semesters, and submit final versions of their theses to the Department in mid-April. Advisors and students are required to provide updates of their progress to the Director of Undergraduate Studies at regular intervals.
The completed thesis is evaluated for Honors by the thesis director and by a second reader. In case of a difference of judgment between the two readers, a third opinion may be sought. The awarding of Honors in East Asian Studies will occur only if the Honors Thesis receives a final grade of A. If an A is not received, the student will still receive academic credit for EAST 1930-1940. Students are notified in mid-May whether the Department has recommended the awarding of Honors. Copies of readers' comments are provided to the student.

All graduating concentrators will present the results of their senior theses in the department's Senior Project Forum. The Forum will usually take place at the end of the spring semester, but may also occur at the end of the fall semester to accommodate mid-year graduates.

Double Concentrations

Students who are interested in developing a double concentration, including East Asian Studies as one of the two concentrations, should bear in mind that normally no more than two courses may be double-counted toward satisfying the course requirements of either of the two concentration programs involved.

Study Abroad

Concentrators are strongly encouraged, but not required, to study in East Asia for one or two semesters during their undergraduate years. Course credits earned abroad are generally transferable to Brown. However, a maximum of three courses taken abroad, of genuine intellectual substance and significantly related to East Asian Studies, may be considered for concentration credit.

Summary of requirements:

• Language study through the level of 0600 or the equivalent of Chinese, Japanese, or Korean

• Eight elective courses

  • At least three of the eight must be East Asian Studies (EAST) courses; Chinese (CHIN), Japanese (JAPN), or Korean (KREA) courses at the 1000-level and above may also count toward this requirement

  • At least one of the eight electives must focus on an East Asian country or culture other than those associated with the language the student is using to satisfy the concentration’s language requirement. A concentrator studying China, for example, would choose at least one course that focuses on Korea and/or Japan.

  • At least one of the eight must be an advanced research seminar, taken in the senior year.

  • EAST 1930 (Senior Thesis, Semester 1)- EAST 1940 (Senior Thesis, Semester 2) for Honors candidates only

Economics

Economics is the study of how individuals, businesses, and governments allocate resources to satisfy their objectives. The study of economics helps students understand markets, firms, financial organizations, and public debate about economic policy, including taxation, government expenditure, trade, globalization, health, and welfare. The concentration in Economics prepares students for graduate study in fields such as business and law, for graduate study leading to teaching and research in economics, and can be a steppingstone to employment in business, finance, non-profit, and government organizations. Students may choose either the standard or the professional track.

Students are required to begin with ECON 0110, an introductory course that stresses the economic problems of our society, and the vocabulary and principles of economic analysis. Intermediate level courses in microeconomics (ECON 1110 or ECON 1130), macroeconomics (ECON 1210), and econometrics (ECON 1620) followed by ECON 1629 (http://bulletin.brown.edu/the-college/concentrations/econ/Online%20Course) or ECON 1630 (http://bulletin.brown.edu/the-college/concentrations/econ/Online%20Course) round out the list of foundation courses for the concentration. Economics students must also fulfill a calculus requirement. The economics department sponsors a number of concentration options. The most popular is the standard economics concentration, described below. Three additional concentration options are administered jointly with other departments and are described separately under their respective titles. They are the concentrations in applied mathematics--economics, in mathematical economics, and in computer science--economics. The first two are especially recommended for students interested in graduate study in economics.

The department offers many of the required courses in an interdepartmental concentration called Business, Entrepreneurship and Organizations (BEO). BEO is jointly run by the departments of economics and sociology, and the school of engineering. BEO has three possible "tracks," of which the business economics track is most closely related to economics. Please contact the BEO administrator for more details, including information about advising in that concentration.

Standard Economics Concentration

Mathematics Course Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td></td>
</tr>
<tr>
<td>or ECON 0170</td>
<td>Essential Mathematics for Economics</td>
<td></td>
</tr>
</tbody>
</table>

or a higher-level math course.

Economics Course Requirements:

<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>3</td>
</tr>
<tr>
<td>or ECON 1110</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 1630</td>
<td>Econometrics I</td>
<td>1</td>
</tr>
</tbody>
</table>

At least five additional 1000-level Economics courses. 2

Total Credits: 11

1 Note that certain advanced economics courses may impose additional mathematical prerequisites. The standard mathematics requirement may be met through Advanced Placement tests, but "placing into" a higher level mathematics course than MATH 0100, without actually taking that higher level course, does not satisfy the requirement. The AP mathematics credit must appear on your Brown transcript.

2 Note that ECON 1960 (thesis) and ECON 1970 do not count for concentration credit.

3 If placing out of ECON 0110 with AP or IB test scores, one must take an additional 1000-level course (6 instead of 5).

All concentrators in economics programs are encouraged to consult their concentration advisors regularly. Economics concentrators who wish to study abroad should consult first with the department transfer credit advisor.

Honors

Students who wish to enroll in the honors program in economics should consult the department’s undergraduate guide (available on its web site) to obtain a complete description of the requirements. See the description of Capstone Projects there, as well. Courses taken to prepare an honors thesis are in addition to the regular concentration requirements.

Professional Track

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.

Education Studies

Education Studies takes a multidisciplinary, liberal arts approach to the field of education while focusing on the study of human learning and development, the history of education, teaching, school reform, and education policy. Concentrators choose an area of emphasis, either Policy-and-History or Human Development. Policy-and-History provides the historical underpinnings and intellectual skills for students to think critically about education issues in a number of settings. In the Human Development area, students learn about psychological, social, and cultural processes in a variety of contexts, including schools, families, peer groups, and neighborhoods, particularly in urban settings. Additionally, the Department offers teacher certification programs in elementary and secondary education. Finally, concentrators might also consider pursuing the Engaged Scholars Program, which allows students to connect theory and practice and gain hands-on experience working with community partners. Luther Spoehr (luther_spoehr@brown.edu) is the Director of Undergraduate Studies, and advisor to all seniors and to juniors on the Policy-and-History track. Yoko Yamamoto (yoko_yamamoto@brown.edu) advises juniors on the Human Development track and all sophomores.

Concentration Requirements

The concentration in Education Studies requires a total of 10 courses. At least eight must be taken in the Education Department at Brown University. One course must either be a qualitative methods course (EDUC 1100) or a quantitative methods course (EDUC 1110) or an approved equivalent in another department. Five courses must be taken in one of the two Areas of Emphasis, either Human Development or Policy-and-History. Electives may be additional Brown University Education courses, courses chosen from a list of pre-approved Brown University courses outside the Education Department, or courses at Brown or other universities that receive specific approval in advance from the Director of Undergraduate Studies.

Students in the Human Development Area of Emphasis should note that because they must take a foundational course in History and another in Policy, they will need only two additional Electives to meet the ten-course requirement. Students in the Policy-and-History Area of Emphasis must take one foundational course in Human Development plus one additional Education course outside Policy-and-History, plus two Electives. Electives may include any Education courses taken outside the Area of Emphasis or approved courses taken in other departments.

Concentrators are required to take at least one foundational course in ea ch of four Core Categories: Human Development, History, Policy, and Research Methods. Foundational courses taken in the Area of Emphasis count toward the total of 5 required for that Area of Emphasis.

Foundational courses available in each of the required Core Categories:

**Foundational Courses**

**Human Development**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 0800</td>
<td>Introduction to Human Development and Education</td>
</tr>
</tbody>
</table>

**History**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1020</td>
<td>The History of American Education</td>
</tr>
<tr>
<td>EDUC 1200</td>
<td>History of American School Reform</td>
</tr>
</tbody>
</table>

**Policy**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1060</td>
<td>Politics and Public Education</td>
</tr>
<tr>
<td>EDUC 1130</td>
<td>Economics of Education I</td>
</tr>
</tbody>
</table>

**Research Methods**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>EDUC 1110</td>
<td>Introductory Statistics for Education</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
</tbody>
</table>

**Courses in Human Development Area of Emphasis**

5 Courses in Human Development (from the list below) 5

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 0410A</td>
<td>New Faces, New Challenges: Immigrant Students in U.S. Schools</td>
</tr>
<tr>
<td>EDUC 0410E</td>
<td>Empowering Youth: Insights from Research on Urban Adolescents</td>
</tr>
<tr>
<td>EDUC 0600</td>
<td>Youth and Civic Engagement</td>
</tr>
<tr>
<td>EDUC 0620</td>
<td>Cradle of Inequality</td>
</tr>
<tr>
<td>EDUC 0800</td>
<td>Introduction to Human Development and Education</td>
</tr>
<tr>
<td>EDUC 1270</td>
<td>Adolescence in Social Context</td>
</tr>
<tr>
<td>EDUC 1430</td>
<td>Social Psychology of Race, Class, and Gender</td>
</tr>
<tr>
<td>EDUC 1450</td>
<td>The Psychology of Teaching and Learning</td>
</tr>
<tr>
<td>EDUC 1580</td>
<td>Cross-Cultural Perspectives on Child Development</td>
</tr>
<tr>
<td>EDUC 1700</td>
<td>The Asian American Experience in Higher Education</td>
</tr>
<tr>
<td>EDUC 1710</td>
<td>History and Theories of Child Development</td>
</tr>
<tr>
<td>EDUC 1750</td>
<td>Contemporary Social Problems: Views from Human Development and Education</td>
</tr>
<tr>
<td>EDUC 1850</td>
<td>Moral Development and Education</td>
</tr>
<tr>
<td>EDUC 1860</td>
<td>Social Context of Learning and Development</td>
</tr>
<tr>
<td>EDUC 1870</td>
<td>Education and Human Development in East Asia</td>
</tr>
<tr>
<td>EDUC 1880</td>
<td>Human Development in the Context of Immigration</td>
</tr>
<tr>
<td>EDUC 1890</td>
<td>Family Engagement in Education</td>
</tr>
</tbody>
</table>

1 Foundational course in History 1
1 Foundational course in Policy 1
1 Methods course 1
2 Electives 2

Total Credits 10

**Courses in Policy-and-History Area of Emphasis**

5 Courses in Policy-and-History (from the list below) 5

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 0400</td>
<td>The Campus on Fire: American Colleges and Universities in the 1960's</td>
</tr>
<tr>
<td>EDUC 0410B</td>
<td>Controversies in American Education Policy: A Multidisciplinary Approach</td>
</tr>
<tr>
<td>EDUC 0410G</td>
<td>The Afterschool Hours</td>
</tr>
</tbody>
</table>
students who complete capstones will be recognized at the department graduation ceremony and will have the opportunity to present their work at a conference in the spring of their senior year. Through capstones, students have the opportunity to work closely with a faculty member in an area of their interest and are able to reflect on and extend their learning in the concentration.

**Undergraduate Teacher Education Program (regardless of student start date)**

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 (UTEP). 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:

- **EDUC 0900** Fieldwork and Seminar in Secondary Education
- **EDUC 1450** The Psychology of Teaching and Learning
- **EDUC 1070A** Student Teaching: English or **EDUC 1070B** Student Teaching: History and Social Studies or **EDUC 1070C** Student Teaching: Science
- **EDUC 1080A** Analysis of Teaching: English or **EDUC 1080B** Analysis of Teaching: History and Social Studies or **EDUC 1080C** Analysis of Teaching: Science
- **EDUC 2060A** Methods of Teaching: English or **EDUC 2060B** Methods of Teaching: History and Social Studies or **EDUC 2060C** Methods of Teaching: Science
- **EDUC 2090** Literacy Across the Curriculum

An Education elective

**Egyptology and Assyriology**

The concentration in Egyptology and Assyriology offers students a choice of two tracks: Assyriology 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 Assyriology also collaborates with Brown’s Joukowsky Institute for Archaeology and the Ancient World.
**Assyriology 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 Assyriology (ASYR) track requires a total of at least ten (10) courses that are determined in the following way:

- **Introductory courses:**
  - ASYR 0800: The Cradle of Civilization? An Introduction to the Ancient Near East
  - or ARCH 0370: Before the Islamic State: The Archaeologies of Ancient Mesopotamia
  - or ARCH 1600: Archaeologies of the Near East
  - ASYR 1000: Introduction to Akkadian
  - ASYR 1010: Intermediate Akkadian

- **Foundational Courses (at least one course from each of the following three areas):**
  - History and Culture of Ancient Western Asia: 1
  - ASYR 1100: Imagining the Gods: Myths and Myth-making in Ancient Mesopotamia (WRIT)
  - ASYR 1500: Ancient Babylonian Magic and Medicine
  - ASYR 2310A: Assyriology I (WRIT)
  - ASYR 2310C: Assyriology II (WRIT)
  - ASYR 2600: Topics in Cuneiform Studies

- **Ancient Scholarship in Western Asia:** 1
  - ASYR 1600: Astronomy Before the Telescope
  - ASYR 1700: Astronomy, Divination and Politics in the Ancient World (WRIT)
  - ASYR 1750: Divination in Ancient Mesopotamia (WRIT)
  - ASYR 2310A: Ancient Scientific Texts: Akkadian

- **Archaeology of Ancient Western Asia:** 1
  - ARCH 1200F: City and the Festival: Cult Practices and Architectural Production in the Ancient Near East (WRIT)
  - ARCH 1200I: Material Worlds: Art and Agency in the Near East and Africa
  - ARCH 1810: Under the Tower of Babel: Archaeology, Politics, and Identity in the Modern Middle East (WRIT)
  - ARCH 2010C: Architecture, Body and Performance in the Ancient Near Eastern World (WRIT)
  - ARCH 2300: The Rise of the State in the Near East

- **Depth Requirement:** At least two additional courses offered in ASYR 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 Assyriology, 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:**
  - EGYT 1310 & EGYT 1320: Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian I) and Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian II)
  - EGYT 1430 & EGYT 1440: History of Egypt I and History of Egypt II
  - ARCH 0150: Introduction to Egyptian Archaeology and Art
  - EGYT 1420: Ancient Egyptian Religion and Magic or ARCH 1625: Temples and Tombs: Egyptian Religion and Culture

- **Depth Courses:**
  - EGYT 1330: Selections from Middle Egyptian Hieroglyphic Texts
  - EGYT 1410: Ancient Egyptian Literature

- **Breadth Course - Any course covering the ancient Near East or Mediterranean world outside Egypt, such as:**
  - ASYR 0800: The Cradle of Civilization? An Introduction to the Ancient Near East or ARCH 1600: Archaeologies of the Near East

- **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 Assyriology, the Joukowsky Institute for Archaeology and the Ancient World, Religious Studies, Studies, Classics, Judaic Studies, Anthropology, History of Art and Architecture, History, or Philosophy. Concentrators are welcome to take most courses offered by Egyptology and Assyriology (EGYT and ASYR), 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.

**Total Credits:** 10

1. Required for all students pursuing the Egyptology track.
2. Or an EGYT or ARCH course in material culture.

**Capstone**

All concentrators in Egyptology and Assyriology 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 in Egyptology and Assyriology

1. Becoming an honors candidate

Students who wish to consider pursuing honors should meet with the Undergraduate Concentration Advisor in the first half of their sixth semester.

Eligibility is dependent on:
- Being in good standing
- Having completed at least two thirds of the concentration requirements by the end of the sixth semester.
- Having earned two-thirds "quality grades" in courses counted towards the concentration. 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.

To pursue honors candidacy, eligible students must:
- Secure a faculty advisor and discuss plans for the proposed thesis project well before the established deadline; this can be done by email when a student is abroad.
- Prepare a thesis prospectus (see below).
- Submit the prospectus to the advisor, one other proposed faculty reader (at least one of the readers must be in the department) and the department chair no later than the first week of the seventh semester.

The structure of a thesis prospectus:

An honors thesis in Egyptology or Assyriology is a substantial piece of research with some degree of originality that demonstrates the student's ability to frame an appropriate question and deal critically with the range of original and secondary sources. A thesis prospectus is a short analytical document consisting of several parts. It will normally include a concise and focused research question; a justification for that question that demonstrates familiarity with previous research on the topic; a project description that includes a discussion of the types of evidence available and appropriate to answering the proposed question; a discussion of methods of collecting and analyzing that evidence; a conclusion that returns to the research question and assures the reader that the project will add value to our understanding of the topic; and a bibliography. The prospectus will be evaluated on the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Originality: An honors thesis in Egyptology or Assyriology is expected to add to existing scholarship. The thesis must be based on close work with primary sources (usually in publication rather than in person), supplemented by critical engagement with a substantial amount of relevant secondary literature. While the resulting study is not necessarily expected to be ground-breaking, it may engage with a well-studied topic, it will usually include a new insight into or interpretation of the material considered.</td>
</tr>
<tr>
<td>4</td>
<td>Scope: An honors thesis is not a book or dissertation. It is, however, a very serious piece of research and writing for which two dedicated study courses have provided substantial time to the honors student. The question upon which the honors thesis is based should be focused enough to allow an in-depth treatment, generally in under 100 pages or 30,000 words (exclusive of bibliography and illustrations). Appropriate length will vary considerably depending on the topic itself and the nature of the primary sources being considered, particularly if substantial translation of ancient textual sources is required.</td>
</tr>
<tr>
<td>3</td>
<td>Argument: The thesis should present a sustained analytic argument in answer to its structuring question. A thesis should not be primarily descriptive or narrative in nature. Each chapter should contain a sub-argument that is clearly related to the overall argument of the thesis. The significance of the argument and its relationship to prior scholarship should be clearly articulated. Honors theses are not expected to demonstrate comprehensive familiarity with the secondary literature, but they are expected to engage critically and maturely with important works on the defined topic.</td>
</tr>
<tr>
<td>2</td>
<td>Methodology: Egyptology and Assyriology are very broad fields, and the appropriate methods will be determined in conjunction with the thesis advisor on the basis of the questions and types of evidence - textual, archaeological, art historical - under consideration. With very few exceptions the methodology of the thesis is expected to be conventional rather than innovative, rooted in the accepted practices of the field in question.</td>
</tr>
</tbody>
</table>

Organization and writing:
- Twice-monthly meetings with the thesis advisor and once-monthly meetings with the second reader. These meetings will be scheduled at the beginning of each term.
- Submission of a comprehensive outline to both readers no later than October 15 (for May graduates)
- Regular submission of drafts. A partial draft including a complete version of at least one chapter or section is due before Reading Period of the seventh semester.
- A complete draft is due to both readers no later than March 15 (for May graduates).
- The revised final thesis is due in both electronic and physical form to both readers and department chair April 5 (for May graduates).

Failure to meet any deadline will result in automatic termination of the honors process. No extensions will be granted. If a thesis is turned in late but before the end of the term, credit and grade for the Independent Study may still be granted.

2. Evaluating the submitted work of honors candidates

In order to receive honors a student must be found to have:
- Remained in good academic standing throughout the academic year.
- Not violated the Academic Code of Conduct during honors candidacy.
- Complete or be about to complete all concentration requirements.
- Produced a thesis that is judged by the readers to meet the department's expectations for honors work (see below), and turned it in by the established deadlines.
- Successfully defended the thesis during a half hour public presentation held during the final exam period of the eighth semester.

Students who submit theses that are deemed to fall short of the expectations will graduate without honors. In that case, the theses will count as a capstone project.

4. Expectations for honors theses:

- Originality: An honors thesis in Egyptology or Assyriology is expected to add to existing scholarship. The thesis must be based on close work with primary sources (usually in publication rather than in person), supplemented by critical engagement with a substantial amount of relevant secondary literature. While the resulting study is not necessarily expected to be ground-breaking, it may engage with a well-studied topic, it will usually include a new insight into or interpretation of the material considered.
- Scope: An honors thesis is not a book or dissertation. It is, however, a very serious piece of research and writing for which two dedicated study courses have provided substantial time to the honors student. The question upon which the honors thesis is based should be focused enough to allow an in-depth treatment, generally in under 100 pages or 30,000 words (exclusive of bibliography and illustrations). Appropriate length will vary considerably depending on the topic itself and the nature of the primary sources being considered, particularly if substantial translation of ancient textual sources is required.
- Argument: The thesis should present a sustained analytic argument in answer to its structuring question. A thesis should not be primarily descriptive or narrative in nature. Each chapter should contain a sub-argument that is clearly related to the overall argument of the thesis. The significance of the argument and its relationship to prior scholarship should be clearly articulated. Honors theses are not expected to demonstrate comprehensive familiarity with the secondary literature, but they are expected to engage critically and maturely with important works on the defined topic.
- Methodology: Egyptology and Assyriology are very broad fields, and the appropriate methods will be determined in conjunction with the thesis advisor on the basis of the questions and types of evidence - textual, archaeological, art historical - under consideration. With very few exceptions the methodology of the thesis is expected to be conventional rather than innovative, rooted in the accepted practices of the field in question.
An honors thesis must be well organized and written. It should include an introduction and conclusion as well as well-considered chapters that allow the reader to follow the line of reasoning easily. The relationship of any section to the larger whole should be clear, and segues should help the reader move between sections. Writing should be grammatically correct, well copy-edited, professional, and consistent. Citations and bibliography must be in an accepted style as determined in consultation with the advisor.

Engineering

The concentration in Engineering equips students with a solid foundation for 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 Bachelor of Arts (A.B.) program and nine Bachelor of Science (Sc.B.) degree program tracks. Of these, Sc.B. programs in biomedical, chemical and biochemical, computer, electrical, materials, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET (http://www.abet.org). Sc.B. degree programs in environmental engineering and engineering physics are also offered, but they are not accredited by ABET. (Note: Students interested in structural engineering entering in the class of 2017 and beyond may pursue a Structures track within the Mechanical Engineering program). Other programs leading to the Sc.B. or A.B. degrees in Engineering may be designed in consultation with a faculty advisor. These programs must meet the general requirements for concentration programs in the School of Engineering. Students interested in an individualized program should consult with an Engineering faculty member willing to serve as an advisor and obtain the approval of the Engineering Concentration Committee. Engineering students with a particular interest in using their technical skills for the public benefit might also consider the Engaged Scholars Program (https://www.brown.edu/academics/engineering/undergraduate-study/engaged-scholars-program).

Please note that all student concentration forms must be approved by the Engineering Concentration Committee, which reviews them for compliance with all relevant program and accreditation requirements.

Mathematics

Mathematics 0190, 0200 is the preferred sequence of courses to be taken in the freshman year. Students who would prefer a more introductory level calculus course may start in MATH 0100 and take MATH 0200 or MATH 0180 in second semester. Students without one year of secondary school level preparation in calculus should take MATH 0090, MATH 0100 in their first year, and should begin their sequence of engineering courses with ENGN 0030 in sophomore year. The courses APMA 0330 & APMA 0340 (Methods of Applied Math I, II) can be taken in the sophomore year as well.

Advanced Placement

Students who have taken Advanced Placement courses in high school and/or have shown proficiency through advanced placement examinations are often able to start at a higher level than suggested by the standard programs below. However, please note that Advanced Placement credit cannot be used to satisfy any concentration requirements. For example, our Sc.B. programs specify that students must take 4 semesters of math while enrolled here at Brown, beginning with MATH 0190 or MATH 0170. If a student comes in with advanced placement credit (e.g. placing out of MATH 0190 or MATH 0200), he/she is strongly recommended to take a higher level math course as a replacement. Examples of such courses are MATH 0520 (Linear Algebra), MATH 1260 (Complex Analysis), MATH 1610 (Probability), MATH 1620 (Statistics), APMA 1170 (Numerical Analysis), APMA 1210 (Operations Research), or APMA 1650 (Statistical Inference). However, the student with advanced placement credit for MATH 0190 or MATH 0200 also has the option of replacing the math course with an advanced-level science course, subject to the approval of the concentration advisor.

Transfer Credit

Students who have successfully completed college courses elsewhere may apply to the University for transfer credit. (See the “Study Elsewhere” section of the University Bulletin for procedures, or contact the Dean of the College.) Transfer courses that are used to meet Engineering concentration requirements must be approved by the student’s concentration advisor, and must be described briefly on the student’s electronic concentration form. Transfer courses that are determined by the concentration advisor to be substantially equivalent to a required Brown course automatically fulfill concentration requirements. In rare cases, students may petition the concentration committee to use courses that do not have an equivalent offered at Brown to meet a concentration requirement. Substitutions of this nature can only be approved if the student’s overall program meets published educational outcomes for the concentration and has sufficient basic science, mathematics, and engineering topics courses to meet relevant accreditation requirements. Students should consult their concentration advisor for assistance with drafting a petition. The decision whether to award concentration credit is made by majority vote of the Engineering Concentration Committee.

Substitutions for Required Courses

A student may petition the Concentration Adviser to substitute a course in place of a requirement. Such substitutions can only be approved if the student’s modified program continues to meet the published educational outcomes for the concentration, and has sufficient basic science, mathematics, and engineering topics courses to meet accreditation requirements. If the substitution involves taking an equal or higher level course in substantially the same area, whether at Brown or elsewhere, it can be approved by the Concentration Adviser. (For courses taken elsewhere, the credit must be officially transferred.) Students wishing to make substitutions of a broader nature should consult their Concentration Adviser for assistance with drafting their petition to the Engineering Concentration Committee, which may be approved by a majority vote.

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 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 prerequisites of the 1000-level courses. Please note that this A.B. degree program is not accredited by ABET.

Not all engineering courses may 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 0090, ENGN 0090, ENGN 0900C, ENGN 0930A, ENGN 0930C, ENGN 1010. Therefore, the program of study 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 an Engineering Concentration Advisor and the Chair of the Engineering Concentration Committee.

Standard programs for the Sc.B. degree

All Bachelor of Science (Sc.B.) program tracks build upon a common core of engineering knowledge and skills applicable across all engineering disciplines. The goal of this engineering core curriculum is to prepare students in engineering in an age of rapidly changing technology. Two-thirds of this four-year program consists of a core of basic mathematics, physical sciences and engineering sciences common to all branches of engineering, including a thorough grounding in programming and technical problem solving. This core provides our graduates with the basis of theory, design, and analysis that will enable them to adapt to whatever may come along during their careers.

At the same time, the core courses assist students in making informed choices in determining their areas of specialization, at the end of their sophomore year. To this end, first-year students are given an introduction to engineering - featuring case studies from different disciplines in
engineering as well as guest speakers from industry. This aspect of the program is different from that at many other schools where students are expected to select a specific branch of engineering much earlier in their academic program.

In addition, all Sc.B. programs in Engineering must be complemented by at least four courses in humanities and social sciences. The minimum four-course humanities and social sciences requirement for the Sc.B. in Engineering cannot be met by advanced placement credit.

**Special Concentrations**

In addition to the standard programs described above, students may also petition the Engineering Concentration Committee to pursue a special engineering Sc.B. degree of their own design. Such special Sc.B. programs are not ABET-accredited. Students with a special concentration will receive an Sc.B. degree in engineering, but a specific area of specialization will not be noted on their transcript. A special Sc.B. concentration is intended to prepare graduates for advanced study in engineering or for professional practice, but in an area that is not covered by one of the existing Sc.B. programs. Accordingly, special concentration programs are expected to consist of a coherent set of courses with breadth, depth and rigor comparable to an accredited degree. A total of 21 engineering, mathematics, and basic science courses are required.

The program must include at least 3 courses in mathematics, at least 2 courses in physical or life sciences; and at least 12 courses in engineering. At least five of the engineering courses must be upper level courses, and one must be a capstone design course or independent study, which must be advised or co-advised by a member of the regular engineering faculty. Note that not all engineering courses may be used to meet Sc.B. requirements: for example, the courses not allowed to count toward the A.B., will not qualify. Petitions should be prepared in consultation with an engineering faculty adviser, who will submit the petition to the Engineering Concentration Committee. Petitions must include: (i) a statement of the objectives of the degree program, and an explanation of how the courses in the program meet these objectives; (ii) course descriptions for any courses in the program that are not part of standard ScB engineering concentrations; (iii) a detailed description of any independent study courses used for concentration credit, signed by the faculty adviser for this course; and (iv) an up-to-date internal transcript.

**Professional Tracks**

While we do not give course credit for internships, we officially recognize their importance via the optional Professional Tracks. The requirements for the professional tracks include all those of the standard tracks, as well as the following: Students must complete two full-time professional experiences, lasting two to four months each (or two part-time experiences of equivalent total effort), doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be done at a university under the supervision of a faculty member. For the work to be considered related to a concentration program, the job responsibilities must make use of the material from one or more courses of the concentration (regardless of whether the student has taken those courses or not at the time of the internship). On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts:

- Describe the organization you worked in and the nature of your responsibilities.
- Which courses were put to use in your work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your work experience?
- What are the topics from these courses that would have helped you if you had been more familiar with them?
- What topics would have been helpful in preparation for this work experience that you did not learn at Brown?
- 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 something you would like to continue doing once you graduate? Explain.
- Would you recommend your work experience to other Brown students? Explain.

The reflective essays are subject to the approval of the student's concentration adviser.

**Chemical and Biochemical Engineering Track:**

The Chemical and Biochemical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The education objectives of the Chemical and Biochemical Engineering program are to prepare graduates: (1) to pursue productive scientific and technical careers, beginning with entry-level engineering positions in industry, or graduate study in chemical or biochemical engineering or related fields; or to successfully pursue other careers that benefit from the analytical or quantitative skills acquired through the Brown CBE Program; (2) to effectively apply the principles of chemical and biochemical engineering, problem-solving skills, and critical and independent thinking, to a broad range of complex, multidisciplinary technological and societal problems; (3) to communicate effectively, both orally and in writing, to professionals and audiences of diverse backgrounds, and to pursue technical approaches and innovations that address the needs of society in an ethical, safe, sustainable, and environmentally responsible manner. The student outcomes of this program are the ABET (a) - (k) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs" (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

1. Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0031</td>
<td>Honors Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0410</td>
<td>Materials Science</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>
</tr>
<tr>
<td>ENGN 0720</td>
<td>Thermodynamics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0810</td>
<td>Fluid Mechanics</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>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0180</td>
<td>Intermediate Calculus</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 0360</td>
<td>Applied Partial Differential Equations</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Upper-Level Chemical & Biochemical Engineering Curriculum:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1110</td>
<td>Transport and Biotransport Processes</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1120</td>
<td>Chemical and Biochemical Reactor Design</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1130</td>
<td>Phase and Chemical Equilibria</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1710</td>
<td>Heat and Mass Transfer</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

Advanced Chemistry elective course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 0400</td>
<td>Biophysical and Bioinorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 0500</td>
<td>Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

Advanced Natural Sciences elective course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
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</table>

3. Capstone Design Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>
ENGN 1140  Chemical Process Design  1

*In addition to program requirements above, students must take four courses in the humanities and social sciences.

Total Credits  21

1  Note: ENGN 1120 and 1130 are only offered in alternate years.
2  An advanced chemistry course approved by concentration advisor; the following courses are pre-approved for this requirement.
3  An advanced course in the natural sciences approved by the concentration advisor. For suggestions of acceptable courses that fulfill this requirement, please see the concentration advisor.

Computer Engineering Track:

The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The education objectives of the Computer Engineering program are to prepare graduates: (1) to pursue distinctive multidisciplinary scientific and technical careers beginning with either entry-level computer engineering positions in industry or graduate study in computer engineering and related fields; (2) to participate on multidisciplinary teams that cooperate in applying problem-solving skills and critical and independent thinking to a broad range of projects that can produce the technical innovations aimed at satisfying the future needs of society. The student outcomes of this program are the ABET (a) - (k) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs" (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

The Computer Engineering concentration shares much of the core with the other engineering programs, but is structured to include more courses in computer science, and a somewhat different emphasis in mathematics.

1. Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0031</td>
<td>Honors Introduction to Engineering</td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 1655</td>
<td>Statistical Inference I</td>
<td></td>
</tr>
<tr>
<td>or CSCI 1450</td>
<td>Probability and Computing</td>
<td></td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/ Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
<td></td>
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<td>or MATH 0350</td>
<td>Honors Calculus</td>
<td></td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
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</tr>
<tr>
<td>or APMA 1170</td>
<td>Introduction to Computational Linear Algebra</td>
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<tr>
<td>or APMA 1710</td>
<td>Information Theory</td>
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<tr>
<td>or CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability</td>
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<tr>
<td>or CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
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<tr>
<td>or MATH 1260</td>
<td>Complex Analysis</td>
<td></td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0410</td>
<td>Materials Science</td>
<td></td>
</tr>
<tr>
<td>or NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
<td></td>
</tr>
</tbody>
</table>

Select one of the following series (other CSCI courses subject to approval):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td>and Introduction to Algorithms and Data Structures</td>
</tr>
</tbody>
</table>
CSCI 0330 Introduction to Computer Systems
CSCI 1230 Introduction to Computer Graphics
CSCI 1270 Database Management Systems
CSCI 1300 User Interfaces and User Experience
CSCI 1320 Creating Modern Web Applications
CSCI 1380 Distributed Computer Systems
CSCI 1410 Artificial Intelligence
CSCI 1480 Building Intelligent Robots
CSCI 1570 Design and Analysis of Algorithms
CSCI 1600 Real-Time and Embedded Software
CSCI 1660 Introduction to Computer Systems Security
CSCI 1670 Operating Systems
CSCI 1680 Computer Networks
CSCI 1730 Design and Implementation of Programming Languages
CSCI 1760 Multiprocessor Synchronization
CSCI 1900 csciStartup

Select up to one interdisciplinary science course

CLPS 1491 Neural Modeling Laboratory
CLPS 1520 Computational Vision
ENGN 1450 Properties and Processing of Electronic Materials
NEUR 2110 Statistical Neuroscience

3. Capstone Design

ENGN 1650 Embedded Microprocessor Design
or ENGN 1000 Projects in Engineering Design I
or ENGN 1001 Projects in Engineering Design

4. General Education Requirement: At least four approved courses must be taken in humanities and social sciences

Total Credits: 21

1. Core Courses:

ENGN 0030 Introduction to Engineering
or ENGN 0031 Honors 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
or ENGN 0160 Introduction to Algorithms and Data Structures
or ENGN 0180 Computer Science: An Integrated Introduction
CHEM 0330 Equilibrium, Rate, and Structure

MATH 0190 Advanced Placement Calculus (Physics/Engineering)
or MATH 0170 Advanced Placement Calculus
MATH 0200 Intermediate Calculus (Physics/Engineering)
or MATH 0180 Intermediate Calculus
or MATH 0350 Honors Calculus

APMA 0330 Methods of Applied Mathematics I, II
or APMA 0350 Applied Ordinary Differential Equations
APMA 0340 Methods of Applied Mathematics I, II
or APMA 0360 Applied Partial Differential Equations I
or APMA 1650 Statistical Inference I
or MATH 0520 Linear Algebra
or MATH 0540 Honors Linear Algebra

CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
or CSCI 0040 Introduction to Scientific Computing and Problem Solving
or CSCI 0170 Computer Science: An Integrated Introduction
or CSCI 0190 Accelerated Introduction to Computer Science
or ENGN 1931Z Interfaces, Information and Automation

2. Upper-Level Electrical Engineering Curriculum

ENGN 1570 Linear System Analysis
ENGN 1620 Analysis and Design of Electronic Circuits
ENGN 1630 Digital Electronics Systems Design
PHYS 0790 Physics of Matter
or PHYS 1410 Quantum Mechanics A

3. Electrical Engineering Specialization - Complete at least three courses from the following groups:

At least one advanced Electrical Engineering foundations course:

ENGN 1230 Instrumentation Design
ENGN 1580 Communication Systems
ENGN 1590 Introduction to Semiconductors and Semiconductor Electronics
ENGN 1600 Design and Implementation of VLSI Systems
ENGN 1610 Image Understanding
ENGN 1640 Design of Computing Systems

Up to two other Electrical Engineering Courses

ENGN 1220 Neuroengineering
ENGN 1560 Optics
ENGN 1650 Embedded Microprocessor Design
ENGN 1680 Design and Fabrication of Semiconductor Devices
ENGN 1690 Photonics and Applications
ENGN 1930B Biomedical Optics
ENGN 1931A Photovoltaics Engineering
ENGN 1931F Introduction to Power Engineering
ENGN 1931I Design of Robotic Systems
ENGN 1931Y Control Systems Engineering
ENGN 1931Z Interfaces, Information and Automation

Up to two interdisciplinary engineering science course:

Electrical Engineering Track:
The Electrical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The education objectives of the Electrical Engineering program are to prepare graduates:

1. to pursue distinctive multidisciplinary scientific and technical careers beginning with either entry-level electrical engineering positions in industry or graduate study in electrical engineering and related fields;
2. to participate on multidisciplinary teams that cooperate in applying problem-solving skills and critical and independent thinking to a broad range of projects that can produce the technical innovations aimed at satisfying the future needs of society. The student outcomes of this program are the ABET (a) - (k) Student Outcomes as defined by the “ABET Criteria for Accrediting Engineering Programs” (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

1. Core Courses:

ENGN 0030 Introduction to Engineering
ENGN 0040 Dynamics and Vibrations
ENGN 0410 Materials Science

2. Upper-Level Electrical Engineering Curriculum

ENGN 1570 Linear System Analysis
ENGN 1620 Analysis and Design of Electronic Circuits
ENGN 1630 Digital Electronics Systems Design
PHYS 0790 Physics of Matter
or PHYS 1410 Quantum Mechanics A

3. Electrical Engineering Specialization - Complete at least three courses from the following groups:

At least one advanced Electrical Engineering foundations course:

ENGN 1230 Instrumentation Design
ENGN 1580 Communication Systems
ENGN 1590 Introduction to Semiconductors and Semiconductor Electronics
ENGN 1600 Design and Implementation of VLSI Systems
ENGN 1610 Image Understanding
ENGN 1640 Design of Computing Systems

Up to two other Electrical Engineering Courses

ENGN 1220 Neuroengineering
ENGN 1560 Optics
ENGN 1650 Embedded Microprocessor Design
ENGN 1680 Design and Fabrication of Semiconductor Devices
ENGN 1690 Photonics and Applications
ENGN 1930B Biomedical Optics
ENGN 1931A Photovoltaics Engineering
ENGN 1931F Introduction to Power Engineering
ENGN 1931I Design of Robotic Systems
ENGN 1931Y Control Systems Engineering
ENGN 1931Z Interfaces, Information and Automation

Up to two interdisciplinary engineering science course:
Environmental Engineering Track:

The Environmental Engineering program began in 2013. The program has not been reviewed by ABET and is not ABET-accredited. The education objectives of the Environmental Engineering program are to prepare graduates: (1) to apply in practice the knowledge obtained in school within industry, government, or private practice; (2) to work toward sustainable solutions in a wide array of technical specialties; (3) to pursue lifelong learning through continuing education and/or advanced degrees in environmental engineering. The student outcomes of this program are the (a) - (k) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs" (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

1. Core Courses:
   - ENGN 0030 Introduction to Engineering
   - ENGN 0040 Dynamics and Vibrations
   - ENGN 0410 Materials Science
   - ENGN 0490 Fundamentals of Environmental Engineering
   - ENGN 0510 Electricity and Magnetism
   - ENGN 0720 Thermodynamics
   - ENGN 0810 Fluid Mechanics
   - BIOL 0200 The Foundation of Living Systems
   - CHEM 0330 Equilibrium, Rate, and Structure
   - MATH 0190 Advanced Placement Calculus (Physics/Engineering)
   - MATH 0170 Advanced Placement Calculus
   - MATH 0200 Intermediate Calculus (Physics/Engineering)
   - MATH 0180 Intermediate Calculus

5. General Education Requirement: At least four approved courses must be taken in humanities and social sciences

Total Credits 21

1. Or 1000-level Applied Mathematics or Mathematics course subject to Concentration Advisor Approval
2. Or 1000-level Physics course subject to Concentration Advisor approval.
3. Or 2000-level Electrical Engineering graduate course (such as ENGN 2500, ENGN 2520, ENGN 2530, ENGN 2560, ENGN 2912K).
4. Or Computer Science course beyond CSCI 0150/CSCI 0170 subject to Concentration Advisor approval
5. Subject to approval by the concentration advisor, an independent study course (ENGN 1970/ ENGN 1971) may be used to fulfill the Engineering Capstone Design requirement. To qualify for such approval, the independent study project must: (1) contain a significant and definable design component; (2) be based on the knowledge and skills acquired in earlier course work, (3) incorporate appropriate engineering standards; and (4) address multiple realistic constraints.
### Materials Engineering Track:
The Materials Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The education objectives of the Materials Engineering program are to prepare graduates: (1) to pursue multidisciplinary scientific and technical careers beginning with entry-level engineering positions in industry or graduate study in materials science and engineering and related fields; (2) to apply an engineering problem-solving approach combined with a broad appreciation for the liberal arts to inform and develop their understanding of current societal needs and values to achieve leadership positions in their chosen fields of endeavor. The student outcomes of this program are the (a) - (k) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs" (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

#### 1. Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0031</td>
<td>Honors Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0410</td>
<td>Materials Science</td>
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<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
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</tr>
<tr>
<td>ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
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<td>ENGN 0720</td>
<td>Thermodynamics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0310</td>
<td>Mechanics of Solids and Structures</td>
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<td>or ENGN 0810</td>
<td>Fluid Mechanics</td>
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</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
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<tr>
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<td>Advanced Placement Calculus (Physics/Engineering)</td>
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<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
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<td>Applied Partial Differential Equations I</td>
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<td>CHEM 0350</td>
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<tr>
<td>or CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem</td>
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<td>or CSCI 0150</td>
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#### 2. Upper-Level Engineering Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGN 1410</td>
<td>Physical Chemistry of Solids</td>
<td>1</td>
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<tr>
<td>ENGN 1420</td>
<td>Kinetics Processes in Materials Science and</td>
<td>1</td>
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<tr>
<td>ENGN 1440</td>
<td>Mechanical Properties of Materials</td>
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<td>PHYS 0790</td>
<td>Physics of Matter</td>
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<td>or CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
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<tr>
<td>ENGN 1450</td>
<td>Properties and Processing of Electronic Materials</td>
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</table>

### Mechanical Engineering Track:
The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The education objectives of the Mechanical Engineering program are to prepare graduates: (1) to pursue scientific and technical careers beginning with either graduate study in mechanical engineering and related fields or mechanical engineering positions in industry; (2) to work on interdisciplinary teams that make use of the engineering problem solving method and a broad background in the liberal arts to address societal needs. The student outcomes of this program are the (a) - (k) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs" (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

#### 1. Core Courses:

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</tr>
</tbody>
</table>

#### Total Credits:

- **ENGN 1470**: Structure and Properties of Nonmetallic Materials
- **ENGN 1480**: Metallic Materials
- **ENGN 1490**: Biomaterials

### Notes:

1. Subject to approval by the concentration advisor, an independent study course (ENGN1970/1971) may be used to fulfill the Engineering Capstone Design requirement. To qualify for such approval, the independent study project must: (1) contain a significant and definable design component; (2) be based on the knowledge and skills acquired in earlier course work, (3) incorporate appropriate engineering standards; and (4) address multiple realistic constraints. To request approval, please complete the online form available at: http://www.brown.edu/academics/engineering/undergraduate-study

2. Subject to approval by the concentration advisor, an independent study course (ENGN1970/1971) may be used to fulfill the Engineering Capstone Design requirement. To qualify for such approval, the independent study project must: (1) contain a significant and definable design component; (2) be based on the knowledge and skills acquired in earlier course work, (3) incorporate appropriate engineering standards; and (4) address multiple realistic constraints. To request approval, please complete the online form available at: http://www.brown.edu/academics/engineering/undergraduate-study

* In addition to program requirements above, students must take four courses in the humanities and social sciences.

## Courses @ Brown

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
or CSCI 0170  Computer Science: An Integrated Introduction
or CSCI 0190  Accelerated Introduction to Computer Science
or ENGN 1931Z  Interfaces, Information and Automation

2. Upper-Level Mechanical Engineering Curriculum:
Complete at least 6 courses from the following groups:

Mechanical Systems: At least one course from:
- ENGN 1300  Structural Analysis
- ENGN 1370  Advanced Engineering Mechanics
- ENGN 1750  Advanced Mechanics of Solids

Fluids/Thermal Systems: At least one course from:
- ENGN 1860  Advanced Fluid Mechanics
- ENGN 1700  Jet Engines and Aerospace Propulsion
- ENGN 1710  Heat and Mass Transfer

Capstone: At least one course from the following must be taken in the final two semesters:
- ENGN 1000  Projects in Engineering Design I
  or ENGN 1001  Projects in Engineering Design
- ENGN 1930T  Aircraft Design
- ENGN 1930M  Industrial Design
- ENGN 1931D  Design of Mechanical Assemblies
- ENGN 1380  Design of Civil Engineering Structures
- ENGN 1720  Design of Thermal Engines
- ENGN 1760  Design of Space Systems

Design Electives: Up to two courses from:
- ENGN 1230  Instrumentation Design
- ENGN 1740  Computer Aided Visualization and Design

Bioengineering Electives: Up to two courses from:
- ENGN 1210  Biomechanics
- ENGN 1220  Neuroengineering
- ENGN 1490  Biomaterials

Robotic and Control Systems Electives: up to two courses from:
- ENGN 1931I  Design of Robotic Systems
- ENGN 1931Y  Control Systems Engineering

Engineering Analysis and Computation Electives: up to two courses from:
- ENGN 1840  Numerical Methods in Engineering
- ENGN 1950  Advanced Engineering Optimization

Energy and Environmental Engineering Electives: up to two courses from:
- ENGN 1930U  Renewable Energy Technologies
- ENGN 1931P  Fuels, Energy, and the Environment

Interdisciplinary Electives: up to one course from:
- ENGN 1620  Analysis and Design of Electronic Circuits
  or ENGN 1340  Water Supply and Wastewater Treatment
  or ENGN 1440  Mechanical Properties of Materials
  or ENGN 1470  Structure and Properties of Nonmetallic Materials
  or ENGN 1570  Linear System Analysis
  or ENGN 1931F  Introduction to Power Engineering
  or ENGN 1931X  Instrumentation for Research: A Biomaterials/ Materials Project Laboratory
  or ENGN 1931Z  Interfaces, Information and Automation

3. Upper Level, Advanced Science Course: at least one course from:
- PHYS 0790  Physics of Matter
  or BIOL 0800  Principles of Physiology
  or CHEM 0350  Organic Chemistry
  or CHEM 1140  Physical Chemistry: Quantum Chemistry
  or GEOL 1450  Structural Geology
  or GEOL 1370  Environmental Geochemistry

4. General Education Requirement: At least four approved courses must be taken in humanities and social sciences

Total Credits 21

1. Subject to approval by the concentration advisor, an independent study course (ENGN 1970/ENGN 1971) may be used to fulfill the Engineering Capstone Design requirement. To qualify for such approval, the independent study project must: (1) contain a significant and defensible design component; (2) be based on the knowledge and skills acquired in earlier course work; (3) incorporate appropriate engineering standards; and (4) address multiple realistic constraints.

2. Or another advanced science course, subject to concentration advisor approval.

Engineering and Physics

The Sc.B. program in Engineering and Physics is sponsored jointly by the School of Engineering and the Department of Physics. The program is designed to ensure that students take a significant portion of the usual curriculum in Engineering and in Physics, obtain substantial laboratory experience, and take several upper-level elective courses, focusing on applied science. Students may take either the standard Physics or Engineering programs during their freshman and sophomore years and then switch to this combined program. The Sc.B. degree program in Engineering and Physics is not accredited by ABET.

The following standard program assumes that a student begins mathematics courses at Brown with MATH 0170 or its equivalent. Students who begin in MATH 0200 can substitute an additional science, engineering or higher-level mathematics course for the MATH 0170 or MATH 0190 requirement. To accommodate the diverse preparation of individual students, variations of the following sequences and their prerequisites are possible with permission of the appropriate concentration advisor and the instructors involved. We recommend 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 School of Engineering.

Select one of the following two course sequences:

- ENGN 0030 & ENGN 0040  Introduction to Engineering Mechanics and Dynamics and Vibrations (ENGN 0031 may be substituted for ENGN 0030)
- 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
- MATH 0190  Advanced Placement Calculus (Physics/Engineering)
  or MATH 0170  Advanced Placement Calculus
- MATH 0200  Intermediate Calculus (Physics/Engineering)
  or MATH 0180  Intermediate Calculus
  or MATH 0350  Honors Calculus

Select three additional higher-level math, applied math, or mathematical physics (PHYS 0720) courses.

- CSCI 0040  Introduction to Scientific Computing and Problem Solving
  or CSCI 0150  Introduction to Object-Oriented Programming and Computer Science
  or CSCI 0170  Computer Science: An Integrated Introduction
  or CSCI 0190  Accelerated Introduction to Computer Science
- ENGN 0510  Electricity and Magnetism
  or PHYS 0470  Electricity and Magnetism
- ENGN 1560  Optics
  or PHYS 1510  Advanced Electromagnetic Theory
### Undergraduate Concentrations

**English**

We study how literature works, how we understand it, and how we write about it. We examine closely matters of language, form, genre, and critical method. We invite you to new practices of reading and writing that promote the understanding of literatures and cultures in English through history, criticism, and theory. We are committed to the understanding of literature from a transnational perspective, emphasizing the movement of texts and peoples across borders of nation, race, gender, and sexuality, now and in the past. And we encourage students to commit themselves to the creation of original knowledge in their reading and writing.

In addition to the English concentration, we offer an English concentration track in the practice of Nonfiction Writing. The concentration in English and the English/Nonfiction track follow the same core requirements, and students in the English concentration may elect Nonfiction Writing courses as electives. We invite applications from qualified juniors to the honors programs in both English and Nonfiction. One of the largest humanities concentrations at Brown, English provides a strong foundation for a liberal education and for work in many sectors of employment, especially in the many areas where new media creates demand for transformative writing: the press, publishing, advertising, visual media, public relations, public service, teaching, finance, government, corporate research and administration. English concentrators routinely go on to law, medical, and professional schools as well as to graduate education in literature and the arts.

**About the Concentration**

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 must fill out an online Concentration form via ASK and enter their plan of study indicating the requirements that each course fulfills.

**Concentration Requirements (10 courses):**

1. **ONE course in "How Literature Matters" (ENGL0100):**
   - Addressing topics about which professors are especially passionate, these introductory courses aim to deepen and refine students’ understanding of how literature matters: aesthetically, ethically, historically and politically. Students not only engage with larger questions about literature’s significance, exploring the particular kinds of insights and thinking it is especially suited for conveying, they also gain a deeper awareness of the critical methods we use to understand and analyze it, engaging with matters of form, genre and media. Finally, these courses help students develop their skills as close, careful readers of literary form and language.
   - **ENGL 0100A** How To Read A Poem
   - **ENGL 0100C** Altered States
   - **ENGL 0100D** Matters of Romance
   - **ENGL 0100F** Devils, Demons, and Do Gooders
   - **ENGL 0100G** The Literature of Identity
   - **ENGL 0100J** Cultures and Countercultures: The American Novel after World War II
   - **ENGL 0100M** Writing War
   - **ENGL 0100N** City Novels
   - **ENGL 0100P** Love Stories
   - **ENGL 0100Q** How Poems See
   - **ENGL 0100R** American Histories, American Novels
   - **ENGL 0100S** Being Romantic
   - **ENGL 0100T** The Simple Art of Murder
   - **ENGL 0100V** Inventing Asian American Literature
   - **ENGL 0100W** Literature Reformatted

2. **ONE course in Medieval and Renaissance Literatures (Pre-1700):**
   - These courses, which center on Medieval and Renaissance literary works, cast light on periods that can come across to us as both familiar and strange. They focus our attention on how literatures from these periods depict concepts such as aesthetics, romance, gender, sexuality, race, power and politics in ways that are like and unlike how we tend to think of them today—on how pre-modern or early modern works can both defamiliarize the categories of experience and identity we tend to take for granted and also suggest something of their origins. Several courses under this rubric will also engage with recent literary and filmic adaptations of works from these eras, exploring how many such works continue to function as vibrant and at times ambivalent inspirations for the literary imaginings of later periods.
   - **ENGL 0100A** How To Read A Poem
   - **ENGL 0100C** Altered States
   - **ENGL 0100D** Matters of Romance
   - **ENGL 0100F** Devils, Demons, and Do Gooders
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   - **ENGL 0100V** Inventing Asian American Literature
   - **ENGL 0100W** Literature Reformatted

3. **ONE course in Literatures of Modesty (Post-1700):**
   - These courses explore the many strands of writing in English that have emerged from the eighteenth century through the present, shaping the contemporary world. These literatures reflect on political, economic, and intellectual history, from the idea of the nation and the structures of capital through the rise and dissolution of empire and the emergence of postcolonial states, including the forms of race, gender and sexuality that cut across them. Courses also examine how aesthetic works can shape and critique their moment: they look at genres like the novel and short story, poetry, drama, essays, and new, hybrid forms that have arisen with expanding digital media; they also take up a multitude of literary movements whose influences remain with us today, including Romanticism, realism, naturalism, modernism, and post-modernism.

4. **ONE course in Literatures of the Color Line:**

---

| PHYS 0500 | Advanced Classical Mechanics | 1 |
| or ENGN 1370 | Advanced Engineering Mechanics | 1 |
| PHYS 1410 | Quantum Mechanics A | 1 |
| PHYS 1420 | Quantum Mechanics B | 1 |
| PHYS 1530 | Thermodynamics and Statistical Mechanics | 1 |
| or ENGN 0720 | Thermodynamics | 1 |
| ENGL 1620 | Analysis and Design of Electronic Circuits | 1 |
| CHEM 0330 | Equilibrium, Rate, and Structure | 1 |
| or ENGN 0310 | Mechanics of Solids and Structures | 1 |
| or ENGN 0810 | Fluid Mechanics | 1 |
| or PHYS 1600 | Computational Physics | 1 |
| ENGL 0410 | Materials Science | 1 |
| or ENGL 1690 | Photonics and Applications | 1 |
| or PHYS 0560 | Experiments in Modern Physics | 1 |
| PHYS 1560 | Modern Physics Laboratory | 1 |
| or ENGL 1590 | Introduction to Semiconductors and Semiconductor Electronics | 1 |
| or an approved 2000-level engineering or physics course. | 1 |

A thesis under the supervision of a physics or engineering faculty member: 1

| PHYS 1990 | Senior Conference Course | 1 |
| or ENGN 1970 | Independent Studies in Engineering | 1 |
| or ENGN 1971 | Independent Study in Engineering | 1 |

* Students are also encouraged to take courses dealing with the philosophical, ethical, or political aspects of science and technology.

Total Credits 19
In 1903, W. E. B. Du Bois famously proclaimed in "The Souls of Black Folk" that "The problem of the twentieth century is the problem of the color-line,—the relation of the darker to the lighter races of men in Asia and Africa, in America and the islands of the sea." Courses in this category explore the complex ways in which literary texts have addressed American histories of race, ethnicity, and empire. They may do so from the vantage point of ideas about difference and hierarchy that predate the modern conception of race and by engaging with earlier histories of conflict and contact. These courses explore issues of intersectionality as well, highlighting how race operates in relation to other structures of difference such as gender, sexuality and class.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENGL 0100S</td>
<td>Being Romantic</td>
</tr>
<tr>
<td>ENGL 0150X</td>
<td>The Claims of Fiction</td>
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<tr>
<td>ENGL 0700E</td>
<td>Postcolonial Literature</td>
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<tr>
<td>ENGL 0710V</td>
<td>Death and Dying in Black Literature</td>
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<tr>
<td>ENGL 0710W</td>
<td>Readings in Black and Queer</td>
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<tr>
<td>ENGL 1511C</td>
<td>Lincoln, Whitman, and The Civil War</td>
</tr>
<tr>
<td>ENGL 1511P</td>
<td>Realism, Modernism, Postmodernism: The American Novel and its Traditions</td>
</tr>
<tr>
<td>ENGL 1710J</td>
<td>Modern African Literature</td>
</tr>
<tr>
<td>ENGL 1711D</td>
<td>Reading New York</td>
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<tr>
<td>ENGL 1711H</td>
<td>Lyric Concepts: Expression and Experiment in Modern and Contemporary Poetry</td>
</tr>
<tr>
<td>ENGL 1711J</td>
<td>Art for an Undivided Earth / Transnational Approaches to Indigenous Art and Activism</td>
</tr>
<tr>
<td>ENGL 1711K</td>
<td>The Politics of Perspective: Post-war British Fiction</td>
</tr>
<tr>
<td>ENGL 1760Y</td>
<td>Toni Morrison</td>
</tr>
</tbody>
</table>

5. One course in Literary Theory and Cultural Critique: 1

The late-twentieth century saw a revolution in the field of literary studies in the United States, as critics turned their attention to the contextual and historical nature of our categories of knowledge. This turn to theory was influenced by developments in psychoanalysis, linguistics, philosophy, political theory and sociology and by the emergence of social movements that challenged such structures as patriarchy, homophobia, racism, imperialism, economic inequality, and environmental violence. The avenues of inquiry opened up brought an increased awareness of the implication of literature in the operations of power and ideology; a sense of the potential for literary modes of presentation to challenge and displace such operations; and a new attention to the role of gender, race, empire, class, and sexuality in the formation of the literary work. Courses that satisfy the Literary Theory and Cultural Critique requirement explore some dimension of these issues – either directly, taking as their primary focus a set of theoretical questions or debates, or indirectly, by examining a compelling topical question of social and political significance through works of literature and literary theory.

6. Five electives 2 5

Total Credits 10

1 Each course may fulfill ONE requirement. 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 Only TWO courses dealing primarily with the practice of writing at the 1000-level may be counted as electives. One ENGL0200 may be counted toward the 10-course requirement only as an elective.

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 (10 courses)

The English concentration also includes a Nonfiction Writing Track. The requirements are the same as 1 through 6 above, but three of the five electives must be 1000-level Nonfiction Writing courses (only ONE of which may be intermediate). Only THREE Nonfiction courses may count toward the concentration.

Honors in English

The English Honors program is intended for students who have been highly successful in their English concentration coursework and who want the opportunity to pursue a research project in more depth than is possible in an undergraduate seminar. The program is intended for those students with a strong desire to conduct independent research under the supervision of a thesis advisor and culminates in the writing of a thesis during the senior year.

Admission

Students apply to the Honors Program early in the second semester of their junior year. December or mid-year graduates may apply in their 6th semester, but are encouraged to apply during their 5th semester and write their theses alongside May graduates. Interested concentrators should speak to the Honors Advisor early in their junior year to discuss their plans. Specific deadlines for admission are announced annually and are available on the department website. Students who are studying off campus are expected to meet the application submission deadline.

Admission to the English Honors Program depends on evidence of ability and promise in the study of literature. To be eligible for admission, students must have received more As than Bs (and no Cs or below) in concentration courses completed. Students must complete an application; supply a brief writing sample, and request two letters of recommendation from English faculty with whom they have taken courses. If necessary, letters may come from faculty in related departments. Letters from teaching assistants may only serve as supporting recommendations. Candidates must also submit a one-page project proposal signed by the faculty member who has agreed to serve as the thesis advisor.

See procedures and application (http://brown.edu/academics/english/english-honors-procedures) for more details.

December or mid-year graduates who wish to apply to honors have two options, but the first is highly encouraged:

Option 1:
In their 5th semester (Spring), students apply to the honors program along with the other juniors. Accepted students will be incorporated into the regular honors cohort and must meet the same deadlines; i.e. they must complete their theses at the same time as the other honors students (though for mid-years this will be at the end of their 7th semester). They register for ENGL 1991 English Honors Seminar in the Fall, and ENGL 1992 Senior Honors Thesis in the Spring.

Option 2:
In the 7th semester (the Spring of their final year), students take an independent study with their thesis advisor, under whose direction they will begin to research and write their theses. This course must be taken S/NC. In the 8th semester (the Fall of their final year), as they complete their theses, students take ENGL 1992 for a grade. Mid-year graduates should consult with the Honors Director for information about deadlines.

Requirements

The course requirements for the English Honors Program are the same as those for the regular concentration, with the following additions: As part of regular coursework, and counting toward the concentration requirements, honors candidates must complete at least three upper-level seminars or comparable small courses in which students have the opportunity to do independent research, take significant responsibility for discussion, and do extensive scholarly and critical writing. Students are encouraged to include at least one graduate seminar in their program. (Permission to take a graduate course must be obtained from the instructor.) Honors candidates should discuss their proposed course of study with the Honors Advisor.
During the Fall and Spring of the senior year, honors candidates must complete two additional courses beyond the ten courses required by the regular concentration: ENGL 1991 and ENGL 1992. ENGL 1991 is the Senior Honors Seminar, in which students begin to research and write their theses, as well as meet to discuss their work. This is a mandatory S/NC course. ENGL 1992, the Senior Honors Thesis is an independent research course that must be taken for a grade.

Honors candidates must continue to receive more As than Bs in courses taken as part of the concentration. Courses completed with a grade of C will not count toward an Honors concentration. A student who receives such a grade and wishes to continue in the program must complete a comparable course with a grade higher than C.

The Honors Thesis

The Honors thesis is an extended essay, usually between 50 and 80 pages, written under the supervision of a department faculty advisor and second reader. (Where appropriate, the advisor or the reader, but not both, may be in another department.) The thesis may be an interdisciplinary or creative project, but it is usually an essay on a scholarly or critical problem dealing with works of literature in English. The specific topic and approach of the thesis should be developed between the student and at least one advisor, with assistance from the student’s second reader. This process should begin in the latter part of the student’s junior year. A good way to get an idea of what sorts of projects are possible is to visit the Hay Library, which stores theses from previous years, or to meet with the Honors Advisor.

A prospectus describing the project and endorsed by the faculty advisor must be submitted to the Honors Advisor at the beginning of the senior year. At the end of the senior year fall term, a student must submit approximately 25 pages of draft material toward the dissertation. Full thesis drafts are due by mid-March; final bound copies of the thesis are due in mid-April. Late theses will not be accepted for honors after the April deadline; students who hand in theses after the deadline but before the end of the term will receive a grade for the thesis course, but they will not be eligible for departmental honors. The completed thesis will be evaluated by the student’s advisor and a second reader, each of whom provides written commentary and suggests a grade for ENGL 1992.

Evaluation

The English Department reviews the academic record as well as the thesis evaluations for each senior completing the Honors Program. Following a successful review, the student will be eligible to graduate with Honors in English.

Honors in Nonfiction Writing

The Nonfiction Writing Honors Program is intended for students who have been highly successful in their English concentration work. Specifically, it allows those who have an expressed and proven interest in nonfiction writing to pursue more completely a single project under the supervision of one faculty advisor. The intention is to help students to complete work worthy of publication. The program culminates in the writing of a thesis during the senior year.

Admission

Students apply to the Nonfiction Writing Honors Program in the second semester of their junior year. December or mid-year graduates may apply in their 6th semester, but are encouraged to apply during their 5th semester and write their theses alongside May graduates. Interested concentrators should have already made contact with at least one member of the Nonfiction Writing faculty and should meet with the Honors Advisor early in their junior year to discuss their plans. Specific deadlines for admission are announced annually and are available on the department website. Students who are studying off campus are expected to meet the application submission deadline.

Admission to the Nonfiction Writing Program depends upon a student’s demonstrated superior ability in nonfiction writing. Students must have taken either one intermediate and one advanced writing course, or two advanced writing courses by the end of their sixth semester and completed each of them with an S. To be eligible for admission, students must have earned more As than Bs (and no Cs or below) in other courses in the concentration plan. Students must submit an application, three letters of recommendation, a writing sample from an advanced writing course, and a project proposal.

See procedures and application (http://brown.edu/academics/english/nonfiction-honors-procedures) for more details.

December or mid-year graduates who wish to apply for nonfiction honors have two options, but the first is highly encouraged:

Option 1:

In their 5th semester (Spring), students can apply to the nonfiction honors program along with the other juniors. Accepted students will be incorporated into the regular nonfiction honors cohort and must meet the same deadlines: i.e. they must complete their theses at the same time as the other honors students (though for mid-years this will be at the end of their 7th semester). They register for ENGL 1993 Nonfiction Honors Seminar in the Fall and ENGL 1994 Senior Honors Thesis in Nonfiction in the Spring.

Option 2:

In their 7th semester (the Spring of their final year) students take ENGL 1200 and in their 8th semester (the Fall of their final year) they take ENGL 1994. (Students choosing this option must consult with the Honors Advisor for information on deadlines.)

Requirements

Students in the Nonfiction Writing Honors Program take two additional courses beyond the ten courses required by the Nonfiction Writing Track -- ENGL 1993 Honors Seminar in Nonfiction Writing (with the Honors Advisor) and ENGL 1994 Senior Honors Thesis in Nonfiction Writing; the Honors track will bring to twelve the total number of required courses. The ENGL 1993 grade option must be S/NC; ENGL 1994 must be taken for a grade. Honors candidates should discuss their proposed course of study with the faculty member they choose to direct their thesis.

Honors candidates must continue to receive more As than Bs in courses taken as part of the concentration. Courses completed with a grade of C will not count toward an Honors concentration. A student who receives a “C” after admission to Nonfiction Honors and wishes to continue in the program must complete an additional course in a comparable subject area, with a grade higher than C.

The Honors Thesis

The Nonfiction Writing Honors thesis is an extended project, usually of between 50 and 80 pages, written under the supervision of one of the Nonfiction Writing faculty and a second reader (who can be from literature or another department). The specific topic and approach of the thesis are worked out between the student and the first reader, with assistance from the student’s second reader. A good way to get an idea of what sorts of projects are possible is to visit the Hay Library, which stores theses from previous years, or to meet with the Honors Advisor. The specific topic and approach of the thesis are settled between the student and the thesis advisor. The specific topic and approach of the thesis are settled between the student and the thesis advisor. The specific topic and approach of the thesis are settled between the student and the thesis advisor.

Full thesis drafts are due by mid-March; final bound copies of the thesis are due in mid-April. Late theses will not be accepted for honors after the April deadline; students who hand in theses after the deadline but before the end of the term will receive a grade for the thesis course, but they will not be eligible for departmental honors. The completed thesis will be evaluated by the student’s advisor and a second reader, each of whom provides written commentary and suggests a grade for ENGL 1992.

Environmental Studies

Many of the most pressing challenges of the 21st Century are environmental ones. We must find ways to feed a growing human population while maintaining the natural life support system provided by the Earth’s ecosystems; to make built environments more efficient as urban areas continue to grow dramatically in size; and to meet the
challenges posed by rising sea-level and increasing global temperatures. These challenges are complex, multifaceted and can best be solved with expertise from multiple, relevant disciplines. To prepare students to meet these challenges, the Institute at Brown for Environment and Society (IBES) offers two undergraduate degrees: an A.B. in Environmental Studies and a Sc.B. in Environmental Science. The two degrees vary primarily in the number of course requirements; the Sc.B. is a more in-depth treatment of a single field. Both degrees provide interdisciplinary exposure to the natural and social sciences, as well as public policy. Both degrees also develop depth in a primary field by requiring students to select one of four tracks of study. Concentrators might also consider pursuing the Engaged Scholars Program, which allows them to connect theory and practice and gain hands-on experience working with community partners.

Through a rigorous set of core courses, track requirements, and a course or project-based capstone experience, our students are primed to make meaningful contributions to environmental scholarship and outreach at local, national and global scales.

If you have administrative questions regarding these concentrations or wish to be added to the email directory listing upcoming events, then please contact Jeanne Loewenstein (jeanne_loewenstein@brown.edu), the administrative manager.

**Standard program in Environmental Studies and Environmental Science:**

The Institute at Brown for Environment and Society administers two concentrations, one offering an A.B. degree in Environmental Studies (requires 14-15 courses) and the other a Sc.B. degree in Environmental Science (requires 19-20 courses). Below are a set of course offerings arranged into four tracks:

1. Air, Climate & Energy
2. Conservation Science & Policy
3. Environment & Inequality
4. Land, Water & Food Security
5. Sustainability in Development

**Requirements for the A.B. Degree**

**Core Requirements**

- ECON 0110 Principles of Economics
- ENVS 0490 Environmental Science in a Changing World
- ENVS 0495 Introduction to Environmental Social Science
- BIOL 0210 or GEOL 0240 Diversity of Life or Earth: Evolution of a Habitable Planet

**Methods - one course**

- ENVS 1920 Methods for Interdisciplinary Environmental Research

**Electives - three courses**

You may choose among any ENVS course, any course shown on one or more of the tracks, and any prerequisites listed for a required course.

**Capstone - one or two courses**

This requirement can be met with a two-semester thesis (ENVS 1970 & ENVS 1971), one-semester research project (ENVS 1970 or ENVS 1971), or an approved capstone course.

**Track Specific Requirements**

**Track 1 - Air, Climate, and Energy**

Foundational courses (choose two):

- CHEM 0330 Equilibrium, Rate, and Structure
- ENGN 0030 Introduction to Engineering
- GEOL 0220 Physical Processes in Geology
- PHYS 0050 Foundations of Mechanics

Climate (choose one):

- CHEM 0330 Equilibrium, Rate, and Structure
- ENGN 0030 Introduction to Engineering
- GEOL 0220 Physical Processes in Geology
- PHYS 0050 Foundations of Mechanics

**Track 2 - Conservation Science and Policy**

Ecology:

- BIOL 0420 Principles of Ecology

Conservation:

- BIOL 1470 Conservation Biology

Ecology & Conservation Topics: Select One

- BIOL 0455 Coastal Ecology and Conservation
- BIOL 1450 Community Ecology
- BIOL 1480 Terrestrial Biogeochemistry and the Functioning of Ecosystems

Policy: Select One

- ENVS 1415 Power, Justice, and Climate Change
- ENVS 1555 Urban Agriculture: The Importance of Localized Food Systems
- ENVS 1575 Engaged Climate Policy at the UN Climate Change Talks
- ENVS 1615 Making Connections: The Environmental Policy Process
- ENVS 1755 Globalization and the Environment
- ENVS 1925 Energy Policy and Politics

Statistics: Select One

- APMA 0650 Essential Statistics
- APMA 1650 Statistical Inference I
- BIOL 0495 Statistical Analysis of Biological Data
- ECON 1620 Introduction to Econometrics

**Track 3 - Environment and Inequality (New)**

Track Intro Course:

- ENVS 0705 - Equity and the Environment: Movements, Scholarship, Solutions

Race, Class, and Gender Inequality: Select One

- AFRI 0090 An Introduction to Africana Studies
- AFRI 0210 Afro Latin Americans and Blackness in the Americas
- ECON 1370 Race and Inequality in the United States
- ETHN 0170A History and Resistance in Representations of Native Peoples
- ETHN 1000 Introduction to American/Ethnic Studies
- GNSS 1600 Embodying Feminisms/Feminist Embodiments
- HIST 0203 Modern Africa: From Empire to Nation-State
- HIST 1974J Decolonizing Minds: A People's History of the World
- SOC 0230 Sex, Gender, and Society

**GEOL 0850 Weather and Climate**

**GEOL 1430 Principles of Planetary Climate**

**Policy (choose one):**

- ENVS 0710 Powering the Past: Environmental Histories of Energy Use and Social Change
- ENVS 1415 Power, Justice, and Climate Change
- ENVS 1925 Energy Policy and Politics
- POLS 1822I Geopolitics of Oil and Energy

**Energy Technology and Infrastructure (choose one):**

- ENVS 1400 Sustainable Design in the Built Environment
- ENVS 1580 Environmental Stewardship and Resilience in Urban Systems
- ENGN 0720 Thermodynamics
- ENGN 1930U Renewable Energy Technologies
- ENGN 1931P Fuels, Energy, and the Environment
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<td>SOC 1872C</td>
<td>Race and Ethnic Relations, Identity, and Inequality</td>
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<td>ENV 0710</td>
<td>Powering the Past: Environmental Histories of Energy Use and Social Change</td>
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<td>ENV 1910</td>
<td>The Anthropocene: The Past and Present of Environmental Change</td>
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<td>HIST 0270A</td>
<td>From Fire Wielders to Empire Builders: Human Impact on the Global Environment before 1492</td>
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<tr>
<td>HIST 0270B</td>
<td>From the Columbian Exchange to Climate Change: Modern Global Environmental History</td>
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**Tools:** Select One

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<td>ENV 1105</td>
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<td>GEOL 1320</td>
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<td>Principles and Methods of Geographic Information Systems</td>
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<td>Spatial Thinking in Social Science</td>
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**Policy and Politics:** Select One

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<td>URBN 1220</td>
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<td>URBN 1250</td>
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**Track 4 - Land, Water & Food Security**

**Climate:** Select One

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**Biology:** Select One

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<td>BIOL 0160</td>
<td>Plants, Food, and People</td>
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<td>Principles of Ecology</td>
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<td>BIOL 0430</td>
<td>The Evolution of Plant Diversity</td>
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<td>BIOL 0455</td>
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**Environmental History:** Select One

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**Track 5 - Sustainability in Development**

**Environment and Development:** Select Two

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<td>Power, Justice, and Climate Change</td>
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<td>Urban Agriculture: The Importance of Localized Food Systems</td>
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<td>ENVS 1580</td>
<td>Environmental Stewardship and Resilience in Urban Systems</td>
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**Policy:** Select Two

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<td>ENVS 1615</td>
<td>Making Connections: The Environmental Policy Process</td>
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<td>ENVS 1925</td>
<td>Energy Policy and Politics</td>
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**Analysis Tools:** Select One

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</table>

**Total Credits:** 14-15

1. The ECON 0110 core requirement can be waived for students with an AP exam score of 4 or 5 in both Microeconomics and Macroeconomics.
Requirements for the Sc.B. Degree

Requirements for the Sc.B. Degree

Requires ALL 14-15 course requirements as listed in the A.B. Program

Additional Track specific requirements for the Sc.B. 5

Track 1 - Air, Climate, and Energy
Math:
MATH 0090  Introductory Calculus, Part I 1, 2
or MATH 0100  Introductory Calculus, Part II
Policy (choose one):
ENVS 1350  Environmental Economics and Policy
ENVS 1415  Power, Justice, and Climate Change
ENVS 1575  Engaged Climate Policy at the UN Climate Change Talks
ENVS 1615  Making Connections: The Environmental Policy Process
ENVS 1755  Globalization and the Environment
ENVS 1925  Energy Policy and Politics
POLS 1822I  Geopolitics of Oil and Energy
Tools (choose one):
ENVS 1105  Introduction to Environmental GIS
APMA 0650  Essential Statistics
ECON 1620  Introduction to Econometrics
GEOL 1320  Introduction to Geographic Information Systems for Environmental Applications
GEOL 1330  Global Environmental Remote Sensing
Climate and Thermal Change (choose two):
GEOL 1370  Environmental Geochemistry
ENGN 0720  Thermodynamics
ENGN 1720  Design of Thermal Engines
ENGN 1930M  Industrial Design
GEOL 1510  Introduction to Atmospheric Dynamics
GEOL 1520  Ocean Circulation and Climate

Track 2 - Conservation Science and Policy
Math: Select One
MATH 0090  Introductory Calculus, Part I 1
Evolution: Select One
BIOL 0480  Evolutionary Biology
Organismal Diversity: Select One
BIOL 0410  Invertebrate Zoology
BIOL 0430  The Evolution of Plant Diversity (BIOL 0460 - Insect Biology)
BIOL 0940C  Sophomore Seminar: Insect Biology
BIOL 0940D  Rhode Island Flora: Understanding and Documenting Local Plant Diversity
BIOL 1880  Comparative Biology of the Vertebrates
Env. Econ: Select One
ECON 1340  Economics of Global Warming
ENVS 1350  Environmental Economics and Policy
Tools: Select One
ENVS 1105  Introduction to Environmental GIS
GEOL 1320  Introduction to Geographic Information Systems for Environmental Applications
GEOL 1330  Global Environmental Remote Sensing
SOC 1340  Principles and Methods of Geographic Information Systems

Track 3 – Environment and Inequality (New)

Tools: Select One
ANTH 1940  Ethnographic Research Methods
ECON 1620  Introduction to Econometrics
EDUC 1100  Introduction to Qualitative Research Methods
ENVS 1105  Introduction to Environmental GIS
GEOL 1320  Introduction to Geographic Information Systems for Environmental Applications
GEOL 1330  Global Environmental Remote Sensing
SOC 1100  Introductory Statistics for Social Research
SOC 1117  Focus Groups for Market and Social Research
SOC 1340  Principles and Methods of Geographic Information Systems
SOC 2610  Spatial Thinking in Social Science

Race, Class and Gender Inequality: Select One
ECON 1370  Race and Inequality in the United States
ETHN 0170A  History and Resistance in Representations of Native Peoples
GNSS 1600  Embodying Feminisms/Feminist Embodiments
HIST 1974J  Decolonizing Minds: A People's History of the World
SOCI 1270  Race, Class, and Ethnicity in the Modern World
SOCI 1872C  Race and Ethnic Relations, Identity, and Inequality

SELECT A FOCUS AREA (pick three courses from only one focus area)

FOCUS ONE - Environmental Inequality in Globalization and Development: Select Three
ANTH 0110  Anthropology and Global Social Problems: Environment, Development, and Governance
DEVL 1803R  Bringing Small States in: How and Why They Matter
ECON 1355  Environmental Issues in Development Economics
ECON 1510  Economic Development
ECON 1530  Health, Hunger and the Household in Developing Countries
ENVS 1415  Power, Justice, and Climate Change
HIST 0150D  Refugees: A Twentieth-Century History
PHP 1070  The Burden of Disease in Developing Countries
POLI 1440  Security, Governance and Development in Africa
POLI 1730  Politics of Globalization
SOC 0150  Economic Development and Social Change

FOCUS TWO - Environmental Health and Inequality: Select Three
AFRI 1060W  Policy, Culture and Discourse that Shape Health and Access to Healthcare
AMST 1700I  Community Engagement with Health and the Environment
ANTH 1310  International Health: Anthropological Perspectives
BIOL 1820  Environmental Health and Disease
HIST 1960Q  Medicine and Public Health in Africa
PHP 0320  Introduction to Public Health
PHP 1070  The Burden of Disease in Developing Countries

2 The core requirement of ENVS 0490 can be waived for students with an AP exam score of 5 in Environmental Science.
3 Students pursuing the Sc.B. must take ECON 1620.
| PHP 1530 | Case Studies in Public Health: The Role of Governments, Communities and Professions |
| PHP 1700 | Current Topics in Environmental Health |
| PHP 1710 | Climate Change and Human Health |
| PHP 1920 | Social Determinants of Health |
| PHP 2025 | Including the Excluded: Global Health Ethics |
| FOCUS THREE - Environmental Inequalities in Food, Water, and Energy: Select Three |
| AMST 1906P | Food in American Society and Culture |
| DEVLS 1803R | Bringing Small States into: How and Why They Matter |
| ENVS 0710 | Powering the Past: Environmental Histories of Energy Use and Social Change |
| ENVS 1415 | Power, Justice, and Climate Change |
| ENVS 1555 | Urban Agriculture: The Importance of Localized Food Systems |
| ENVS 1580 | Environmental Stewardship and Resilience in Urban Systems |
| ENVS 1925 | Energy Policy and Politics |
| ETHN 1750B | Treaty Rights and Food Fights: Eating Local in Indian Country |
| Track 4 - Land, Water & Food Security |
| Math: Select One |
| MATH 0090 | Introductory Calculus, Part I |
| Chemistry: Select One |
| CHEM 0330 | Equilibrium, Rate, and Structure |
| Earth/Life Systems: Select Three |
| BIOL 1470 | Conservation Biology |
| BIOL 1475 | Biogeography |
| BIOL 1490 | Terrestrial Biogeochemistry and the Functioning of Ecosystems |
| GEOL 0240 | Earth: Evolution of a Habitable Planet |
| GEOL 1130 | Ocean Biogeochemical Cycles |
| GEOL 1310 | Global Water Cycle |
| GEOL 1370 | Environmental Geochemistry |
| GEOL 1510 | Introduction to Atmospheric Dynamics |
| GEOL 1660 | Instrumental Analysis with Environmental Applications |
| Track 5 - Sustainability in Development |
| Sociology and Politics: Select One |
| SOC 1870K | Demographics and Development |
| POLS 0400 | Introduction to International Politics |
| ENVS 1755 | Globalization and the Environment |
| Critical Perspectives on Development: Select One |
| AMST 1700I | Community Engagement with Health and the Environment |
| ANTH 0110 | Anthropology and Global Social Problems: Environment, Development, and Governance |
| SOC 1871D | Sophomore Seminar in Sociology of Development |
| Economic Perspectives: Select Two |
| ECON 1110 | Intermediate Microeconomics |
| ECON 1340 | Economics of Global Warming |
| ECON 1355 | Environmental Issues in Development Economics |
| ECON 1510 | Economic Development |
| ECON 1530 | Health, Hunger and the Household in Developing Countries |
| ECON 1560 | Economic Growth |

| Climate: Select One |
| GEOL 0850 | Weather and Climate |

| Total Credits | 19-20 |

1. The track requirement of MATH 0090 can be waived for students with an AP exam score of 4 or 5 on Calc AB.
2. The ACE MATH 0090 and MATH 0100 track requirements can be waived for students with an AP exam score of 4 or 5 on Calc BC.

**Honors**

Students interested in graduating with honors in their concentration must complete a thesis determined to be of the highest quality and must have excelled in their coursework required for the concentration, which is defined here as receiving a grade of "A" in the majority of courses taken to fulfill the concentration. You can learn more by visiting the honors page (https://www.brown.edu/academics/institute-environment-society/education/undergraduate/honors) on the IBES website.

**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 Ethnic Studies concentration (https://www.brown.edu/academics/american-studies/ethnic-studies) at Brown emphasizes the histories of diverse racial groups within and across the borders of the United States, including examining issues of diaspora, migration, social movements, and the political economies of social inequality and racial formation. Concentrators strive for intellectual fluency in a range of critical approaches to race and ethnicity across disciplines, and demonstrate this fluency through the composition or creation of a significant piece of original research or creative work.

Brown University established an Ethnic Studies concentration in 1996, originally within the Center for the Study of Race and Ethnicity in America (CSREA). In the Fall of 2013, as part of changes to the CSREA and to better support students, Ethnic Studies joined a long-established Brown department, American Studies (https://www.brown.edu/academics/american-studies/home). Many American Studies faculty members (https://www.brown.edu/academics/american-studies/people) work in the areas of race and ethnicity and have held joint appointments in Ethnic and American Studies while American Studies PhD students (https://www.brown.edu/academics/american-studies/graduate-students) have done some of the most exciting Ethnic Studies research on campus. Faculty and students in Ethnic Studies and American Studies are eager to see how the two programs move forward together.

As an academic field, Ethnic Studies is rooted in the protests of the 1960s and 1970s, out which emerged the very first Latino/a Studies, Asian American Studies, African American Studies, and Native American studies programs. Organized around straightforward political goals — the enrichment through diversification of the curriculum and the systematic, multi-disciplinary, and the often comparative study of racial and ethnic inequality — Ethnic Studies has become an important feature of major research universities.

Faculty, both core and affiliated, create and participate in groundbreaking Ethnic Studies scholarship. Areas of faculty research include borderlands history, Latino/a literary studies, and indigenous movements. Students can focus in Native American, Asian American, or Latino Studies and choose a thematic interest including such current examples as: "social issues affecting racialized groups" (students have looked at health disparities or educational inequality); "the study of cultural production or
cultural representations;" "the history of a particular racial or ethnic group;" and "the study of comparative processes of racialization."

Requirements (for students starting with the class of 2020)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHN 1000</td>
<td>Introduction to American/Ethnic Studies</td>
<td>1</td>
</tr>
<tr>
<td>ETHN 1200B</td>
<td>Contemporary Indigenous Education in North America</td>
<td></td>
</tr>
<tr>
<td>ETHN 1200D</td>
<td>Latinx Literature</td>
<td></td>
</tr>
<tr>
<td>ETHN 1750A</td>
<td>Immigrant Social Movements: Bridging Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>ETHN 1750B</td>
<td>Treaty Rights and Food Fights: Eating Local in Indian Country</td>
<td></td>
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<tr>
<td>ETHN 1750D</td>
<td>Transpacific Asian American Studies</td>
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<tr>
<td>ETHN 1750E</td>
<td>Transpacific Popular Culture</td>
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</tbody>
</table>

Four classes (at least two in Ethnic Studies) that address the students' research focus and that prepare them for the capstone experience. Courses must be approved by the concentration advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHN 1650</td>
<td>Approaches in Ethnic Studies</td>
</tr>
<tr>
<td>AMST 1700D</td>
<td>Race and Remembering</td>
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<tr>
<td>AMST 1700F</td>
<td>American Publics</td>
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<tr>
<td>AMST 1700I</td>
<td>Community Engagement with Health and the Environment</td>
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<tr>
<td>AMST 1700K</td>
<td>Race in the Americas: A Hemispheric Perspective</td>
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<tr>
<td>AMST 1900A</td>
<td>The Problem of Class in America</td>
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<tr>
<td>AMST 1900B</td>
<td>America and the Asian Pacific: A Cultural History</td>
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<tr>
<td>AMST 1900C</td>
<td>Narratives of Slavery</td>
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<tr>
<td>AMST 1900D</td>
<td>America as a Trans-Pacific Culture</td>
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<tr>
<td>AMST 1900F</td>
<td>Transnational Popular Culture</td>
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<tr>
<td>AMST 1900G</td>
<td>Movements, Morals, and Markets</td>
</tr>
<tr>
<td>AMST 1900H</td>
<td>New Media as a Tool for Social and Political Change</td>
</tr>
<tr>
<td>AMST 1900I</td>
<td>Latina/o Cultural Theory</td>
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<tr>
<td>AMST 1900J</td>
<td>Race, Immigration and Citizenship</td>
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<tr>
<td>AMST 1900K</td>
<td>China in the American Imagination</td>
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<tr>
<td>AMST 1900L</td>
<td>Cold War Culture The American Culture in the Cold War</td>
</tr>
<tr>
<td>AMST 1900N</td>
<td>Ethnicity, Identity and Culture in 20th Century New York City</td>
</tr>
<tr>
<td>AMST 1900O</td>
<td>Filipino American Cultures</td>
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<tr>
<td>AMST 1900P</td>
<td>Essaying Culture</td>
</tr>
<tr>
<td>AMST 1900Q</td>
<td>From Perry to Pokemon: Japan in the United States, the United States in Japan</td>
</tr>
<tr>
<td>AMST 1900R</td>
<td>Gender, Race, and Class in the United States</td>
</tr>
<tr>
<td>AMST 1900S</td>
<td>Green Cities: Parks and Designed Landscapes in Urban America</td>
</tr>
<tr>
<td>AMST 1900T</td>
<td>Disability: History, Theory, and Bodily Difference</td>
</tr>
<tr>
<td>AMST 1900U</td>
<td>Immigrant Radicals: Asian Political Movements in the Americas 1850-1970</td>
</tr>
<tr>
<td>AMST 1900V</td>
<td>Immigrants, Exiles, Refugees, and Citizens in the Americas</td>
</tr>
<tr>
<td>AMST 1900W</td>
<td>Latina Literature: The Shifting Boundaries of Identity</td>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AMST 1900X</td>
<td>Latina/o Religions: Encounters of Contestations and Transformations</td>
</tr>
<tr>
<td>AMST 1900Y</td>
<td>Latino New York</td>
</tr>
<tr>
<td>AMST 1900Z</td>
<td>Latinos and Film</td>
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</tbody>
</table>

A course from the ETHN 1900 series: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHN 1900A</td>
<td>Alien Nation: US Immigration in Comparative Perspectives</td>
</tr>
<tr>
<td>ETHN 1900B</td>
<td>Community, Language and Literacy: A Pracitcum</td>
</tr>
<tr>
<td>ETHN 1900C</td>
<td>Contemporary Latino/a Education in the United States</td>
</tr>
<tr>
<td>ETHN 1900D</td>
<td>Latino Communities Seminar</td>
</tr>
<tr>
<td>ETHN 1900E</td>
<td>Senior Seminar in Ethnic Studies</td>
</tr>
<tr>
<td>ETHN 1900F</td>
<td>Theory, Creativity, Activism</td>
</tr>
<tr>
<td>ETHN 1900G</td>
<td>Race and Immigration in the Americas</td>
</tr>
<tr>
<td>ETHN 1900H</td>
<td>What is Ethnic Studies?</td>
</tr>
</tbody>
</table>

Total Credits: 10

Honors:

Composing a senior honors project in Ethnic Studies requires the following:

- A 3.5 GPA in concentration courses
- A 3.0 overall GPA
- Completion of the standard concentration
- Completion of two additional independent studies, taken in the seventh and eighth semesters
- A completed project, delivered on the due date
- A recommendation for honors from both readers

In their sixth semester, students who want to graduate with honors should enroll in AMST/ETHN 1800, the Honors Seminar. They must define their honors project by April 1. This means composing a two-page, single-spaced proposal along with a bibliography of relevant sources, which must be submitted for approval to the faculty. The proposal should identify the problem, or question, and suggest approaches and possible hypotheses or outcomes. It should also name the readers. Students need to work with two professors — a director and a reader. At least one should be Ethnic Studies faculty. If a student wants to work with two professors, neither of whom is Ethnic Studies faculty, then they should have a second reader who will read the final draft or consult on the final project and approve it for honors in the field.

In their seventh and eighth semesters, students seeking honors will enroll in an independent study class with their director, which will include a monthly meeting, in which they would write and revise sections of their thesis and follow through on the plan devised in the spring of their junior year. Students should meet with both their director and their reader during this time.

In their eighth semester, the deadline for a finished full draft of their project is April 21. Students should turn in a completed (proofread, formatted, fully written) draft to their readers by that day. Of course, students will turn chapters to the director and reader before that, according to their recommendations, but April 21 is the absolute deadline to turn in a draft that needs only very minor corrections.

All official readers must recommend the project for honors. When written as formal research papers, honors theses are generally between 50-100 pages. When there is a creative or public component, students should work closely with their faculty team to determine the appropriate length of the written accompaniment. Students will make a public presentation of their work to the Ethnic Studies faculty during the first week of May.
Requirements (for students through the class of 2019):

ETHN 0500  Introduction to American/Ethnic Studies  1
Any two introductory courses in Latino/a, Africana, Asian-American, or Native American Studies. The courses in the list below are exaples of these courses. Other courses may be approved by the Advisor.
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 or ANTH 1420  Race, Culture, and Ethnic Politics
Courses taught by core Ethnic Studies faculty may be recognized in consultation with concentration advisor.

Any three courses in Ethnic Studies that address the student's focus area (as approved by the concentration advisor), for example:

ETHN 0090A  The Border/La Frontera
ETHN 0090B  Critical Mixed Race Studies in the Twenty-First Century
ETHN 0300  Ethnic Writing
ETHN 0512  Introduction to Latino/o Cultural Studies
ETHN 0790A  Latino/o Literature
ETHN 0790B  Native Americans and the Media
ETHN 0790C  Theory Into Practice: Service Learning at a Dual Language Charter School
ETHN 0790D  Race and Remembering
ETHN 0880  Hip Hop Music and Cultures
ETHN 0890  The Research Process: Qualitative and Ethnographic Methods
ETHN 1020  Race and Language in the United States
ETHN 1050  Race in the Americas
ETHN 1750A  Immigrant Social Movements: Bridging Theory and Practice
ETHN 1870A  Ethnic Los Angeles
ETHN 1870B  Latino/a Communities Seminar
ETHN 1870C  Native North Americans in the Media: Representations and Self Representations in Film
ETHN 1870D  Chicana/o Fiction
ETHN 1870E  Queer Latino/a Literature and Theory
ETHN 1870F  Eating Cultures
ETHN 1870G  Reading Race: Advanced Seminar in Critical Race Theory
ETHN 1890A  Seminar on Latino Politics in the United States
ETHN 1890B  Native American and European Contact in Early North America, ca. 1600-1750
ETHN 1890C  Business, Culture, and Globalization: An Ethnographic Perspective
ETHN 1890D  Indigenous Music of the Americas
ETHN 1890E  Johnny, Are You Queer: Narratives of Race and Sexuality
ETHN 1890F  Bad Boys and Bad Girls in Asian American Literature and Culture
ETHN 1890G  Native Americans in the Media: Representation and Self-Representation on Film
ETHN 1890H  Introduction to American Indian Studies
ETHN 1890J  Native American Environmental Health Movements
ETHN 1890K  Engendering Empire
ETHN 1890L  (De)Colonizing Women: Writing the Third Space
ETHN 1890M  Treaty Rights and Food Fights: Eating Local in Indian Country
ETHN 1890N  Thawing the "Frozen Indian"; American Indian Museum Representation
ETHN 1890P  Introduction to Native American Literature
ETHN 1890Q  The Hispanic Caribbean and its Diasporas
ETHN 1890R  Latina Feminisms
ETHN 1890S  Youth, Art, Engagement and Social Justice
ETHN 1892  Race, Class and Gender in Latino Communities

Any three courses drawn from a list of related courses (as approved by the concentration advisor).

A course from the ETHN 1900 series. 1

ETHN 1900A  Alien Nation: US Immigration in Comparative Perspectives
ETHN 1900B  Community, Language and Literacy: A Practicum
ETHN 1900C  Contemporary Latino/a Education in the United States
ETHN 1900D  Latino Communities Seminar
ETHN 1900E  Senior Seminar in Ethnic Studies
ETHN 1900F  Theory, Creativity, Activism
ETHN 1900G  Race and Immigration in the Americas
ETHN 1900H  What is Ethnic Studies?
ETHN 1900N  Transpacific Asian American Studies

Students in the concentration should also take a WRIT course from within the concentration, from a list of cross-listed courses, or from a course approved by their advisor. Students should also be sure to take a methods course.

Total Credits 10

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 (401-863-7034).

French and Francophone Studies

The concentration in French and Francophone Studies is committed to the pursuit of an interdisciplinary, linguistically rigorous, and textually informed understanding of French and Francophone literatures and cultures. Concentrators engage actively through their coursework with a wide range of texts and critical perspectives, pertaining to multiple literary genres, media, and contexts. They have opportunities to study different
periods of French history as well as Francophone cultures beyond France. By the time they graduate, concentrators will have learned to read with knowledge and nuance and produced a varied body of critical work in French.

The concentration in French and Francophone Studies is committed to the study of the language, literature, and cultural and critical traditions of the French-speaking world. Concentrators engage actively through their coursework with a wide range of texts and critical perspectives, and multiple literary genres and media (the novel, theater; poetry; cinema; critical theory; special topics in contemporary politics and culture). They have opportunities to study different periods of French literature and intellectual history (from the Renaissance to the present) as well as Francophone cultures beyond France (West Africa, the Maghreb and the Caribbean). Courses cover a wide diversity of topics, while placing a shared emphasis on language-specific study, critical writing skills, and the vital place of literature and art for intellectual inquiry.

The concentration program is designed to encourage and support language-specific study. Literary texts and cultural documents are read principally in the original. Likewise, in most courses, French is the language of class discussions, presentations and research/critical papers.

Concentrators in French and Francophone Studies are strongly encouraged to spend one or two semesters (usually in their junior year) in France or in a Francophone country to derive the richest benefits of linguistic and cultural immersion. Information on Brown in France and approved alternative programs in French-speaking countries is available from the Office of International Programs (http://www.brown.edu/Administration/OIP) office and the OIP website. Other summer programs can be found on the French Embassy website.

Students who have an outstanding record in their concentration courses, have completed at least six concentration courses by the first semester of their senior year, and are highly recommended by two professors, are eligible to apply for admission to the Honors program (http://www.brown.edu/academics/french-studies/undergraduate/honors-program).

### Concentration Requirements

A minimum of 10 courses is required for the concentration in French and Francophone Studies. Concentrators must observe following guidelines when planning their concentration. It is recommended that course choices for each semester be discussed with the department's concentration advisor.

**Note:** A maximum of four courses taken during a single semester (and a maximum of five courses from an entire year) in France or a Francophone country may count toward the concentration. Our concentrators are strongly encouraged to spend significant time in France or in a Francophone country to derive the richest benefits of linguistic and cultural immersion. Through the Brown-in-France program administered by OIP and departmental faculty, students can enroll directly in French institutions.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 0600</td>
<td>Writing and Speaking French II (is accepted for concentration credit)</td>
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</tbody>
</table>

### Required Courses

One (and no more than two) of the following 0720, 820, 1010 courses is required. At least two 1000-level courses are required.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 0720A</td>
<td>De l'amour courtois au désir postmoderne</td>
</tr>
<tr>
<td>FREN 0720B</td>
<td>The French Novel Today</td>
</tr>
<tr>
<td>FREN 0820A</td>
<td>Identité et différence dans le monde francophone</td>
</tr>
<tr>
<td>FREN 1010A</td>
<td>Littérature et culture: Margins of Modernity</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>FREN 1010A</td>
<td>Advanced Oral and Written French: Traduction</td>
</tr>
<tr>
<td>FREN 1010F</td>
<td>Advanced Written and Oral French: Regards sur la France actuelle</td>
</tr>
<tr>
<td>FREN 1010C</td>
<td>Advanced Oral and Written French: A table!</td>
</tr>
<tr>
<td>FREN 1010J</td>
<td>Advanced Oral and Written French: Photographie</td>
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</tbody>
</table>

### Electives

At least two 1000-level courses are required.

1. The senior seminar (senior year spring)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN 1900H</td>
<td>La France en guerre</td>
</tr>
<tr>
<td>FREN 1900K</td>
<td>Extrême droite en France</td>
</tr>
<tr>
<td>FREN 1900L</td>
<td>French-American (Dis)Connections: histoire, société, culture</td>
</tr>
</tbody>
</table>

### At least one course must cover a pre-Revolutionary period

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>FREN 1000A</td>
<td>Littérature et intertextualité: du Moyen-Age jusqu'à la fin du XVIIème s</td>
</tr>
<tr>
<td>FREN 1000B</td>
<td>Littérature et culture: Chevaliers, sorcières, philosophes, et poètes</td>
</tr>
<tr>
<td>FREN 1030A</td>
<td>L'univers de la Renaissance: XVe et XVIe siècles</td>
</tr>
<tr>
<td>FREN 1030B</td>
<td>The French Renaissance: The Birth of Modernity?</td>
</tr>
<tr>
<td>FREN 1040A</td>
<td>Civilité et littérature</td>
</tr>
<tr>
<td>FREN 1040B</td>
<td>Pouvoirs de la scène: le théâtre du XVIIIe siècle</td>
</tr>
<tr>
<td>FREN 1040C</td>
<td>Le Grand Siècle à l'écran</td>
</tr>
<tr>
<td>FREN 1040D</td>
<td>Molière et son monde</td>
</tr>
<tr>
<td>FREN 1050A</td>
<td>&quot;Family Values&quot;: Représentations littéraires de la famille au 18ème siècle</td>
</tr>
<tr>
<td>FREN 1050B</td>
<td>Fictions de l'individu</td>
</tr>
<tr>
<td>FREN 1050D</td>
<td>The Age of Voltaire: Culture, Pensée, Société</td>
</tr>
<tr>
<td>FREN 1050E</td>
<td>French Lovers: Séduction et libertinage sous l'Ancien Régime</td>
</tr>
<tr>
<td>FREN 1050F</td>
<td>Espace public; espace privé</td>
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<tr>
<td>FREN 1050G</td>
<td>Le corps des Lumières</td>
</tr>
<tr>
<td>FREN 1050H</td>
<td>The Age of Voltaire: Lumières et modernité</td>
</tr>
<tr>
<td>FREN 1100F</td>
<td>Contes et nouvelles du Moyen Age</td>
</tr>
<tr>
<td>FREN 1410I</td>
<td>Sorcellerie et Renaissance: le sort de la sorcière</td>
</tr>
</tbody>
</table>

### At least one course required as a post-Revolutionary period

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>FREN 1130E</td>
<td>Le Poète et le quotidien</td>
</tr>
<tr>
<td>FREN 1060A</td>
<td>Décadence</td>
</tr>
<tr>
<td>FREN 1060B</td>
<td>Gender and the Novel</td>
</tr>
<tr>
<td>FREN 1060D</td>
<td>L'Orient littéraire</td>
</tr>
<tr>
<td>FREN 1060E</td>
<td>Genre, sexualité, et le roman du XIXe siècle</td>
</tr>
<tr>
<td>FREN 1060F</td>
<td>Paris: Capital of the 19th Century</td>
</tr>
<tr>
<td>FREN 1070A</td>
<td>Avant-Gardes</td>
</tr>
<tr>
<td>FREN 1070B</td>
<td>Emergent literature: Postcolonial Nations and Cultural Identity</td>
</tr>
<tr>
<td>FREN 1070C</td>
<td>Figures du roman français au XX siècle</td>
</tr>
<tr>
<td>FREN 1070E</td>
<td>Littérature, appartenance et identité</td>
</tr>
<tr>
<td>FREN 1330A</td>
<td>Fairy Tales and Culture</td>
</tr>
<tr>
<td>FREN 1330C</td>
<td>French Women Writers</td>
</tr>
<tr>
<td>FREN 1410D</td>
<td>L'identité française</td>
</tr>
<tr>
<td>FREN 1420C</td>
<td>Gender Theory and Politics in France</td>
</tr>
</tbody>
</table>
Undergraduate Concentration—Gender and Sexuality Studies

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. No more than two courses may count for multiple concentrations.

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. GNSS 1990. A senior seminar which counts as your capstone course. Senior seminar participants are expected to write a research essay. The senior seminar fulfills the second half of Brown's writing requirement.
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 at the beginning of their seventh semester. Honors concentrators fulfill the 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 GNSS concentration webpage (http://www.brown.edu/research/pembroke-center/gender-and-sexuality-studies/undergraduate-concentration-gender-sexuality-studies) at the site (http://www.brown.edu/research/pembroke-center/gender-and-sexuality-studies/undergraduate-concentration-gender-sexuality-studies#http://www.brown.edu/research/pembroke-center/gender-and-sexuality-studies/undergraduate-concentration-gender-sexuality-studies)

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure (or advanced placement)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
<td>3</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or more advanced)</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics (or more advanced)</td>
<td>3</td>
</tr>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations (or more advanced)</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or more advanced)</td>
<td>3</td>
</tr>
</tbody>
</table>

Concentration courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
<td>1</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
<td></td>
</tr>
<tr>
<td>GEOL 1420</td>
<td>Petrology</td>
<td></td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
<td></td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>GEOL 0310</td>
<td>Fossil Record</td>
<td></td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Estuarine Oceanography</td>
<td></td>
</tr>
<tr>
<td>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
<td></td>
</tr>
<tr>
<td>GEOL 1330</td>
<td>Global Environmental Remote Sensing</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1370</td>
<td>Environmental Geochemistry</td>
<td>1</td>
</tr>
</tbody>
</table>

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: 2
MATH 0090  Introductory Calculus, Part I
MATH 0100  Introductory Calculus, Part II
or another more advanced math or statistics course
CHEM 0330  Equilibrium, Rate, and Structure (or advanced placement) 1

Select one of the following Series: 2
PHYS 0050 & PHYS 0060 Foundations of Mechanics and Modern Physics (or more advanced)
ENGN 0030 & ENGN 0040 Introduction to Engineering and 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
GEOL 1410  Mineralogy 1
GEOL 1420  Petrology 1
GEOL 1450  Structural Geology 1
A field course, or approved substitute 1
Select four courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor.
GEOL 1970  Individual Study of Geologic Problems (Senior Research Thesis) 1

Total Credits 19

1 Advanced placement may be substituted for the first semester of physics.

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 provides a broad introduction to the geologic and biologic processes that shape the Earth and our environment. It is recommended for students seeking a liberal education and a general understanding of Earth processes, including the evolution of climate and the environment, global environmental change and Earth history. The program prepares students for careers in environmental science, geology, ecology, oceanography, and 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 at the level of: 2
MATH 0090  Introductory Calculus, Part I (or more advanced)
PHYS 0050  Foundations of Mechanics (or more advanced)
ENGN 0030  Introduction to Engineering (or more advanced, or courses in data analysis and statistics)

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 1240  Stratigraphy and Sedimentation 1
Select three Biology courses from the following: 3
BIOL 0390  Vertebrate Evolution and Diversity
BIOL 0410  Invertebrate Zoology
BIOL 0415  Microbes in the Environment
BIOL 0420  Principles of Ecology
BIOL 0430  The Evolution of Plant Diversity
BIOL 0440  Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction and Adaptive Responses
BIOL 0480  Evolutionary Biology
BIOL 1470  Conservation Biology
BIOL 1480  Terrestrial Biogeochemistry and the Functioning of Ecosystems
BIOL 1500  Plant Physiological Ecology
BIOL 1880  Comparative Biology of the Vertebrates
Three geological sciences courses from the following: 3
GEOL 0580  Foundations of Physical Hydrology
GEOL 1110  Estuarine Oceanography
GEOL 1120  Paleoclimatology
GEOL 1130  Ocean Biogeochemical Cycles
GEOL 1150  Limnology: The Study of Lakes
GEOL 1330  Global Environmental Remote Sensing
GEOL 1370  Environmental Geochemistry
GEOL 1380  Environmental Stable Isotopes
GEOL 1510  Introduction to Atmospheric Dynamics

Total Credits 23

Standard program for the Sc.B. degree

This program is recommended for students interested in graduate study and careers in the Earth, Environmental, or Biological Sciences. It is relevant for students interested in environmental science, paleoclimate, Earth systems science, biogeochemistry, oceanography, or paleobiology.

Five 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)
or ENGN 0030  Introduction to Engineering
Select two courses in mathematics at the level of: 2
MATH 0090  Introductory Calculus, Part I
MATH 0100  Introductory Calculus, Part II (or more advanced, or courses in data analysis)
Earth history, Earth processes, and environmental and resource issues. In applying physical and chemical principles toward an understanding of formation, and analyzing lunar rock samples for water content.

Year or in the summer, in areas such as experimental studies of magma and collaborative learning, and on practice in communication. There are many activities, and metamorphism. The AB degree requires a total of 14 courses, including 7 geoscience courses and 4 chemistry courses, plus some 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 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 physics courses and one research course. 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### 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.

### 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
- 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

Three additional chemistry courses

Select one of the following Series:

- GEOL 1410 Mineralogy & GEOL 1420 Petrology
- GEOL 1130 Ocean Biogeochemical Cycles & GEOL 1370 Environmental Geochemistry

Two additional courses from upper level geological sciences, math, or supporting sciences with approval from the department concentration advisor.

### Total Credits: 19

#### 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
- or PHYS 0060 Foundations of Electromagnetism and Modern Physics
- ENGN 0030 Introduction to Engineering
- & ENGN 0040 Dynamics and Vibrations

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
  - GEOL 1420 Petrology

  Plus one from:

  - GEOL 1240 Stratigraphy and Sedimentation
  - GEOL 1330 Global Environmental Remote Sensing
  - GEOL 1450 Structural Geology
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
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 of the departmental concentration advisor
GEOL 1970  Individual Study of Geologic Problems

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 planets, over short and long timescales. The AB degree requires a total of 14 courses, including 6 geoscience courses, 3 physics or engineering courses, and 3 math and applied math courses. The ScB degree requires a total of 20 courses, including 6 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses; students can choose courses from both solid Earth geophysics and climate science themes. Geoscience courses emphasize an analytical and process-oriented approach, with hands-on experiences in labs and on field trips. Active and collaborative learning is encouraged, as is practice in written and oral communication. There are many opportunities for students to engage in research (typically in paid positions) during the academic year or in the summer, in areas such as analysis of seismic waves in subduction zones, theoretical modeling of convection in the Earth’s mantle, modeling the effects of the warming climate in the oceans and atmosphere, and remote sensing of how climate change affects vegetation.

Standard program for the A.B. degree

Recommended for students seeking a liberal education and interested in applying physical and mathematical principles toward an understanding of the processes affecting planets, Earth, and the environment and how they are modeled. Some course requirements may be flexible based on consultation with concentration advisor.

GEOL 0220  Physical Processes in Geology
GEOL 0250  Computational Approaches to Modelling and Quantitative Analysis in Natural Sciences: An Introduction
or GEOL 0350  Mathematical Methods of Fluid and Solid Geophysics and Geology

Four theme courses (choose either the Solid Earth Geophysics Theme or the Climate Science Theme) 4

Solid Earth Geophysics Theme
GEOL 0230  Geochemistry: Earth and Planetary Materials and Processes (solid Earth geophysics theme)
GEOL 1610  Solid Earth Geophysics (solid Earth geophysics theme)

And select two of the following:
GEOL 1410  Mineralogy (solid Earth geophysics theme)
GEOL 1420  Petrology
GEOL 1450  Structural Geology (solid Earth geophysics theme)
GEOL 1620  Continuum Physics of the Solid Earth (solid Earth geophysics theme)

Climate Science Theme
GEOL 0240  Earth: Evolution of a Habitable Planet (climate science theme)
GEOL 1350  Weather and Climate

And select two from the following:
GEOL 1130  Ocean Biogeochemical Cycles (climate science theme)
GEOL 1310  Global Water Cycle (climate science theme)
GEOL 1430  Principles of Planetary Climate (climate science theme)
GEOL 1510  Introduction to Atmospheric Dynamics (climate science theme)
GEOL 1520  Ocean Circulation and Climate

Choose one of the following:
PHYS 0050  Foundations of Mechanics
PHYS 0070  Analytical Mechanics
ENGN 0040  Dynamics and Vibrations

Choose one of the following:
PHYS 0060  Foundations of Electromagnetism and Modern Physics
ENGN 0310  Mechanics of Solids and Structures
ENGN 0810  Fluid Mechanics 1

Choose one of the following:
PHYS 0470  Electricity and Magnetism
PHYS 0500  Advanced Classical Mechanics
PHYS 1600  Computational Physics
ENGN 0510  Electricity and Magnetism
ENGN 0810  Fluid Mechanics 1,2
ENGN 1370  Advanced Engineering Mechanics
GEOL 1820  Geophysical Fluid Dynamics

Three courses in Mathematics, including:
APMA 0330  Methods of Applied Mathematics I, II
or APMA 0340  Methods of Applied Mathematics I, II
CHEM 0330  Equilibrium, Rate, and Structure (or advanced placement)

One additional course from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor. 3

Total Credits 14

1 One course cannot be used to satisfy two requirements.
2 ENGN 0810 or GEOL 1820 are recommended for those completing the Climate Science theme.
3 In addition to courses listed elsewhere, in the Geology-Physics/Math concentrations, these courses are of particular relevance:
GEOL 0810, GEOL 1320, GEOL 1710, GEOL 1960A.
Standard program for the Sc.B. degree

This program is recommended for students interested in graduate study and careers in geophysics, climate science and related fields. Students will be prepared to understand and use models, make measurements, and use theories of the processes studied in these fields. Some course requirements may be flexible based on consultation with concentration advisor.

GEOL 0220 Physical Processes in Geology
GEOL 1430 Principles of Planetary Climate
GEOL 1610 Solid Earth Geophysics
GEOL 0250 Computational Approaches to Modelling and Quantitative Analysis in Natural Sciences: An Introduction
or GEOL 0350 Mathematical Methods of Fluid and Solid Geophysics and Geology

Five theme courses (choose either the Solid Earth Geophysics Theme or the Climate Science Theme):

Solid Earth Geophysics Theme
GEOL 0230 Geochemistry: Earth and Planetary Materials and Processes
GEOL 1450 Structural Geology
GEOL 1620 Continuum Physics of the Solid Earth
And choose two from the following:
GEOL 1410 Mineralogy
GEOL 1420 Petrology
GEOL 1560 Global Tectonics
GEOL 1650 Earthquake Seismology (Climate Science Theme)
Or a field course

Climate Science Theme
GEOL 0240 Earth: Evolution of a Habitable Planet
Choose one:
GEOL 1510 Introduction to Atmospheric Dynamics
GEOL 1520 Ocean Circulation and Climate
And choose three from the following: ¹
GEOL 1130 Ocean Biogeochemical Cycles
GEOL 1310 Global Water Cycle
GEOL 1330 Global Environmental Remote Sensing
GEOL 1510 Introduction to Atmospheric Dynamics
GEOL 1520 Ocean Circulation and Climate
Or a field or sea course

PHYS 0050 Foundations of Mechanics
or PHYS 0070 Analytical Mechanics
or ENGN 0040 Dynamics and Vibrations
PHYS 0060 Foundations of Electromagnetism and Modern Physics
or ENGN 0310 Mechanics of Solids and Structures
or ENGN 0810 Fluid Mechanics
Select two of the following: ¹,²
PHYS 0470 Electricity and Magnetism
PHYS 0500 Advanced Classical Mechanics
PHYS 1600 Computational Physics
ENGN 0510 Electricity and Magnetism
ENGN 0810 Fluid Mechanics
ENGN 1370 Advanced Engineering Mechanics
GEOL 1820 Geophysical Fluid Dynamics
Three courses in mathematics including
APMA 0330 Methods of Applied Mathematics I, II
or APMA 0340 Methods of Applied Mathematics I, II

Two additional courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor. ²

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1970</td>
<td>Individual Study of Geologic Problems</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1010</td>
<td>Individual Study of Geology</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1350</td>
<td>Geological Analysis and Field Course</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 20

¹ One course cannot be used to satisfy two requirements
² ENGN 0810 or GEOL 1820 are recommended for those completing the Climate Science theme.
³ In addition to courses listed elsewhere, in the Geology-Physics/Math concentrations, these courses are of particular relevance: GEOL 0810, GEOL 1320, GEOL 1710, GEOL 1960A.

German Studies

German Studies exposes students to the language, literature, and culture of the German speaking areas of Central Europe. Concentrators combine intensive study of the German language with interdisciplinary studies by complementing courses from the German Studies core program with courses from other departments that deal with topics from the German cultural tradition. The quest for national identity that dominated German history in the nineteenth and twentieth centuries has been augmented by contemporary Germany's efforts to come to terms with its past and create new ways of dealing with diversity. Our curriculum therefore looks 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.

In spring 2017, Professor Jane Sokolosky will serve as concentration advisor. Professor Kristina Mendicino will return as concentration advisor in fall 2017.

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.

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 that provides a rigorous foundation in the biological sciences with substantive 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 activity. Background courses provide the essential foundations in chemistry, mathematics, methods, and basic biology. These support the Biology core, which is comprised of a flexible menu of intermediate and advanced courses. A required portion of the Biology core is Genetics, a cornerstone of human biology and its interface with other fields. The Biology core underscores the related coursework within the Health and Disease Theme. The Theme courses are social science and humanities courses that form a cohesive, thoughtful grouping. Theme groupings must be approved by the advisor. A required senior capstone course or activity builds on the program's focus.

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 equivalent placement)</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td>MATH 0050 &amp; MATH 0060</td>
<td>Analytic Geometry and Calculus</td>
</tr>
<tr>
<td>OR</td>
<td>MATH 0100 or MATH 0170</td>
<td>Introductory Calculus, Part II or Advanced Placement Calculus</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</td>
<td>1</td>
</tr>
</tbody>
</table>

Statistics course chosen with advisor's help. 1

CORE PROGRAM:

In addition to the stated background in Chemistry, Math, Biology and Statistics, five (5) Biology plus four (4) coherently-grouped Theme courses, plus a Senior-Year Capstone course or project. (See description of Capstone at link below this table).

BIOLOGY:

Five (5) courses, including:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>-OR-</td>
<td></td>
</tr>
<tr>
<td>BIOL 0480 &amp; BIOL 0500</td>
<td>Evolutionary Biology and Cell and Molecular Biology</td>
</tr>
<tr>
<td>-OR-</td>
<td></td>
</tr>
<tr>
<td>BIOL 0480 &amp; BIOL 0510</td>
<td>Evolutionary Biology and Introductory Microbiology</td>
</tr>
<tr>
<td>-OR-</td>
<td></td>
</tr>
<tr>
<td>BIOL 0480 &amp; BIOL 0280</td>
<td>Evolutionary Biology and Biochemistry</td>
</tr>
</tbody>
</table>

Five (5) courses, including:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0400</td>
<td>Biological Design: Structural Architecture of Organisms</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIOL 1800</td>
<td>Animal Locomotion</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
</tr>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
</tr>
</tbody>
</table>

One course in organismal/population biology such as:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0370</td>
<td>Experimental Evolution</td>
</tr>
<tr>
<td>BIOL 0380</td>
<td>The Ecology and Evolution of Infectious Disease</td>
</tr>
</tbody>
</table>

The Theme courses are social science and humanities courses that form a cohesive, thoughtful grouping. Theme groupings must be approved by the advisor. A required senior capstone course or activity builds on the program's focus.

Select one course in structure/function/development such as:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0440</td>
<td>Vertebrate Evolution and Diversity</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Biological Design: Structural Architecture of Organisms</td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIOL 0415</td>
<td>Microbes in the Environment</td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
</tr>
<tr>
<td>ENVS 0490</td>
<td>Environmental Science in a Changing World</td>
</tr>
</tbody>
</table>

Or a course from the NEUR 1940 series

Two Biology or Neuroscience courses. At least one must be at the advanced level.

THEME: With the advisor's assistance, a theme is chosen and a cohesive set of courses as selected from outside of Biology. See Notes below:

SENIOR CAPSTONE ACTIVITY: Must be conducted during the senior year, fulfilled by one of the following, and related to the student's chosen theme:

1) Advisor approved senior seminar or advanced course related to the theme

2) One semester of independent research/independent study (BIOL 1950 or BIOL 1960); in the case of a senior honors thesis, both BIOL 1950 and BIOL 1960 can be used as the capstone.

3) An appropriate internship with a scholarly context can be used if coupled with a semester of independent study mentored by a Brown faculty member.

Total Credits

14

THEME:

- Approved courses must be above the introductory level and at least one must be 1000-level or above.
- No more than TWO courses from a given department may be included in the theme portion.
- NOTE: Beginning with the Class of 2020: Health Systems, Structure and Policy and Women's/Children Health will be eliminated.
- Students will then select from FOUR theme options: 1) Health Behavior, 2) Environmental Health, 3) Global/International Health, 4) Social Context of Health and Disease.


HONORS: See more information about Honors at http://www.brown.edu/academics/biology/undergraduate-education/.

Hispanic Literatures and Culture

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 Spanish language program offers a sequence of courses ranging from basic to advanced. Students at all levels develop proficiency in speaking, listening, reading, and writing while also studying the cultures and societies of the contemporary Spanish-speaking world. The Hispanic Literatures and Culture 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 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, and students in this concentration are encouraged to broaden their perspectives by taking relevant courses in other departments. Most choose to strengthen their academic preparation by participating in a study abroad program in Spain or Latin America and by engaging with Hispanic communities in the United States. The concentration requires a minimum of ten courses. 700-level courses provide fundamental tools for critical analysis and opportunities for developing advanced skills in the Spanish language. In courses at the 1000 level, students explore particular authors, genres, periods, or special topics and continue to hone their skills in literary and cultural analysis.

Prerequisite

Between one and three 700-level courses in Hispanic Studies, including at least one of:

- HISP 0730 Encounters: Latin America in Its Literature and Culture
- HISP 0740 Intensive Survey of Spanish Literature
- HISP 0760 Transatlantic Crossings: Readings in Hispanic Literatures

Remaining Courses

Select at least three 1000-level courses in Hispanic Studies at Brown. These provide more specialized preparation in major areas of Hispanic Studies, including works and topics from the centuries and pertaining to both Spain and Latin America. Concentrators must take at least six courses (at either the 0700 or 1000 level, with a maximum of three 0700 level courses) in Hispanic Studies at Brown, including one with the WRIT designation.

Concentrators may apply up to four related courses from Study Abroad, transfer credit, and other departments at Brown (e.g., Comparative Literature, History, Ethnic Studies, Anthropology) toward the concentration in Hispanic Studies as long as they deal with Spanish or Latin American themes and/or Peninsular or Latin American culture. Any courses outside the Department of Hispanic Studies must be approved by the Concentration Advisor on a case by case basis. Please note that a maximum of two courses for the concentration can be taken in English, and one course can be taken S/NC. Students planning to pursue honors in the concentration must take all courses for a grade.

Total Credits = 10

- E-Portfolio: As their capstone work, all Hispanic Studies concentrators must complete an E-Portfolio in ASK in their last year of studies. We encourage you to share your written work, your projects, and your reflections on concentration-related experiences (study abroad, community work, internships, etc.) with the wider public at Brown and beyond, but only as you see fit.

Honors Thesis or Project

Students with an excellent record in their Hispanic Studies courses will be eligible to write an Honors Thesis or write and produce an Honors Project. Typically the Honors Thesis is a major research paper of approximately 40 to 80 pages in Spanish, depending on the topic and treatment necessary. Alternatively, a student may, with prior permission of the Hispanic Studies Concentration Advisor, present a film, gallery exhibition, or other appropriate project, together with a paper that clearly demonstrates the academic foundations and relevance of the project. For additional details regarding Honors Thesis in Hispanic Studies, please refer to our website or consult with the Concentration Advisor.

Concentration Advisor:

Silvia Sobral

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.

Concentration Requirements

1. Basic Requirement: A concentration in History consists of a minimum of ten semester-long courses; of these, at least eight must be offered by the Brown University History Department, including cross-listed courses. (Students who spend more than one semester at another institution, must take at least 7 HIST courses - see “Transferring Courses” below.)

2. Courses below 1000: Students may count no more than four courses numbered below 1000 toward the concentration requirements. Students considering a concentration in History are encouraged to take First Year and Sophomore seminars, as well as courses in the HIST 0150 and 0200 series, for an introduction to historical reasoning, discussion, and writing.

3. Field of Focus: The field of focus must include a minimum of four courses and serves as a “track” determined by the student concentrating in History. The field of focus may be geographic or thematic. Students who choose a geographic focus in Europe or North America must also provide a chronological focus (such as Early Modern Europe, Early North America, or Modern North America). Students who are interested in a thematic or transnational focus (such as Comparative Colonialisms, Law & Society, Science & Technology, Environment & Medicine or the Ancient World) may include courses from different geographic and chronological areas. All students should consult a concentration advisor early in the process about their potential field of focus. All fields are subject to approval by the concentration advisor.

4. Geographical Distribution: Concentrators must take at least two courses in three different geographic areas. These are:
   - Africa
   - East Asia
   - Europe
   - Global
   - Latin America and the Caribbean
   - Middle East and South Asia
   - North America

“Global” courses are defined as those that deal with at least three different regions of the world.

For details on which courses count toward which geographical distribution requirement click here (https://docs.google.com/spreadsheets/d/1NT5fZ7AzqXDCiVZxTdsdceSmMD5v28ke6550tBmE/edit?#gid=2138711521)

5. Chronological Distribution: All concentrators must complete at least two courses designated as “P” (for pre-modern).

For a listing of which courses count as “P” courses click here

6. Capstone Seminar: All concentrators must complete at least one capstone seminar (these will be HIST 1960s and HIST 1970s series courses in the new numbering system.) These seminars are designed to serve as an intellectual culmination 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. 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
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. History courses taught by trained historians from other institutions (e.g., from study abroad or a previous institution) may be applied toward the chronological distribution requirement so long as at least 2/3 of the course content examine the "premodern" or "early modern" periods.

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. Students taking courses in other Brown-study programs or at other universities in the United States must apply to the Transfer Credit advisor and then get approval from a concentration advisor.

8. 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.

COURSES BELOW 1000

LECTURE COURSES

150's: Thematic Courses that Cut Across Time and Place

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 0150A</td>
<td>History of Capitalism</td>
</tr>
<tr>
<td>HIST 0150B</td>
<td>The Philosophers' Stone: Alchemy From Antiquity to Harry Potter</td>
</tr>
<tr>
<td>HIST 0150C</td>
<td>Locked Up: A Global History of Prison and Captivity</td>
</tr>
<tr>
<td>HIST 0150D</td>
<td>Refugees: A Twentieth-Century History</td>
</tr>
<tr>
<td>HIST 0150F</td>
<td>Pirates</td>
</tr>
<tr>
<td>HIST 0150G</td>
<td>History of Law: Great Trials</td>
</tr>
<tr>
<td>HIST 0150H</td>
<td>Foods and Drugs in History</td>
</tr>
</tbody>
</table>

Gateway Lecture Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 0202</td>
<td>African Experiences of Empire</td>
</tr>
<tr>
<td>HIST 0203</td>
<td>Modern Africa: From Empire to Nation-State</td>
</tr>
<tr>
<td>HIST 0212</td>
<td>Histories of East Asia: China</td>
</tr>
<tr>
<td>HIST 0214</td>
<td>Histories of East Asia: Japan</td>
</tr>
<tr>
<td>HIST 0215</td>
<td>Modern Korea: Contending with Modernity</td>
</tr>
<tr>
<td>HIST 0218</td>
<td>The Making of Modern East Asia</td>
</tr>
<tr>
<td>HIST 0228A</td>
<td>War and Peace in Modern Europe</td>
</tr>
<tr>
<td>HIST 0232</td>
<td>Clash of Empires in Latin America</td>
</tr>
<tr>
<td>HIST 0233</td>
<td>Colonial Latin America</td>
</tr>
<tr>
<td>HIST 0234</td>
<td>Modern Latin America</td>
</tr>
<tr>
<td>HIST 0243</td>
<td>Modern Middle East Roots: 1492 to the Present</td>
</tr>
<tr>
<td>HIST 0244</td>
<td>Understanding the Middle East: 1800s to the Present</td>
</tr>
<tr>
<td>HIST 0247</td>
<td>Civilization, Empire, Nation: Competing Histories of the Middle East</td>
</tr>
<tr>
<td>HIST 0250</td>
<td>American Exceptionalism: The History of an Idea</td>
</tr>
<tr>
<td>HIST 0252</td>
<td>The American Civil War</td>
</tr>
<tr>
<td>HIST 0253</td>
<td>Religion, Politics, and Culture in America, 1865 - Present</td>
</tr>
<tr>
<td>HIST 0257</td>
<td>Modern American History: New and Different Perspectives</td>
</tr>
<tr>
<td>HIST 0270A</td>
<td>From Fire Welders to Empire Builders: Human Impact on the Global Environment before 1492</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 0270B</td>
<td>From the Columbian Exchange to Climate Change: Modern Global Environmental History</td>
</tr>
<tr>
<td>HIST 0273A</td>
<td>The First Globalization: The Portuguese in Africa, Asia, and the Americas</td>
</tr>
<tr>
<td>HIST 0276B</td>
<td>Science and Capitalism</td>
</tr>
<tr>
<td>HIST 0285A</td>
<td>Modern Genocide and Other Crimes against Humanity</td>
</tr>
<tr>
<td>HIST 0286A</td>
<td>History of Medicine I: Medical Traditions in the Old World Before 1700</td>
</tr>
<tr>
<td>HIST 0286B</td>
<td>History of Medicine II: The Development of Scientific Medicine in Europe and the World</td>
</tr>
</tbody>
</table>

SEMINAR COURSES

First-Year Seminars

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 0505</td>
<td>Africa and the Transatlantic Slave Trade</td>
</tr>
<tr>
<td>HIST 0510A</td>
<td>Shanghai in Myth and History</td>
</tr>
<tr>
<td>HIST 0520A</td>
<td>Athens, Jerusalem, and Baghdad: Three Civilizations, One Tradition</td>
</tr>
<tr>
<td>HIST 0521A</td>
<td>Christianity in Conflict in the Medieval Mediterranean</td>
</tr>
<tr>
<td>HIST 0521M</td>
<td>The Holy Grail and the Historian's Quest for the Truth</td>
</tr>
<tr>
<td>HIST 0522G</td>
<td>An Empire and Republic: The Dutch Golden Age</td>
</tr>
<tr>
<td>HIST 0522N</td>
<td>Reason, Revolution and Reaction in Europe</td>
</tr>
<tr>
<td>HIST 0522O</td>
<td>The Enlightenment</td>
</tr>
<tr>
<td>HIST 0523A</td>
<td>The Holocaust in Historical Perspective</td>
</tr>
<tr>
<td>HIST 0523B</td>
<td>State Surveillance in History</td>
</tr>
<tr>
<td>HIST 0523O</td>
<td>The Academic as Activist</td>
</tr>
<tr>
<td>HIST 0535A</td>
<td>Atlantic Pirates</td>
</tr>
<tr>
<td>HIST 0537A</td>
<td>Popular Culture in Latin America and the Caribbean</td>
</tr>
<tr>
<td>HIST 0537B</td>
<td>Tropical Delights: Imagining Brazil in History and Culture</td>
</tr>
<tr>
<td>HIST 0540F</td>
<td>Women in the Middle East, 7th-20th C.: Patriarchal Visions, Revolutionary Voices</td>
</tr>
<tr>
<td>HIST 0550A</td>
<td>Object Histories: The Material Culture of Early America</td>
</tr>
<tr>
<td>HIST 0551A</td>
<td>Abraham Lincoln: Historical and Cultural Perspectives</td>
</tr>
<tr>
<td>HIST 0555B</td>
<td>Robber Barons</td>
</tr>
<tr>
<td>HIST 0556A</td>
<td>Sport in American History</td>
</tr>
<tr>
<td>HIST 0557A</td>
<td>Slavery and Historical Memory in the United States</td>
</tr>
<tr>
<td>HIST 0557B</td>
<td>Slavery, Race, and Racism</td>
</tr>
<tr>
<td>HIST 0557C</td>
<td>Narratives of Slavery</td>
</tr>
<tr>
<td>HIST 0559A</td>
<td>Culture and U.S. Empire</td>
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Sophomore Seminars

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### COURSES WITH NUMBERS 1000-1999

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<td>‘Naturally Chic’: Fashion, Gender, and National Identity in French History</td>
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<td>Enslaved! Indians and Africans in an Unfree Atlantic World</td>
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<td>The Anthropocene: Climate Change as Social History</td>
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<td>Gender, Race, and Medicine in the Americas</td>
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</table>
History Concentrators in the 5th or 6th semester may apply for honors. To be admitted, 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.

Students who wish to enroll in honors are recommended to take HIST 1992, “History Honors Workshop for Prospective Students.” HIST 1992 can count as one of the 10 courses required for graduation in history. HIST 1992 students who prepare a prospectus that receives a grade of A- or above will be admitted to the honors program. Students in their 7th semester who have not taken HIST 1992 (including but not limited to those who are away from Brown during that semester) may apply to the program by submitting a prospectus no later than the first day of that semester. All honors students must complete one semester of HIST 1993 “History Honors Workshop for Thesis Writers, Part I” and one semester of HIST 1994 “History Honors Workshop for Thesis Writers, Part II.” HIST 1993 and HIST 1994 do not count towards the 10 courses required for graduation in history; they are an additional two courses to the minimum of 10 required history courses. Students who contemplate enrolling in the honors program in History should consult the honors section of the department website. They are also encouraged to meet with the Director of Undergraduate Studies, who serves as the honors advisor.

### 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 areas 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.

### History of Art and Architecture Requirements

To complete the concentration, you will be expected to take a minimum of 11 courses (11 for honors). Our goal in setting out these requirements is to welcome students into a lively and diverse department that also shares a cohesive and strong commitment to the field. We as a faculty want students to cultivate their special interests and also to venture into areas that may not be so familiar but that will open new and exciting possibilities for them. Ten courses are only the minimum requirement. Beyond that students are encouraged to take courses at RISD, participate in study abroad programs, and take courses in other Brown departments. As we are a truly interdisciplinary department, you will also find that our faculty collaborates with members of other departments to teach courses that bring together the strengths of different disciplines. We encourage both experimentation and concentration. Because foreign language skills are essential for pursuing art historical studies in a professional environment or in graduate school, HIAA requires knowledge equivalent to passing a 500-level language course at Brown.

Our general survey in history of art and architecture (HIAA 0010) is an excellent foundation for the concentration. It is not a prerequisite for taking other lecture courses but you can count it as one of the 4 non-core courses required for the concentration (see below for core and non-core courses).

Since the history of art and architecture addresses issues of practice within specific historical contexts, concentrators are encouraged to take at least 1 studio art course. Courses in history also train students in methods and approaches that are highly relevant to the history of art and architecture. Study abroad can be a valuable enrichment of the academic work available on campus, in that it offers opportunities for first-hand knowledge of the works of art and monuments 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 concentrators program of study.

Four core general lecture courses, numbered HIAA 0020 - HIAA 0940. The courses should be distributed between three of the seven available areas of the discipline: Ancient; Medieval; Islamic; East Asian; Latin American; Early Modern (ca. 1400-1800); Modern, Contemporary

- HIAA 0010 A Global History of Art and Architecture
- HIAA 0011 Introduction to the History of Architecture and Urbanism
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<td>HIAA 0040</td>
<td>Introduction to Medieval Art and Architecture</td>
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<td>HIAA 0041</td>
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<td>HIAA 0042</td>
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<td>HIAA 0081</td>
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<td>HIAA 0082</td>
<td>The Age of Rubens and Rembrandt: Visual Culture of the Netherlands in the Seventeenth Century</td>
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<td>HIAA 0070</td>
<td>Introduction to American Art: The 19th Century</td>
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<td>HIAA 0074</td>
<td>Nineteenth-Century Architecture</td>
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<td>HIAA 0075</td>
<td>Introduction to the History of Art: Modern Photography</td>
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<td>HIAA 0077</td>
<td>Revolutions, Illusions, Impressions: A History of Nineteenth-Century Art</td>
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<td>Architecture of the House Through Space and Time</td>
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<td>HIAA 0089</td>
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<td>HIAA 0100</td>
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<td>HIAA 0321</td>
<td>Toward a Global Late Antiquity: 200-800 CE</td>
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<td>HIAA 0340</td>
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<td>HIAA 0400</td>
<td>Early Christian, Jewish, and Byzantine Art and Architecture</td>
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<td>Muslims, Jews and Christians in Medieval Iberia</td>
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<td>HIAA 0550</td>
<td>Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany</td>
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<td>HIAA 0560</td>
<td>Popes and Pilgrims in Renaissance Rome</td>
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<td>HIAA 0570</td>
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<td>HIAA 0580</td>
<td>Word, Image and Power in Renaissance Italy</td>
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<td>HIAA 0600</td>
<td>From Van Eyck to Bruegel</td>
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<td>Cultural History of the Netherlands in a Golden Age and a Global Age</td>
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<td>Giotto to Watteau: Introduction to the Art of Europe from Renaissance to French Revolution</td>
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<td>HIAA 0830</td>
<td>Revolutionary Forms: 100 Years of Art and Politics in Latin America</td>
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<td>History of Rhode Island Architecture</td>
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<td>HIAA 0870</td>
<td>20th Century British Art: Edwardian to Contemporary</td>
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<td>HIAA 0881</td>
<td>City and Cinema</td>
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Two core seminar courses, numbered between HIAA 1020 and HIAA 1930:

- HIAA 1020: Topics in East Asian Art
- HIAA 1090: Writing About the Arts
- HIAA 1101A: Illustrating Knowledge
- HIAA 1101B: Seeing and Writing on Contemporary Arts
- HIAA 1120B: History of Urbanism, 1300-1700
- HIAA 1120C: History of Western European Urbanism, 1200-1600
- HIAA 1105: Otherworldly and Other Worlds: Representing the Unseen in Early Modern Europe
- HIAA 1150C: El Greco and Velazquez
- HIAA 1150D: El Greco and the Golden Age of Spanish Painting
- HIAA 1170B: Twentieth-Century American Painting
- HIAA 1181: Prefabrication and Architecture
- HIAA 1182: Spaces and Institutions of Modernity
- HIAA 1200A: Ancient Art in the RISD Collection
- HIAA 1200D: Pompeii
- HIAA 1201: Brushwork: Chinese Painting in Time
- HIAA 1300: Topics in Classical Art and Architecture
- HIAA 1301: The Palaces of Ancient Rome
- HIAA 1302: Women and Families in the Ancient Mediterranean
- HIAA 1303: Pompeii: Art, Architecture, and Archaeology in the Lost City
- HIAA 1304: Spectacle! Games, Gladiators, Performance, and Ceremony in the Roman World
- HIAA 1310: Topics in Hellenistic Art
- HIAA 1400F: Research Seminar Gothic Art
- HIAA 1410A: Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
- HIAA 1410B: Painting in Mughal India 1550-1650
- HIAA 1430A: The Visual Culture of Medieval Women
- HIAA 1440D: The Gothic Cathedral
- HIAA 1440F: Architectural Reuse: The Appropriation of the Past
- HIAA 1440B: Architecture of Solitude: The Medieval Monastery
- HIAA 1460: Topics in Medieval Archaeology
- HIAA 1550B: Topics in the Early History of Printmaking: Festival and Carnival
- HIAA 1550A: Prints and Everyday Life in Early Modern Europe
- HIAA 1560A: Italy and the Mediterranean
- HIAA 1560B: Mannerism
- HIAA 1560C: Renaissance Venice and the Veneto
- HIAA 1560D: Siena from Simone Martini to Beccafumi
- HIAA 1560E: The Arts of Renaissance Courts
- HIAA 1560F: Topics in Italian Visual Culture: The Visible City, 1400-1800
- HIAA 1600A: Bosch and Bruegel: Art Turns the World Upside Down
- HIAA 1600B: Caravaggio
- HIAA 1600C: Italian Baroque Painting and Sculpture
- HIAA 1600D: The Art of Peter Paul Rubens
- HIAA 1600E: The World Turned Upside Down
- HIAA 1600F: Antwerp: Art and Urban History
- HIAA 1600G: Art + Religion in Early Modern Europe
HIAA 1600H Comedy in Netherlandish Art From Hieronymus Bosch to Jan Steen
HIAA 1600I Collections and Visual Knowledge in Early Modern Europe: 1400-1800
HIAA 1600J Rembrandt
HIAA 1650A About Face: English Portraiture: 1600-1800
HIAA 1650B Visualizing Revolutionary Bodies 1785-1815
HIAA 1650C Visual Culture and the Production of Identity in the Atlantic World, 1700-1815
HIAA 1650D Souvenirs: Remembering the Pleasures and Perils of the Grand Tour
HIAA 1711 Black and White: Imagining Africans and African Americans in Visual Culture
HIAA 1770 Architecture and Visual Culture of Empire
HIAA 1811 Possible Futures: Art and the Social Network before the Internet (1950-1979)
HIAA 1850A Frank Lloyd Wright
HIAA 1850D Film Architecture
HIAA 1850E Architecture, Light and Urban Screens
HIAA 1850G Contemporary American Urbanism: City Design and Planning, 1945-2000
HIAA 1850H Berlin: Architecture, Politics and Memory
HIAA 1870 Cannibalism, Inversion, and Hybridity: Creative Disobedience in the Americas
HIAA 1890E SoCal: Art in Los Angeles, 1945-Present
HIAA 1890G Contemporary Art of Africa and the Diaspora
HIAA 1910A Providence Architecture
HIAA 1910B Project Seminar: The Architecture of Bridges
HIAA 1910D Water and Architecture
HIAA 1910E Project Seminar for Architectural Studies Concentrators
HIAA 1910F City Senses: Urbanism Beyond Visual Spectacle
HIAA 1920 Individual Study Project in the History of Art and Architecture
HIAA 1930 The History and Methods of Art Historical Interpretation
HIAA 1990 Honors Thesis

Four elective courses. These can include courses taught in the department, cross-listed courses from other departments, or courses in other departments approved by the concentration advisor. HIAA 0010 may count as one of these courses but cannot count as one of the four core lecture courses. Students are encouraged to take a studio class as part of this requirement.

Total Credits 10
1 The six core lecture and seminar courses must be taken in the History of Art and Architecture department and cannot be replaced with independent study, honors thesis or classes taken in other departments, universities, or high schools.
2 A maximum of two (2) credits may be allowed for courses taken at other universities (transfer credits or from study abroad) or courses that also count toward a second concentration. No concentration credit will be granted for AP/A-level scores, or for language classes.

Architectural Studies Track

The Optional Architectural Studies track within the History of Art and Architecture concentration 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.

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.

Four lecture courses. These courses will be numbered between HIAA 0020 and HIAA 0940 and will be marked with an “A” in the course description. The courses must be distributed over three of seven areas in architectural history: Ancient; Medieval; Islamic; East Asian; Latin American; Early Modern (ca. 1400-1800); Modern/Contemporary.

HIAA 0040 Introduction to Medieval Art and Architecture
HIAA 0042 Islamic Art and Architecture
HIAA 0031 Pre-Islamic Empires of Iran
HIAA 0041 The Architectures of Islam
HIAA 0061 Baroque
HIAA 0062 The Age of Rubens and Rembrandt: Visual Culture of the Netherlands in the Seventeenth Century
HIAA 0070 Introduction to American Art: The 19th Century
HIAA 0074 Nineteenth-Century Architecture
HIAA 0075 Introduction to the History of Art: Modern Photography
HIAA 0081 Architecture of the House Through Space and Time
HIAA 0089 Contemporary Photography
HIAA 0321 Toward a Global Late Antiquity:200-800 CE
HIAA 0340 Roman Art and Architecture: From Julius Caesar to Hadrian
HIAA 0400 Early Christian, Jewish, and Byzantine Art and Architecture
HIAA 0440 Gothic Art and Architecture
HIAA 0460 Muslims, Jews and Christians in Medieval Iberia
HIAA 0550 Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany
HIAA 0560 Popes and Pilgrims in Renaissance Rome
HIAA 0570 The Renaissance Embodied
HIAA 0580 Word, Image and Power in Renaissance Italy
HIAA 0600 From Van Eyck to Bruegel
HIAA 0630 Cultural History of the Netherlands in a Golden Age and a Global Age
HIAA 0710 The Other History of Modern Architecture
HIAA 0770 Architecture and Urbanism of the African Diaspora
HIAA 0771 African American and Caribbean Architectures: Domestic Space
HIAA 0801 Art After ’68
HIAA 0810 20th Century Sculpture
HIAA 0830 Revolutionary Forms: 100 Years of Art and Politics in Latin America
HIAA 0840 History of Rhode Island Architecture
HIAA 0850 Modern Architecture
HIAA 0860 Contemporary Architecture
HIAA 0861 City and Cinema
One seminar or independent study in architectural history, numbered between HIAA 1100 and HIAA 1890, and marked with an "A" in the course description.

HIAA 1101A Illustrating Knowledge
HIAA 1101B Seeing and Writing on Contemporary Arts
HIAA 1120B History of Urbanism, 1300-1700
HIAA 1120C History of Western European Urbanism 1200-1600
HIAA 1150C El Greco and Velazquez
HIAA 1150D El Greco and the Golden Age of Spanish Painting
HIAA 1170B Twentieth-Century American Painting
HIAA 1181 Prefabrication and Architecture
HIAA 1200A Ancient Art in the RISD Collection
HIAA 1200D Pompeii
HIAA 1201 Brushwork: Chinese Painting in Time
HIAA 1300 Topics in Classical Art and Architecture
HIAA 1301 The Palaces of Ancient Rome
HIAA 1302 Women and Families in the Ancient Mediterranean
HIAA 1303 Pompeii: Art, Architecture, and Archaeology in the Lost City
HIAA 1310 Topics in Hellenistic Art
HIAA 1360X The Aesthetics of Color: History, Theory, Critique (GNSS 1960X)
HIAA 1400F Research Seminar Gothic Art
HIAA 1410A Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
HIAA 1430A The Visual Culture of Medieval Women
HIAA 1440B Architecture of Solitude: The Medieval Monastery
HIAA 1440D The Gothic Cathedral
HIAA 1460 Topics in Medieval Archaeology
HIAA 1550A Prints and Everyday Life in Early Modern Europe
HIAA 1550B Topics in the Early History of Printmaking: Festival and Carnival
HIAA 1560A Italy and the Mediterranean
HIAA 1560B Mannerism
HIAA 1560C Renaissance Venice and the Veneto
HIAA 1560D Siena from Simone Martini to Beccafumi
HIAA 1560E The Arts of Renaissance Courts
HIAA 1560F Topics in Italian Visual Culture: The Visible City, 1400-1800
HIAA 1600C Italian Baroque Painting and Sculpture
HIAA 1600D The Art of Peter Paul Rubens
HIAA 1600A Bosch and Bruegel: Art Turns the World Upside Down
HIAA 1600B Caravaggio
HIAA 1600E The World Turned Upside Down
HIAA 1600F Antwerp: Art and Urban History
HIAA 1600G Art + Religion in Early Modern Europe
HIAA 1600H Comedy in Netherlandish Art From Hieronymus Bosch to Jan Steen
HIAA 1600I Collections and Visual Knowledge in Early Modern Europe: 1400-1800
HIAA 1770 Architecture and Visual Culture of Empire
HIAA 1850A Frank Lloyd Wright
HIAA 1850D Film Architecture
HIAA 1850E Architecture, Light and Urban Screens
HIAA 1850G Contemporary American Urbanism: City Design and Planning, 1945-2000
HIAA 1850H Berlin: Architecture, Politics and Memory
HIAA 1910A Providence Architecture

A project seminar from the HIAA 1910 series. This must be taken in the junior or senior year.

One studio art course in design

Three elective courses. These can include other courses taught in the History of Art and Architecture department and cross-listed courses in other departments that are pertinent to architectural studies. They may also include a select number of non-cross-listed courses approved by the concentration advisor.

Total Credits 10

1 The two seminars cannot be replaced with independent study, honors thesis, or classes taken in other departments or universities.
2 In years where no project seminar is offered, any seminar that qualifies for architectural studies can become the starting point for a senior project.
3 The studio course may be taken at Brown, RISD, Harvard Career Discovery and similar six week + summer programs.
4 The non-cross-listed courses include but are not limited to MATH 0090, MATH 0100, PHYS 0030, PHYS 0040, ENGN 0030, Urban Studies and Engineering courses, and scenic design and technical production courses offered by the department of Theatre Arts and Performance Studies.
5 A maximum of two credits may be awarded for courses taken at other universities or for courses that count toward a second concentration. No concentration credit is awarded for high school AP/A-level courses or for language courses.

The below pertains to ALL concentrators in the department:

Language Requirement
You will be expected to demonstrate reading proficiency in a language other than English. By learning the language of another culture you will gain a deeper understanding of its art, literature and history. Aside from this, knowledge of a foreign language will equip you with a skill essential for pursuing art historical studies in a professional environment or graduate school. The requirement can be fulfilled by either passing an 0500 level language course at Brown or by demonstrating an 0500 level reading ability in a placement test administered by Brown University language department (Students who declared their concentration before August 2013 are expected to demonstrate proficiency at the 0400 level).

Self Assesment
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.

Capstone Project
At the beginning of your senior year you will be actively encouraged to propose and undertake a Capstone Project. The Capstone Project is intended to challenge you with an opportunity to synthesize at a high level of achievement the knowledge and understanding you have gained by concentrating in the History of Art and Architecture or Architectural Studies. To propose and work on a Capstone Project you will need the support of a faculty sponsor. Capstone Projects embrace many possibilities. You can perfect a seminar paper in which you have
developed a strong interest. You can participate in a graduate seminar to which the instructor has admitted you. You can serve as an undergraduate TA. You can work as an intern in museums and auction houses such as Christie’s. You might work on an archaeological excavation. You can participate in the Honors Program. Beyond these opportunities, the Department is open to other approaches. You should work with a faculty sponsor and with the Undergraduate Concentration Advisor to decide what will work best for you.

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 HIAA 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) will be due to the advisor and second reader by 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—being considered one of your four classes. Students who are expecting to graduate in December will work best for you.

Honors Application Process
During the second semester of the junior year all concentrators will be invited to apply for admission to the Honor Program in History of Art and Architecture and Architectural Studies. Admission to the Honors Program
1. To be admitted to the Honors Program you should have produced consistently excellent work and maintained a high level of achievement in all your concentration course. You should have earned an A grade in most of your concentration courses.
2. The key project for honors is to write an honors thesis. When you apply for admission you will be asked to submit a proposal of no more than two double-spaced pages that states the topic (subject and argument) of the research to be undertaken as clearly as possible, and add 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 resume 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 semester.
3. For admission to the Honor Program you must include with your proposal a letter of support from a faculty member of the History of Art and Architecture Department who has agreed to serve as your thesis advisor. You should discuss the thesis topic with your advisor before you submit your proposal. During the process of researching and writing you will meet regularly with your advisor to discuss your work.

Writing the Honors Thesis
1. If you are accepted into the Honors Program you will register for HIAA 1990 during the two semesters when you are working on a thesis. This is a seminar led by the Department Undergraduate Concentration Advisor in which all honors students meet once a month to present the current progress of their work. It is a valuable opportunity to share ideas and receive feedback from your fellow honors students and faculty alike. The honors seminar also offers a practical framework around which you can organize the progress of your work.
2. You will meet regularly with your thesis advisor and with a second reader to develop your ideas and writing.
3. 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 by April 1 of the Spring semester or by November 1 of the Fall semester if you plan on graduating in December. 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.

Independent Concentration
The Independent Concentration 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 does not offer. Such fields may include emerging topics, such as "sustainable technology," or broader interdisciplinary areas, such as "Deaf and Disability Studies." The IC proposal process consists of: 1) Meeting with the Curricular Resource Center’s IC Peer Coordinators (https://www.brown.edu/academics/college/advising/curricular-resource-center/meet-crcers); 2) Completing a draft IC Application (https://www.brown.edu/academics/college/advising/curricular-resource-center/independent-concentrations/ic-proposal-submission/ic-proposal) and soliciting feedback from the Peer Coordinators; 3) Identifying an approved Faculty Sponsor (an advisor) and obtaining a letter of support (http://brown.edu/academics/college/advising/curricular-resource-center/sites/brown.edu.academics.college.advising.curricular-resource-center/files/uploads/IC_FacultyAdvisorInfoSheet.docx); and 4) Submitting the application and letter of support by the deadline (Optional: Students interested in pursuing honors should read the IC Honors Thesis Guidelines (https://www.brown.edu/academics/college/advising/curricular-resource-center/independent-concentrations/independent-concentrations/resources-current-icors)).

Deadlines: The IC subcommittee of the College Curriculum Council reviews proposals six times per year; applicants must have satisfied two requirements: (1) submission of their first IC proposal by the end of their 5th semester; (2) meeting with at least one of the IC Peer Coordinators before submitting their proposal. Independent concentration proposals are reviewed and approved by the College Curriculum Council.

International Relations
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 student’s selected region of the world. All concentrators are required to undertake a capstone project using research in a second language. Prospective concentrators should visit the IR site (http://watson.brown.edu/ir/requirements/filing) for next steps.

Requirements
The IR concentration requires 14 courses and the equivalent of 3 years study of a second language. Regardless of track, all IR concentrators must take all five core courses, research methods, regional focus, and capstone courses.
Security and Society track

Core Courses
Students must take all 5 core courses, preferably during freshman or sophomore year. AP credit does not count toward the concentration.

- ANTH 0110 Anthropology and Global Social Problems: Environment, Development, and Governance
- ECON 0110 Principles of Economics
- HIST 0244 Understanding the Middle East: 1800s to the Present
- HIST 1121 The Modern Chinese Nation: An Idea and Its Limits
- POLS 0400 Introduction to International Politics

Track Requirements (five courses distributed between the sub-themes):

Governance and Diplomacy (two or three courses):
- INTL 1803M
- INTL 1803L
- INTL 1803K
- INTL 1802W
- HMAN 1970K

Society (two or three courses):
- ANTH 1224
- ANTH 1225
- AMST 1904V
- POLS 1821L
- POLS 1821M

Research Methods
Prior to 7th semester. Quantitative or qualitative course from the following approved list.

- AMST 1904V Decolonizing Minds: A People’s History of the World
- ANTH 1910G Senior Seminar: Politics and Symbols
- FREN 1900H La France en guerre
- HIST 1969B Israel-Palestine: Lands and Peoples II
- HIST 1974J Decolonizing Minds: A People’s History of the World
- HMAN 1970K Law and Religion
- INTL 1802Q Iran and the Islamic Revolution
- INTL 1802V Diplomacy, Economics & Influence
- INTL 1802W International Journalism
- INTL 1802Y India in the World
- INTL 1803G Global Women’s Issues: Investing in women as strategy for sustainable growth and global development
- INTL 1803K Media Wars: The Middle East
- INTL 1803L Humanitarianism in Uniform
- INTL 1803M Reassessing Contentious Politics, and Social Movements
- INTL 1803N The Politics of Food Security
- POLS 1821L International Relations of Russia, Europe and Asia
- INTL 1910 Senior Honors Seminar
- POLS 1820H Contraband Capitalism: States and Illegal Global Markets
- POLS 1822I Geopolitics of Oil and Energy
- POLS 1822U War and Human Rights
- POLS 1822X Technology and International Politics
- POLS 1823I Urban Politics and Policy
- POLS 1823Q Democratic Theory and Globalization
- POLS 1824B Post Conflict Politics

Total Credits
14
## Political Economy and Society Track

### Core Courses

Students must take all 5 core courses, preferably during freshman or sophomore year. AP credit does not count toward the concentration.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems: Environment, Development, and Governance</td>
</tr>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>HIST 0244</td>
<td>Understanding the Middle East: 1800s to the Present</td>
</tr>
<tr>
<td>HIST 1121</td>
<td>The Modern Chinese Nation: An Idea and Its Limits</td>
</tr>
<tr>
<td>POLS 0400</td>
<td>Introduction to International Politics</td>
</tr>
</tbody>
</table>

### Track Requirements (five courses from distributed between the sub-themes):

- **Economics (two or three courses):** All students MUST take Micro and Macro
  - ECON 1110 Intermediate Microeconomics
  - ECON 1210 Intermediate Macroeconomics

- Plus an International Economics course:
  - ECON 0510 Development and the International Economy
  - ECON 1500 Current Global Macroeconomic Challenges
  - ECON 1510 Economic Development
  - ECON 1540 International Trade
  - ECON 1550 International Finance
  - ECON 1590 The Economy of China since 1949
  - ECON 1760 Financial Institutions
  - ECON 1765 Finance, Regulation, and the Economy: Research

- **Political Economy (two or three courses):**
  - ANTH 1320 Anthropology and International Development: Ethnographic Perspectives on Poverty and Progress
  - ENVS 1350 Environmental Economics and Policy
  - INTL 1802V Diplomacy, Economics & Influence
  - INTL 1803G Global Women’s Issues: Investing in women as strategy for sustainable growth and global development
  - POLS 1020 Politics of the Illicit Global Economy
  - POLS 1150 Prosperity: The Ethics and Economics of Wealth Creation
  - POLS 1280 Politics, Economy and Society in India
  - POLS 1420 Money and Power in the International Political Economy
  - POLS 1490 Building a Better World: Film and Social Change
  - POLS 1730 Politics of Globalization
  - POLS 1820H Contraband Capitalism: States and Illegal Global Markets
  - POLS 1822I Geopolitics of Oil and Energy
  - POLS 1822M Capitalism: For and Against
  - POLS 1824J Culture, Identity and Development
  - SOC 0150 Economic Development and Social Change

### Regional Focus

Both courses must be on the same area. Students are required to link these to language study.

### Language

Three years university study or equivalent. Must correspond to region.

### Capstone Course, from the following options:

- Must be taken senior year. Must incorporate language skills. Students may choose from the following:
  - AMST 1904V Decolonizing Minds: A People’s History of the World
  - ANTH 1910G Senior Seminar: Politics and Symbols
  - FREN 1900H La France en guerre
  - HIST 1969B Israel-Palestine: Lands and Peoples II
  - HIST 1974J Decolonizing Minds: A People’s History of the World
  - HMAN 1970K Law and Religion
  - INTL 1802Q Iran and the Islamic Revolution
  - INTL 1802V Diplomacy, Economics & Influence
  - INTL 1802W International Journalism
  - INTL 1802Y India in the World
  - INTL 1803G Global Women’s Issues: Investing in women as strategy for sustainable growth and global development
  - INTL 1803K Media Wars: The Middle East
  - INTL 1803L Humanitarianism in Uniform
  - INTL 1803M Reassessing Contentious Politics, and Social Movements
  - INTL 1803N The Politics of Food Security
  - INTL 1910 Senior Honors Seminar
  - POLS 1820H Contraband Capitalism: States and Illegal Global Markets
  - POLS 1821L International Relations of Russia, Europe and Asia
  - POLS 1822I Geopolitics of Oil and Energy
  - POLS 1822U War and Human Rights
  - POLS 1822X Technology and International Politics
  - POLS 1823E Global Justice
  - POLS 1823Q Democratic Theory and Globalization
  - POLS 1824B Post Conflict Politics
  - POLS 1824J Culture, Identity and Development

Total Credits: 14

The program has a director, an associate director/concentration advisor, and two faculty advisors 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...
ITALIAN STUDIES COURSES

ITAL 0550  Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany (HIAA 0550)
ITAL 0560  Constructing the Eternal City: Popes and Pilgrims in Renaissance Rome (HIAA 0560)
ITAL 0600  Advanced Italian II
ITAL 0750  Truth on Trial: Justice in Italy
ITAL 0751  When Leaders Lie: Machiavelli in International Context
ITAL 0950  Introduction to Italian Cinema: Italian Film and History
ITAL 0951  The Grand Tour, or a Room with a View: Italy and the Imagination of Others
ITAL 0981  When Leaders Lie: Machiavelli in International Context
ITAL 0985  Visions of War: Representing Italian Modern Conflicts
ITAL 1000A  Luigi Pirandello: Masks and Society
ITAL 1000B  Reading Recent Italian Fiction
ITAL 1000C  Nord - Sud e Identita Italiana
ITAL 1000D  Italian National Identity: Criticisms and Crises
ITAL 1000E  Masterpieces of Italian Cinema - Capolavori del cinema italiano
ITAL 1000F  20th Century Italian Poetry
ITAL 1000G  Italian Identity
ITAL 1010  Dante in English Translation: Dante's World and the Invention of Modernity
ITAL 1020  Boccaccio's Decameron
ITAL 1029  World Cinema in a Global Context
ITAL 1030A  Fellini
ITAL 1310  Literature of the Middle Ages
ITAL 1320  Great Authors and Works of Italian Renaissance
ITAL 1340  The Panorama and 19th-Century Visual Culture
ITAL 1350A  Italian Mysteries and the New Italian Epic
ITAL 1350B  Non Fiction
ITAL 1360  Renaissance Italy
ITAL 1380  Italy: From Renaissance to Enlightenment
ITAL 1390  Modern Italy
ITAL 1400A  "Italian (Mediterranean) Orientalisms" Major Italian Writers and Filmmakers
ITAL 1400B  Fascism and Antifascism: Culture and Literature between the Two World Wars
ITAL 1400C  Literature and Adolescence
ITAL 1400D  Photography and Literature: Italian Examples of an Uncanny Relationship
ITAL 1400F  Twentieth Century Italian Culture
ITAL 1400H  Early Modern Italy
ITAL 1400I  Rituals, Myths and Symbols
ITAL 1400J  The Many Faces of Casanova
ITAL 1400K  Italy as Other
ITAL 1400L  History of Masculinity and Femininity from the Unification to 1968
ITAL 1400M  Giorgio Agamben and Radical Italian Theory
ITAL 1400P  The Southern Question and the Colonial Mediterranean
ITAL 1400Q  From Neorealism to Reality TV
ITAL 1420  Sex and the Cities: Venice, Florence, and Rome, 1450-1800
ITAL 1430  Truth on Trial: Justice in Italy, 1400-1800 (HIST 1262M)
ITAL 1550  Italian Representations of the Holocaust
ITAL 1550B  Topics in the Early History of Printmaking: Festival and Carnival (HIAA 1550B)
ITAL 1560A  Italy and the Mediterranean (HIAA 1560A)
ITAL 1580  Word, Image and Power in Renaissance Italy
ITAL 1590  Word, Media, Power in Modern Italy
ITAL 1610  The Divina Commedia: Inferno and Purgatorio
ITAL 1620  The Divina Commedia: Dante's Paradiso: Justifying a Cosmos
ITAL 1920  Independent Study Project (Undergraduate)
ITAL 1990  Senior Conference
ITAL 2100  Introduction to Italian Studies

COURSES IN OTHER DEPARTMENTS

HIAA 0340  Roman Art and Architecture: From Julius Caesar to Hadrian
HIAA 0550  Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany
HIAA 0560  Popes and Pilgrims in Renaissance Rome
HIAA 1200D  Pompeii
HIAA 1301  The Palaces of Ancient Rome
HIAA 1302  Women and Families in the Ancient Mediterranean
HIAA 1303  Pompeii: Art, Architecture, and Archaeology in the Lost City
HIAA 1550B  Topics in the Early History of Printmaking: Festival and Carnival
HIAA 1560A  Italy and the Mediterranean
HIAA 1560C  Renaissance Venice and the Veneto
HIAA 1560D  Siena from Simone Martini to Beccafumi
HIAA 1560F  Topics in Italian Visual Culture: The Visible City, 1400-1800
HIAA 1600C  Italian Baroque Painting and Sculpture
ARCH 1155  Cities, Colonies and Global Networks in the Western Mediterranean
MUSC 0071  Opera

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 1900 (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 arrived at 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) as 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**

Jews have lived and flourished over thousands of years in a variety of social contexts, stretching from the Land of Israel and the eastern Mediterranean to Asia, Africa, Europe, and the Americas. Concentrators will have the opportunity to study Jews in these contexts, getting to know their social structures, and what they have created. The subjects of study cover an astonishing range, including history and society, Jewish law and philosophy, and Jewish literature and ritual. Students will learn to unlock this wealth in both the ancient and the modern worlds through a number of academic disciplines - History, Religious Studies, and Literature. These also provide tools for studying and analyzing human societies and cultures in general, for which Jewish experiences provide an important perspective.

**PROGRAM IN JUDAIC STUDIES**

**Required Coursework**

The Program in Judaic Studies offers two paths (detailed below). Please note that the following apply to each concentrator:

1. All students are required to take a total of ten courses.
2. All students must take one full year of Hebrew (two of the ten required courses). Generally, this requirement will consist of two courses in Elementary Hebrew (HEBR 0100/HEBR 0200) or the equivalent as determined by a proficiency examination. Fulfillment of the Hebrew requirement through examination does not reduce the requirement to take ten courses for the concentration.

3. Upon declaring a concentration in Judaic Studies, each student must define his or her primary disciplinary track (History, Religious Studies, or Language/Literature). Concentrators will then be assigned a faculty mentor in that discipline (within the Judaic Studies faculty) to help students select courses and construct a coherent concentration plan.

**Program in History or Religious Studies:**

For this track, students are expected to complete a minimum of four courses in their area of disciplinary focus (History or Religious Studies), at least one of which must and no more than two of which may be outside the Program in Judaic Studies in the department of disciplinary focus (preferably methods courses, such as in the History department or RELS 1000). Students in this track, in consultation with the concentration adviser and faculty mentor, may apply up to two additional Hebrew language courses (HEBR 0300, HEBR 0400, or HEBR 0500) to the additional four required courses for the concentration.

**Program in Language/Literature:**

For this track, students are expected to complete five courses in Hebrew language (HEBR 0100 / HEBR 0200; HEBR 0300/HEBR 0400; HEBR 0500). In addition, students will take Issues in Israel in Hebrew (HEBR 0600) and one further course in Judaic Studies (within the disciplinary focus). Two additional courses in the disciplinary focus, at least one of which must be outside the Program in Judaic Studies in a department of shared disciplinary focus (e.g. English or Comparative Literature), are also required. Fulfillment of the Hebrew requirement through proficiency examination does not reduce the requirement to take ten courses for the concentration.

4. Of the courses required in the Program in Judaic Studies, at least one should focus on the ancient period and one should focus on the modern period.

5. Each student, in discussion with his/her mentor, is required to designate an advanced course (1000 level) in his/her senior year either within the Judaic Studies program or in the corresponding disciplinary department as the capstone for his/her concentration. Within the frame of this capstone course, the concentrator will write a final paper on a topic in Judaic Studies that displays in an appropriate way the theoretical and interpretive issues of the concentration focus. If a student opts to fulfill this requirement in a course outside the Program in Judaic Studies, the student must get permission in advance both from his/her mentor and from the professor of the course in question since the student's final project will address a Judaic Studies topic or theme. Students who study at other institutions, either in the United States or abroad, may apply a maximum of four courses (two topical and two language courses) to the concentration.

6. Students may also define his or her primary disciplinary track (History, Religious Studies, or Language/Literature). Concentrators will then be assigned a faculty mentor in that discipline (within the Judaic Studies faculty) to help students select courses and construct a coherent concentration plan.

7. Double concentrators may count up to two courses that they have used to complete their concentration requirements in another department towards their concentration in Judaic Studies.

**Honors Program**

Any student who wishes to engage more deeply in research related to Judaic Studies in any of its disciplines or branches is invited to consider writing an Honors Thesis.

**The Honors Thesis**

The goal of the thesis is to add to the existing scholarship in the field of Judaic Studies. It should be based on original research, involving the close reading of primary sources. The honors thesis is expected to present an argument based on the student's own analysis and will engage an ongoing debate or discussion in the field, demonstrating an awareness of the major research done until now and clearly identifying its own contribution, however limited. Since it is the equivalent of two semester-long courses, it should be a substantial piece of work (typically between 35,000-55,000 words) containing a sustained and consistently supported argument. To be successful, the student needs to adopt both a critical research methodology and a logical research strategy, both of which should be discussed in the thesis itself. In addition to being assessed in all these aspects, the thesis will also be graded on its organization (the way in which it is structured into separate and clearly defined chapters.
to support the main argument) as well as the quality and precision of its writing.

Work that simply describes and summarizes its sources along with previous research is not acceptable. The goal here is original research and analysis.

**Entering the Program**

In order to be considered a candidate for Honors, students will be expected to have maintained 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 (numbered JUDS 197S/JUDS 1976) during the senior year.

A student contemplating a thesis should approach the faculty member with whom he or she hopes to work during the sixth semester. Once he or she has agreed to be the advisor (or helped find another member of the program better suited to the project), the student begins a process of consultation in order to determine a topic for the thesis, its sources, and proposed methodology. The contours of the project should also be laid out so that the student can commence productive research at the very beginning of the seventh semester. After this, a second reader for the thesis should be chosen by the advisor in consultation with the student. This may be a faculty member of the Judaic Studies program, one of the affiliate faculty, or, should the topic require it, a member of a different department. By the last week of the semester, the student should submit a thesis information form detailing the thesis topic with a short description of the proposed project, countersigned by advisor and second reader.

**Thesis Proposal**

During the first three weeks of the seventh semester, the student should work with the faculty advisor to write a thesis proposal. This should be a brief document (1,500-2,000 words) explaining the topic chosen for the thesis and its significance to the field of Judaic Studies, with reference to previous research on the subject. The proposal should detail the questions to be asked and the kind of argument that will be made as well as explaining the primary sources and research methodology that will be employed. The proposed research strategy (i.e. the stages by which research and writing will be done) and timetable should be appended together with a brief, one page bibliography of primary sources and major research to be consulted.

Once the advisor is satisfied with the proposal, the student will be considered fully accepted into the Honors program and can enroll in the required independent study course by the last day to add a course in the fourth week of the term.

**Research and Writing**

It is the responsibility of the student to carry out the research program outlined in the proposal, as well as to write the thesis in an organized and timely fashion. During the process of research and writing, the advisor will continue to work closely with the student, providing guidance on research methods and suggesting further secondary reading. A regular meeting schedule will be set up to help the student meet the short- and long-term deadlines he or she has set. The advisor will also evaluate the progress of the research, providing any necessary direction and detailed feedback on written drafts.

The second reader will also be available to provide a measure of input and guidance during the process of research and writing. This may be particularly important in those areas where the primary advisor has limited expertise. The second reader may also be willing to help with giving feedback on various sections of the thesis drafts. All these roles should be determined by a process of consultation involving the advisor, the student, and the second reader him/herself.

The final thesis should have a complete scientific apparatus - citations and a full bibliography - in a form determined by the advisor. It should be submitted no later than April 15 for May graduates and November 15 for December completers.

**Assessment**

The thesis will be assessed independently by the advisor and the second reader in written reports. In order to receive Honors, it should be deemed excellent according to the following standards:

- Is the scope of the work appropriate for an Honors thesis?
- To what extent does it qualify as original research?
- To what degree does it sustain an analytic argument throughout?
- To what extent is it rooted in an engagement with previous research?
- How well does it reflect critically on its method and process?
- To what extent is the organization adequate to the argument presented?
- How well is the thesis rooted in the common conventions of the field?
- To what degree is the writing clear, cogent, and free of errors of grammar, tone, and style?

The two reports will be circulated to all faculty members in the program, who will review them before making the final determination at the next faculty meeting whether the thesis merits Honors. The meeting must be held, the decision reached, and the candidate informed before the Registrar’s deadline for that semester.

**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: 401.863.3912 or Judaic@brown.edu]

### Latin American and Caribbean Studies

The concentration in Latin American and Caribbean Studies (LACA) leads to a strong, interdisciplinary understanding of culture, history, and contemporary issues in Latin America, the Caribbean, and the Latino/a diaspora.

Requirements are intentionally broad and flexible to accommodate the focused interests of students in understanding the diverse reality of this region. Concentration requirements include four themes: language, area studies, research, and internship / service work. A wide selection of courses from departments across the University expose students to the methods and materials of different disciplines and provide a background in the contemporary and historical contours of Latin American, Caribbean, and Latino/a societies. For more information, contact the Director of Undergraduate Studies, Jeremy Mumford (jeremy_mumford@brown.edu? subject=LACA concentration). Beginning summer 2018, the DUS will be Professor Erica Durante (http://mailto://ERICA bât SAMUEL@brown.edu).

**Concentration Requirements**

1) Ten courses on Latin American, Caribbean, and/or Latinx subjects. These may be explicitly designated as LACA classes, but do not need to be. Up to one of these courses can be a language learning class.

Relevant courses from study abroad may count toward this total. For double concentrators, up to two classes can count toward the course requirements of both LACA and another concentration. At least two different academic disciplines should be represented in the ten courses. A diverse list of courses offered on the region is posted on the department’s website each semester (see examples below); please contact the concentration advisor to ask whether specific courses not listed on the website may be used to meet requirements.

Sample courses which may be used to fulfill concentration requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LACA 0100</td>
<td>Introduction to Latin America</td>
</tr>
<tr>
<td>LACA 1503I</td>
<td>Fiction and Methods in Social Research: Debates on Inequality, Poverty, and Violence</td>
</tr>
<tr>
<td>LACA 1503J</td>
<td>Latin American Urban Interventions</td>
</tr>
<tr>
<td>LACA 1504D</td>
<td>The Art of Revolution in Latin America</td>
</tr>
<tr>
<td>LACA 1900</td>
<td>Honors and Capstone Project on Latin American and Caribbean Topics</td>
</tr>
<tr>
<td>AFRI 2502</td>
<td>Race and Nation in the Spanish Caribbean</td>
</tr>
<tr>
<td>ANTH 1030</td>
<td>Pre-Columbian Art and Architecture: A World That Matters</td>
</tr>
</tbody>
</table>
2. Competence on a Latin American and/or Caribbean language. Competence in Spanish (HISP 0100 - HISP 0200 or HISP 0110), Portuguese (POBS 0100 - POBS 0200, or POBS 0110), French (FREN 0100 - FREN 0200), Haitian Kreyol, Kaqchikel Maya, etc. may be demonstrated through a departmental test, AP credit, language courses at Brown or elsewhere, study abroad, etc.; please contact the concentration advisor to confirm. (If the student’s primary area of study is the Anglophone Caribbean, a field language is not necessary.)

3. A substantial research project. This may be a LACA thesis; a creative project such as fiction, visual art, or performance; or a substantial research paper for a seminar that focuses on a Latin American, Caribbean, and/or Latino/a theme. The project may be completed for honors if the student is eligible (see Honors, below).

Students undertaking a supervised research project may enroll in a year-long independent study (LACA 1990, LACA 1991) with their thesis/project adviser. Options for the research project include:

a) Senior Thesis
- The senior thesis is a 40-80 page paper based on original research.
- The thesis is supervised by a primary advisor and a secondary reader. Both must be Brown professors, chosen by the student and approved by the concentration advisor. The primary thesis advisor takes an active role in the paper, regularly meeting with the student throughout the year. The secondary reader reviews and provides feedback on one draft of the paper and the final product.

The thesis may qualify a student to graduate with honors, if the student meets the additional requirements and follows the timeline listed here, and receives the unanimous recommendation of their primary advisor and secondary reader, as well as approval from the concentration advisor.

b) Research Project
- The research project involves a presentation of a film, museum exhibition, concert, art show, or other appropriate project based on original research or creative scholarship, together with a paper that clearly identifies the academic relevance of the project.
- The research project is supervised by one faculty advisor, who is a Brown professor, chosen by the student and approved by the concentration advisor.

The research project may qualify a student to graduate with honors, if the student meets the additional requirements and follows the timeline listed here, and receives the unanimous recommendation of their primary advisor and secondary reader, as well as approval from the concentration advisor.

c) Research Paper
- The research paper is written in an advanced (1000-level) undergraduate seminar on Latin America and the Caribbean.
- The paper is typically 20-30 pages in length.
- The concentration advisor must approve the seminar and paper topic by the end of the seventh semester.
- Submitting a research paper cannot qualify the student for honors.

4. An internship or volunteer service. Located in the U.S. or overseas, for one semester or one summer. Work completed during study abroad may count toward this requirement. The service work will connect theory to practice, applying scholarly knowledge to social challenges. Students are encouraged to consult with the Swearer Center for Public Service for assistance finding a volunteer placement. Students should also meet with the DUS by the beginning of junior year to discuss their work plan for their service component. Upon completion of the internship or service work, students submit a brief summary report to the concentration advisor listing their experience to their scholarship, accompanied by a short letter from a supervisor confirming the completion of the work.

Honor Qualified undergraduates may work towards the A.B. in Latin American and Caribbean Studies with Honors.

Requirements to graduate with Honors:
1. Maintenance of at least a A- average in the ten courses counting for the Latin American and Caribbean Studies concentration.
2. Maintenance of at least a B+ average in all course work at Brown.
3. Completion of a senior honors thesis or project with a grade of A.

Graduating seniors with Honors in Latin American and Caribbean Studies are eligible for an award administered by the concentration for Outstanding Senior Thesis or Project.

Senior Honors Thesis or Project Timeline:
- By end of sixth semester: Students submit a one page proposal to the concentration advisor, including their thesis or project title and short description. The proposal must be signed by a primary advisor and a secondary reader. The project proposal must be signed by a primary advisor.
- By October 15: Students submit the first section of their thesis or project to their research advisor for review. They should agree with their advisor on the schedule for the remaining portions.
- By March 15: A draft of the entire thesis or project is due to the primary advisor and the secondary reader for review and feedback.
- By 5 pm on April 15: The final, complete senior honors thesis or project is due.
- Students submit one copy each to the primary advisor and the secondary reader.
- Students submit one paper copy and one electronic copy to the concentration advisor.
- Students will make a short presentation on their research at an end-of-year event at the Watson Institute.

Linguistics

Language is a uniquely human capacity that enables us to communicate a limitless set of messages on any topic. While human languages can differ greatly in certain respects, all are intricate, complex, rule-governed systems. Linguistics is the scientific study of these systems, their use in communicative and other social settings, and their cognitive and neural underpinnings. The linguistics concentration at Brown gives students a background in the "core" aspects of the language system: phonetics/phonology (the study of speech sounds and their patterning), syntax (the study of combinatorics of words, phrases, and sentences), and semantics/pragmatics (the study of the meanings of words, sentences, and conversation). Beyond this, students may focus more heavily in one or more of these areas and/or explore related questions such as how children and adults learn language (language acquisition), how utterances are produced and understood in real time (psycholinguistics), or how speaking and understanding are anchored in underlying neural systems (neurolinguistics). Other areas such as historical linguistics, sociolinguistics, philosophy of language, and linguistic anthropology can also be pursued in conjunction with offerings in other departments.

Requirements (10 courses)

<table>
<thead>
<tr>
<th>Prerequisite Course</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0300</td>
<td>Introduction to Linguistics (May be waived in special instances)</td>
</tr>
</tbody>
</table>
Applied towards the Linguistics Concentration requirements.

Other Courses Routinely Fulfilling Linguistics Concentration Requirements (in consultation with the Concentration Advisor):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1310</td>
<td>Introduction to Phonological Theory</td>
</tr>
<tr>
<td>CLPS 1330</td>
<td>Introduction to Syntax</td>
</tr>
<tr>
<td>CLPS 1341</td>
<td>Lexical Semantics</td>
</tr>
<tr>
<td>CLPS 1342</td>
<td>Formal Semantics</td>
</tr>
<tr>
<td>CLPS 1370</td>
<td>Introduction to Pragmatics</td>
</tr>
<tr>
<td>CLPS 0800</td>
<td>Language and the Mind</td>
</tr>
<tr>
<td>CLPS 1650</td>
<td>Child Language Acquisition</td>
</tr>
<tr>
<td>CLPS 1800</td>
<td>Language Processing</td>
</tr>
<tr>
<td>CLPS 1820</td>
<td>Language and the Brain</td>
</tr>
<tr>
<td>CLPS 1821</td>
<td>Neuroimaging and Language</td>
</tr>
<tr>
<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics</td>
</tr>
</tbody>
</table>

One course in Psycholinguistics to be drawn from the following:

- CLPS 0800 Language and the Mind
- CLPS 1650 Child Language Acquisition
- CLPS 1800 Language Processing
- CLPS 1820 Language and the Brain
- CLPS 1821 Neuroimaging and Language
- CLPS 1890 Laboratory in Psycholinguistics

5 additional appropriate electives forming a thematically related set to be determined in consultation with the Concentration Advisor. At least one of these must be drawn from the list of advanced courses listed below, and we strongly recommend that at least one course be an appropriate method and a topics course. No more than 2 of these courses may be drawn from below 1000 level courses. The electives can be drawn from any of the above courses, or any of the other linguistic/ language related courses in the CLPS department. Electives may also be drawn from courses in other in consultation with the Concentration Advisor; a list of courses which standardly count towards the Linguistics Concentration (provided they form part of the thematically related set) is appended below.

**Advanced Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1320</td>
<td>The Production, Perception, and Analysis of Speech</td>
</tr>
<tr>
<td>CLPS 1332</td>
<td>Issues in Syntactic Theory</td>
</tr>
<tr>
<td>CLPS 1342</td>
<td>Formal Semantics</td>
</tr>
<tr>
<td>CLPS 1360</td>
<td>Introduction to Corpus Linguistics</td>
</tr>
<tr>
<td>A course from the 1381 series (Topics in Phonetic &amp; Phonology)</td>
<td></td>
</tr>
</tbody>
</table>
| A course from the 1383 series (Topics in Syntax and Semantics)   | For example:
| CLPS 1383D   | Topics in Syntax and Semantics                                       |
| A course from the 1385 series (Topics in Language Acquisition)    | |
| A course from the 1387 series (Topics in Neurolinguistics)         | |
| A course from the 1389 series (Topics in Language Processing)      | |
| CLPS 1390    | Linguistic Field Methods                                             |
| CLPS 1821    | Neuroimaging and Language                                            |
| CLPS 1880 series (Topics in Psycholinguistics)                     | |
| CLPS 1890    | Laboratory in Psycholinguistics                                      |

**Other Courses Routinely Fulfilling Linguistics Concentration Requirements (in consultation with the Concentration Advisor):**

- ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology
- ANTH 1800 Sociolinguistics, Discourse and Dialogue
- CLPS 0050M Playing with Words: The Linguistic Principles Behind Word Games and Puzzles
- CLPS 1365 Introduction to Historical Linguistics
- CSCI 1460 Computational Linguistics
- EAST 1510 Chinese: A History of the Language
- EGYT 2310 History of the Ancient Egyptian Language
- SLAV 1300 Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe)
- PHIL 0540 Logic
- PHIL 1760 Philosophy of Language

Total Credits: 10

1 It is recommended that students take CLPS 1310 and CLPS 1330 before higher level courses.

**Honors (12 courses)**

Candidates for Honors in Linguistics must meet all of the requirements above, write an Honors thesis, and take two additional courses. One course is normally CLPS 1980 (Directed Research in Cognitive, Linguistic, and Psychological Sciences) - intended for work on the Honors thesis. Three of the total 12 courses must be drawn from the advanced list above (the Directed Research course counts as one of the advanced courses). Normally a 3.5 grade-point average in the concentration is required for admission to the Honors program. Honors candidates should formalize their projects in consultation with their advisors by the end of September 6. Refer to the CLPS Honors Program page for detailed information about the Linguistics Honors program.

**Independent Study**

Independent study is encouraged for the A.B. degree. Students should sign up for CLPS 1980 with a faculty advisor who is a member of the Department of Cognitive and Linguistic Sciences (CLPS). Arrangements should be made in Semester 6 for students expecting to do independent study during Semesters 7 and/or 8.

**Do Foreign Language Courses Count?**

Foreign language courses will generally not count towards the concentration requirements, except those that 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.

**NOTE:** Please refer to the Cognitive, Linguistic, and Psychological Sciences undergraduate Linguistics concentration page for updates not listed here.

**Literary Arts**

Brown’s 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 course work:

1. At least four creative writing workshops from among the following series: LITR 0100, LITR 0110, LITR 0210, LITR 0310, LITR 0610, LITR 1010, LITR 1110, LITR 1150 and LITR 1410. At least two genres must be covered within the four courses taken. An independent study in literary arts (LITR 1310 and LITR 1510) 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. At least six classes (workshops and reading/research courses) that shall count toward the concentration must be taken at Brown through the Literary Arts Department. 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 25 September. Interested students should obtain information from the office of the Literary Arts Department.

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 department’s 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): 2

- MATH 0180 & MATH 0520: Intermediate Calculus and Linear Algebra
- MATH 0180 & MATH 0540: Intermediate Calculus and Honors Linear Algebra
- MATH 0200 & MATH 0520: Intermediate Calculus (Physics/Engineering) and Linear Algebra
- MATH 0350 & MATH 0540: Honors Calculus and Honors Linear Algebra
- Or the equivalent

**Program:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1530</td>
<td>1</td>
</tr>
</tbody>
</table>

**Five other 1000- or 2000-level Mathematics courses** 5

**Total Credits** 8

**Standard program for the Sc.B. degree**

**Prerequisites:**

Multivariable calculus and linear algebra (choose one of the following sequences): 2

- MATH 0180 & MATH 0520: Intermediate Calculus and Linear Algebra
- MATH 0180 & MATH 0540: Intermediate Calculus and Honors Linear Algebra
- MATH 0200 & MATH 0520: Intermediate Calculus (Physics/Engineering) and Linear Algebra
- MATH 0350 & MATH 0540: Honors Calculus and Honors Linear Algebra
- 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>2</td>
</tr>
<tr>
<td>MATH 1530</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1540</td>
<td>1</td>
</tr>
<tr>
<td>or 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>
</tbody>
</table>

**Total Credits** 14

**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 1970. 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></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](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>
</tbody>
</table>
or MATH 0540 Honors Linear Algebra
or CSCI 0530 Coding the Matrix: An Introduction to Linear Algebra for Computer Science

Core Courses

| MATH 1530 | Abstract Algebra | 1 |
| CSCI 0150 & CSCI 0160 | Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures | 2 |
| CSCI 0170 & CSCI 0180 | Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction | 
| 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 CS course) | 
| CSCI 0320 or CSCI 0330 | Introduction to Software Engineering or Introduction to Computer Systems | 1 |
| CSCI 0220 | Introduction to Discrete Structures and Probability | 1 |
| CSCI 1010 | Theory of Computation | 
| Three 1000-level Mathematics courses | 3 |
| Three advanced courses in Computer Science | 3 |
| Three additional courses different from any of the above chosen from Mathematics, Computer Science, Applied Mathematics, or related areas | 3 |
| A capstone course in Computer Science or Mathematics | 1 |
| Total Credits | 19 |

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 Note: CSCI 1010 and 1450 may be used either as a math-oriented intermediate course or as advanced courses. CSCI 1010 was formerly known as CSCI 510: they are the same course and hence only one may be taken for credit. CSCI 1450 was formerly known as CSCI 450: they are the same course and hence only one may be taken for credit. Applied Math 1650 or 1655 may be used in place of CSCI 1450. However, concentration credit will be given for only one of Applied Math 1650, 1655, and CSCI 1450.

3 These must be approved by a concentration advisor.

4 A one-semester course, 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?
- 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.

Mathematics-Economics Concentration

The Mathematics 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. Students may choose either the standard or the professional track, both award a Bachelor of Arts degree.

Standard Mathematics-Economics Concentration

| Economics | ECON 1130 Intermediate Microeconomics (Mathematical) | 1 |
| ECON 1210 Intermediate Macroeconomics | 1 |
| ECON 1630 Econometrics I | 1 |
| Two courses from the "mathematical-economics" group | 2 |
| ECON 1170 Welfare Economics and Social Choice Theory | 
| ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies | 
| ECON 1465 Market Design: Theory and Applications | 
| ECON 1470 Bargaining Theory and Applications | 
| ECON 1640 Econometrics II | 
| ECON 1650 Financial Econometrics | 
| ECON 1660 Big Data | 
| 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 course from the "data methods" group | 1 |
| ECON 1301 Economics of Education I | 
| ECON 1305 Economics of Education: Research | 
| ECON 1310 Labor Economics | 
| ECON 1360 Health Economics | 
| ECON 1410 Urban Economics | 
| ECON 1480 Public Economics | 
| ECON 1510 Economic Development | 
| ECON 1520 The Economic Analysis of Institutions |
Undergraduate Concentrations

ECON 1530 Health, Hunger and the Household in Developing Countries
ECON 1629 Applied Research Methods for Economists
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1759 Data, Statistics, Finance
ECON 1765 Finance, Regulation, and the Economy: Research

Two additional 1000-level economics courses 2

Mathematics

Calculus: MATH 0180 or higher 1
Linear Algebra - one of the following: 1
MATH 0520 Linear Algebra
MATH 0540 Honors Linear Algebra
Probability Theory - one of the following: 1
MATH 1610 Probability
MATH 1620 Mathematical Statistics
APMA 1650 Statistical Inference I
Analysis - one of the following: 1
MATH 1010 Analysis: Functions of One Variable
MATH 1130 Functions of Several Variables
MATH 1140 Functions Of Several Variables
Differential Equations - one of the following: 1
MATH 1110 Ordinary Differential Equations
MATH 1120 Partial Differential Equations
One additional course from the Probability, Analysis, and Differential Equations courses listed above 1

Total Credits 14

1 Or ECON 1110 with permission.
2 No course may be "double-counted" to satisfy both the mathematical-economics and data methods requirement.

Honors and Capstone Requirement:

Admission to candidacy for honors in the concentration is granted on the following basis: 3.7 GPA for Economics courses, and 3.5 GPA overall. To graduate with honors, a student must write an honors thesis in senior year following the procedures specified by the concentration (see Economics Department website). Beginning with the class of 2016, students not writing an honors thesis must complete an alternative senior capstone project and obtain approval of a faculty sponsor.

Professional Track

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 relevant 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.

Medieval Cultures

Medieval Cultures offers two distinct areas of historical focus: the Medieval and the Late Antique. The former focuses on the sixth 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.

Under the supervision of the director of the program, students may choose courses from the following:

Rels 0025 Wealth: Religious Approaches
JUDS 0050M Difficult Relations? Judaism and Christianity from the Middle Ages until the Present
ENGL 0100D Matters of Romance
RELS 0110 Christians
RELS 0150 Islam Unveiled
HIST 0150B The Philosophers' Stone: Alchemy From Antiquity to Harry Potter
ENGL 0150C The Medieval King Arthur
RELS 0290D Islamic Sexualities
ENGL 0300F Beowulf to Aphra Behn: The Earliest British Literatures
ENGL 0310F Prose Sagas of the Medieval North
HIAA 0321 Toward a Global Late Antiquity:200-800 CE
MDVL 0360 Cities: Medieval Perspectives
RELS 0410 Christianity in Late Antiquity
RELS 0415 Ancient Christian Culture
HIAA 0460 Muslims, Jews and Christians in Medieval Iberia
COLT 0510K The 1001 Nights
HIST 0521A Christianity in Conflict in the Medieval Mediterranean
HIST 0521M The Holy Grail and the Historian's Quest for the Truth
CLAS 0600 The Literary Worlds of Late Antiquity
MDVL 0620 Muslims, Jews, and Christians in Medieval Iberia
HIST 0621B The Search for King Arthur
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELS 0640</td>
<td>Dying To Be With God: Jihad, Past and Present</td>
</tr>
<tr>
<td>CLAS 0660</td>
<td>The World of Byzantium</td>
</tr>
<tr>
<td>JUDS 0681</td>
<td>Great Jewish Books</td>
</tr>
<tr>
<td>HISP 0750E</td>
<td>Topics in Hispanic Culture and Civilization</td>
</tr>
<tr>
<td>MUSC 0910</td>
<td>Medieval and Renaissance Music</td>
</tr>
<tr>
<td>ITAL 1010</td>
<td>Dante in English Translation: Dante's World and the Invention of Modernity</td>
</tr>
<tr>
<td>PHIL 1100C</td>
<td>Medieval Arabic Philosophy</td>
</tr>
<tr>
<td>LATN 1110F</td>
<td>Fortunatus</td>
</tr>
<tr>
<td>LATN 1110H</td>
<td>Literature at the Court of Charlemagne</td>
</tr>
<tr>
<td>LATN 1110L</td>
<td>Medieval Latin Lyric</td>
</tr>
<tr>
<td>GREK 1110Q</td>
<td>Greek Erotic Literature: From Plato to the Medieval Romances</td>
</tr>
<tr>
<td>GREK 1110T</td>
<td>Rhetors and Philosophers: Intellectual Thought and Sophistic Style in the Ancient World</td>
</tr>
<tr>
<td>LATN 1120C</td>
<td>Survey of Late and Medieval Latin</td>
</tr>
<tr>
<td>LATN 1120D</td>
<td>Alcuin</td>
</tr>
<tr>
<td>CLAS 1120G</td>
<td>The Idea of Self</td>
</tr>
<tr>
<td>CLAS 1120V</td>
<td>The Age of Constantine: The Roman Empire in Transition</td>
</tr>
<tr>
<td>HIST 1205</td>
<td>The Long Fall of the Roman Empire</td>
</tr>
<tr>
<td>HIST 1210A</td>
<td>The Viking Age</td>
</tr>
<tr>
<td>HIST 1211</td>
<td>Crusaders and Cathedrals, Deviants and Domination: Europe in the High Middle Ages</td>
</tr>
<tr>
<td>HIST 1260D</td>
<td>Living Together: Muslims, Christians, and Jews in Medieval Iberia</td>
</tr>
<tr>
<td>HIST 1280</td>
<td>Death from Medieval Relics to Forensic Science</td>
</tr>
<tr>
<td>RELS 1300</td>
<td>Ancient Christianity and the Sensing Body</td>
</tr>
<tr>
<td>COLT 1310E</td>
<td>A Classical Islamic Education: Readings in Arabic Literature</td>
</tr>
<tr>
<td>ENGL 1310T</td>
<td>Chaucer</td>
</tr>
<tr>
<td>ENGL 1310V</td>
<td>Chaucer: The Canterbury Tales</td>
</tr>
<tr>
<td>ENGL 1311E</td>
<td>History of the English Language</td>
</tr>
<tr>
<td>ENGL 1311H</td>
<td>Sagas Without Borders: Multilingual Literatures of Early England</td>
</tr>
<tr>
<td>ENGL 1311L</td>
<td>From Mead-Hall to Mordor: The Celtic and Germanic Roots of Tolkien's Fiction</td>
</tr>
<tr>
<td>RELS 1325D</td>
<td>Desire and the Sacred</td>
</tr>
<tr>
<td>HISP 1330T</td>
<td>El amor en español</td>
</tr>
<tr>
<td>ENGL 1360F</td>
<td>Quest, Vision, Diaspora: Medieval Journey Narratives</td>
</tr>
<tr>
<td>ENGL 1360H</td>
<td>Introduction to the Old English Language</td>
</tr>
<tr>
<td>ENGL 1360J</td>
<td>Middle English Literature</td>
</tr>
<tr>
<td>ENGL 1360U</td>
<td>Europe in the Vernacular</td>
</tr>
<tr>
<td>ENGL 1361D</td>
<td>Women’s Voices in Medieval Literature</td>
</tr>
<tr>
<td>ENGL 1361K</td>
<td>Seminar in the Old English Language II</td>
</tr>
<tr>
<td>HIST 1440</td>
<td>The Ottomans: Faith, Law, Empire</td>
</tr>
<tr>
<td>HIIA 1440B</td>
<td>Architecture of Solitude: The Medieval Monastery</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 1530D</td>
<td>Medieval Islamic Sectarianism</td>
</tr>
<tr>
<td>HIIA 1560A</td>
<td>Italy and the Mediterranean</td>
</tr>
<tr>
<td>ASYR 1600</td>
<td>Astronomy Before the Telescope</td>
</tr>
<tr>
<td>JUDS 1630</td>
<td>The Talmud</td>
</tr>
<tr>
<td>CLAS 1750L</td>
<td>Erotic Desire in the Premodern Mediterranean</td>
</tr>
<tr>
<td>COLT 1813P</td>
<td>Captive Imagination: Writing Prison in the Middle Ages</td>
</tr>
<tr>
<td>ENGL 1900Y</td>
<td>Medieval Manuscript Studies: Paleography, Codicology, and Interpretation</td>
</tr>
<tr>
<td>HIST 1963L</td>
<td>Barbarians, Byzantines, and Berbers: Early Medieval North Africa, AD 300-1050</td>
</tr>
<tr>
<td>HIST 1963M</td>
<td>Charlemagne: Conquest, Empire, and the Making of the Middle Ages</td>
</tr>
<tr>
<td>HIST 1963Q</td>
<td>Sex, Power, and God: A Medieval Perspective</td>
</tr>
<tr>
<td>MDVL 1970</td>
<td>Independent Study</td>
</tr>
<tr>
<td>HIST 1979H</td>
<td>Prostitutes, Mothers, + Midwives: Women in Pre-modern Europe and North America</td>
</tr>
<tr>
<td>MDVL 1990</td>
<td>Honors Thesis</td>
</tr>
<tr>
<td>HISP 2030D</td>
<td>Fifteenth-Century Sentimental Romances and Celestina</td>
</tr>
<tr>
<td>GREK 2110F</td>
<td>Greek Palaeography and Premodern Book Cultures</td>
</tr>
<tr>
<td>ENGL 2360Q</td>
<td>Manuscript, Image, and the Middle English Text</td>
</tr>
<tr>
<td>HIST 2970A</td>
<td>New Perspectives on Medieval History</td>
</tr>
</tbody>
</table>

**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 second reader drawn from the Medieval Studies faculty.

Interested students should contact the concentration advisor for further details or consultation (863-1994).

**Late Antique Cultures Track**

**Requirements:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 1310</td>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
</tr>
<tr>
<td>CLAS 1320</td>
<td>Roman History II: The Roman Empire and Its Impact (recommended)</td>
</tr>
</tbody>
</table>

One class in medieval history

One course at the advanced level (numbered at least 1000) in one approved language

Six other courses drawn from appropriate offerings and with the approval of the concentration advisor. These courses should support a concentrational 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.

Under the supervision of the director of the program, students may choose courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 0660</td>
<td>The World of Byzantium</td>
</tr>
<tr>
<td>CLAS 1120G</td>
<td>The Idea of Self</td>
</tr>
</tbody>
</table>
Undergraduate Concentrations

Perspective
Sex, Power, and God: A Medieval Perspective

Early Medieval North Africa, AD 300-1050

Barbarians, Byzantines, and Berbers: Ages Dominance: Europe in the High Middle Ages

Crusaders and Cathedrals, Deviants and Jews in Medieval Iberia

The Viking Age

The Long Fall of the Roman Empire

The Search for King Arthur

for the Truth

The Holy Grail and the Historian's Quest

Mediterranean Christianity in Conflict in the Medieval Mediterranean

Alcuin

Women's Voices in Medieval Literature

Chaucer: The Canterbury Tales

Sagas Without Borders: Multilingual Literatures of Early England

From Mead-Hall to Mordor: The Celtic and Germanic Roots of Tolkien's Fiction

Quest, Vision, Diaspora: Medieval Journey Narratives

Introduction to the Old English Language

Middle English Literature

Europe in the Vernacular

Women's Voices in Medieval Literature

Medieval Manuscript Studies: Paleography, Codicology, and Interpretation

Manuscript, Image, and the Middle English Text

Greek Erotic Literature: From Plato to the Medieval Romances

Rhetors and Philosophers: Intellectual Thought and Sophistic Style in the Ancient World

Greek Palaeography and Premodern Book Cultures

Toward a Global Late Antiquity: 200-800 CE

Muslims, Jews, and Christians in Medieval Iberia

Architecture of Solitude: The Medieval Monastery

Fifteenth-Century Sentimental Romances and Celestina

The Philosophers' Stone: Alchemy From Antiquity to Harry Potter

Christianity in Conflict in the Medieval Mediterranean

The Holy Grail and the Historian's Quest for the Truth

The Search for King Arthur

The Long Fall of the Roman Empire

The Viking Age

Living Together: Muslims, Christians, and Jews in Medieval Iberia

Crusaders and Cathedrals, Deviants and Domination: Europe in the High Middle Ages

Barbarians, Byzantines, and Berbers: Early Medieval North Africa, AD 300-1050

Sex, Power, and God: A Medieval Perspective

Charlemagne: Conquest, Empire, and the Making of the Middle Ages

Early Modern Globalization

New Perspectives on Medieval History

Difficult Relations? Judaism and Christianity from the Middle Ages until the Present

Great Jewish Books

The Talmud

Cities: Medieval Perspectives

Muslims, Jews, and Christians in Medieval Iberia

Independent Study

Honors Thesis

Medieval Arabic Philosophy

Wealth: Religious Approaches

Islam Unveiled

Islam Unveiled

Christians

Islam Unveiled

Christianity in Late Antiquity

Dying To Be With God: Jihad, Past and Present

Ancient Christianity and the Sensing Body

Pilgrimage and Sacred Travel in the Lands of Islam

Methods and Problems in Islamic Studies: Narratives

Middle East Studies

Middle East Studies (MES) is an interdisciplinary concentration that draws upon courses offered by a distinguished core faculty in the humanities and the social sciences. Regardless of one's passions – whether history, religion, politics, culture, literature, modern media, philosophy or practices of everyday life – the Middle East is an ideal site for considering the diversity and complexity of the human experience. A growing number of exciting courses, creative and relevant programming, and a steady stream of post-docs and visiting professors offer unparalleled opportunities for MES concentrators who wish to understand this region and to engage with a broad range of issues that affect our world.

Standard Program for the AB Degree - Effective for the Class of 2020

Approaches to the Middle East

Cultures of the Contemporary Middle East

Ethnographies of the Middle East

Ways of Seeing: The Arab World in Global Perspective

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Effective through the Class of 2019

Standard Program for the AB Degree -

Foundational Courses, which may include (among others):

- MES 1993  Middle East Politics
- COLT 0812H  Literary Bestsellers of the Islamic World
- HIST 0244  Understanding the Middle East: 1492 to the Present
- HIST 0247  Civilization, Empire, Nation: Competing Histories of the Middle East
- HIST 1969C  Debates in Middle Eastern History
- RELS 0150  Islam Unveiled

Language Semesters: Basic competence in at least one of the modern Middle Eastern Languages is required. This entails taking at least six semesters of coursework in one of the modern Middle Eastern languages such as Arabic, Persian, Hebrew, Turkish, etc.

Electives: Two courses chosen from the list of courses that are cross-listed by Middle East Studies and approved by the Concentration advisor. Students should also seek a good balance between courses by taking courses in the humanities and social sciences. Students should also seek a good balance between courses whose primary subject matter is pre-modern (ancient and medieval) and modern and contemporary Middle East. Independent study courses cannot be counted towards the elective requirement.

Capstone/Honors Project: This can take many forms such as:

1. A paper of approximately 30 pages for an existing concentration-eligible (MES-coded or X-Listed) WRIT-designated course, undertaken with the permission of the instructor.
2. An independent study or project (artistic, research, or otherwise) supervised by at least one faculty member for at least one semester under MES 1970 - Independent Study designation.
3. An Honors Thesis

Concentration advisor. Students should acquire a good balance of courses by taking courses in the humanities and social sciences. Students should also seek a good balance between courses whose primary subject matter is pre-modern (ancient and medieval) and modern and contemporary Middle East. Independent study courses cannot be counted towards the elective requirement.

Capstone/Honors Project: This can take many forms, such as:

1. A paper of approximately 30 pages for an existing concentration-eligible (MES-coded or X-Listed) WRIT-designated course, undertaken with the permission of the instructor.
2. An independent study or project (artistic, research, or otherwise) supervised by at least one faculty member for at least one semester under MES 1970 - Independent Study designation.
3. An Honors Thesis

Honors students will be required to have six semesters of language study (Advanced).

Two semesters of Independent Study (MES 1970) are required for honors and will raise the number of required courses to 13.

Study Abroad

Concentrators may apply up to two courses per semester of study abroad toward their MES concentration requirements, with a maximum of four courses (for two semesters abroad). Students must meet with their advisors and have them sign off on their specific course selections prior to embarking upon their program. Study abroad transfer credits may only be applied toward fulfilling electives and language requirements. Study abroad transfer credit may not be used to fulfill foundational course requirements.

Honor Thesis

To be eligible for honors, students will have earned an "A" in the majority of courses for the concentration. Honors students will be required to have at least six semesters of language study (Advanced), two semesters of which may be counted toward the elective requirement. Two semesters of Independent Study (MES 1970) towards the Honors Thesis with the thesis advisor(s) are required. This is typically done during senior year and will raise the total number of required courses to 13.

Total Credits

12

1. Two semesters of Independent Study (MES 1970) are required for honors and will raise the number of required courses to 13.
2. Study Abroad

Concentrators may apply up to two courses per semester of study abroad toward their MES concentration requirements, with a maximum of four courses (for two semesters abroad). Students must meet with their advisors and have them sign off on their specific course selections prior to embarking upon their program. Study abroad transfer credits may only be applied toward fulfilling elective and language requirements. Study abroad transfer credit may not be used to fulfill foundational course requirements.

Dual Concentrators

MES concentrators who are dual concentrating may have up to two courses overlap with their second concentration.

Standard Program for the AB Degree - Effective through the Class of 2019

HIST 1968A  Approaches to the Middle East

HIST 0240  Middle East Beginnings
HIST 0243  Modern Middle East Roots: 1492 to the Present
HIST 0244  Understanding the Middle East: 1800s to the Present
HIST 0247  Civilization, Empire, Nation: Competing Histories of the Middle East
HIST 1440  The Ottomans: Faith, Law, Empire
HIST 1455  The Making of the Modern Middle East
HIST 1969C  Debates in Middel Eastern History
RELS 0150  Islam Unveiled
POLS 1270  Middle East Politics

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HIST 1455  The Making of the Modern Middle East
HIST 1969C  Debates in Middel Eastern History
RELS 0150  Islam Unveiled
POLS 1270  Middle East Politics

Language Semesters: Basic competence in at least one of the modern Middle Eastern languages is required. This entails taking at least four semesters of coursework in one of the modern Middle Eastern languages such as Arabic, Persian, Hebrew, Turkish, etc.

Electives: Four courses chosen from the list of courses that are cross-listed by Middle East Studies and approved by the Concentration advisor. Students should acquire a good balance of courses by taking courses in the humanities and social sciences. Students should also seek a good balance between courses whose primary subject matter is pre-modern (ancient and medieval) and modern and contemporary Middle East. Independent study courses cannot be counted towards the elective requirement.

Capstone/Honors Project: This can take many forms, such as:

1. A paper of approximately 30 pages for an existing concentration-eligible (MES-coded or X-Listed) WRIT-designated course, undertaken with the permission of the instructor.
2. An independent study or project (artistic, research, or otherwise) supervised by at least one faculty member for at least one semester under MES 1970 - Independent Study designation.
3. An Honors Thesis

Honors students will be required to have at least six semesters of language study (Advanced).

Two semesters of Independent Study (MES 1970) are required for honors and will raise the number of required courses to 13.

Study Abroad

Concentrators may apply up to two courses per semester of study abroad toward their MES concentration requirements, with a maximum of four courses (for two semesters abroad). Students must meet with their advisors and have them sign off on their specific course selections prior to embarking upon their program. Study abroad transfer credits may only be applied toward fulfilling elective and language requirements. Study abroad transfer credit may not be used to fulfill foundational course requirements.

Dual Concentrators

MES concentrators who are dual concentrating may have up to two courses overlap with their second concentration.

Honors

To be eligible for honors, students will have earned an "A" in the majority of courses for the concentration. Honors students will be required to have at least six semesters of language study (Advanced), two semesters of which may be counted toward the elective requirement. Two semesters of Independent Study (MES 1970) towards the Honors Thesis with the thesis advisor(s) are required. This is typically done during senior year and will raise the total number of required courses to 13.

Total Credits

12

1. Two semesters of Independent Study (MES 1970) are required for honors and will raise the number of required courses to 13.
2. Study Abroad

Concentrators may apply up to two courses per semester of study abroad toward their MES concentration requirements, with a maximum of four courses (for two semesters abroad). Students must meet with their advisors and have them sign off on their specific course selections prior to embarking upon their program. Study abroad transfer credits may only be applied toward fulfilling elective and language requirements. Study abroad transfer credit may not be used to fulfill foundational course requirements.

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Language Semesters: Basic competence in at least one of the modern Middle Eastern languages is required. This entails taking at least four semesters of coursework in one of the modern Middle Eastern languages such as Arabic, Persian, Hebrew, Turkish, etc.

Electives: Four courses chosen from the list of courses that are cross-listed by Middle East Studies and approved by the Concentration advisor. Students should acquire a good balance of courses by taking courses in the humanities and social sciences. Students should also seek a good balance between courses whose primary subject matter is pre-modern (ancient and medieval) and modern and contemporary Middle East. Independent study courses cannot be counted towards the elective requirement.

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Dual Concentrators

MES concentrators who are dual concentrating may have up to two courses overlap with their second concentration.

Honors

To be eligible for honors, students will have earned an "A" in the majority of courses for the concentration. Honors students will be required to have at least six semesters of language study (Advanced), two semesters of which may be counted toward the elective requirement. Two semesters of Independent Study (MES 1970) towards the Honors Thesis with the thesis advisor(s) are required. This is typically done during senior year and will raise the total number of required courses to 13.
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 on 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 complementarily with the analyses conducted elsewhere in MCM.

Track I consists of 11 courses.

Core courses

MCM 0150 Text/Media/Culture: Theories of Modern Culture and Media 1
Select two of the following: 1

MCM 0220 Print Cultures: Textuality and the History of Books 2
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

Additional courses 5
One must be an upper level course from the MCM 1200 series
Two must be senior seminars from the MCM 1500 or MCM 1700 series
Two must be at any level in MCM above MCM 0260
Three additional courses. These courses must be in MCM or in related departments. 2

Total Credits 11
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 focus 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. 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 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:

The honors program in MCM is designed for students who wish to integrate their skills in a special project. Students who qualify for Honors in Track I are eligible to apply to do an Honors project or thesis. Students should submit a letter of intent in their 6th semester, and a formal proposal by the first day of their 7th semester. Applications will be screened by the MCM Honors Committee. (Application forms are available in the MCM office.) If approved, a student must then register for MCM1970 (taken in the 7th semester), a one-credit course which can count towards their Focus Area requirements, and MCM1990 (taken in the 8th semester), a one-credit thesis course in which they complete the Honors project/thesis.

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 0150 Text/Media/Culture: Theories of Modern Culture and Media 1

Select one of the following Introductory Practice or History of a Medium courses: 1

MCM 0710 Introduction to Filmic Practice: Time and Form
MCM 0730 Introduction to Video Production: Critical Strategies and Histories
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 LTR 0110 series
A course from the LITR 0210 series
HIAA 0010 A Global History of Art and Architecture
TAPS 0030 Introduction to Acting and Directing
MUSC 0010 Music in History, from Hildegard to Hamilton
MUSC 0040 World Music Cultures (Africa, America, Europe, Oceania)

One additional course from the following: 1

MCM 0220 Print Cultures: Textuality and the History of Books
MCM 0230 Digital Media
MCM 0240 Television Studies
MCM 0250 Visuality and Visual Theories
students, provided that they have satisfied the prerequisites. All music courses—including performance courses—are open to all Brown students. 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.

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 emphasizes ethnomusicology; and a third 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, Brazilian Choro Ensemble, 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:

**Music Theory**
- MUSC 0550 Theory of Tonal Music (offered every fall) 1
- MUSC 0560 Theory of Tonal Music (offered every spring) 1

**History**
- Select two of the following (the third is optional): 2
  - MUSC 0910 Medieval and Renaissance Music
  - MUSC 0920 Baroque and Classic Music
  - MUSC 0930 Romantic and Modern Music

**Advanced Theory**
- Any two (2) courses in theory and analysis (MUSC 1020-1090) are required, in no particular order. At the beginning of each academic year a list of offered courses fulfilling this requirement will be provided at the department. For example:
  - MUSC 1020 Modal Counterpoint (usually offered every other fall)
  - MUSC 1030 Tonal Counterpoint (usually offered every other fall)
  - MUSC 1040 Analysis of Romantic Musics (usually offered every other fall)
  - MUSC 1050 Advanced Music Theory II (usually offered every other fall)
  - MUSC 1060 Analysis and Performance of Music
  - MUSC 1070 Music After 1945

**Advanced Musicianship**
- MUSC 1010 Advanced Musicianship I (offered every fall) 1
- MUSC 1011 Advanced Musicianship II (offered every spring) 1

**Ethnomusicology**
- MUSC 1900 Introduction to Ethnomusicology (usually offered annually) 1

**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.

#### Ethnomusicology Track:

**Music Theory**
- MUSC 0550 Theory of Tonal Music (offered every fall) 1
- MUSC 0560 Theory of Tonal Music (offered every spring) 1

**Other Foundational Courses**
- ANTH 0100 Introduction to Cultural Anthropology 1
- MUSC 1900 Introduction to Ethnomusicology (usually offered annually) 1

**History**
- Select two of the following (the third is optional): 2
  - MUSC 0910 Medieval and Renaissance Music
  - MUSC 0920 Baroque and Classic Music
  - MUSC 0930 Romantic and Modern Music

**Electives in Ethnomusicology**

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MUSC 1010</td>
<td>Advanced Musicianship I (offered every fall)</td>
</tr>
<tr>
<td>MUSC 1011</td>
<td>Advanced Musicianship II (offered every spring)</td>
</tr>
<tr>
<td>MUSC 1900</td>
<td>Introduction to Ethnomusicology (usually offered annually)</td>
</tr>
</tbody>
</table>

Total Credits 11
Four additional courses in ethnomusicology numbered 1000 or higher are required.¹ 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**
- MUSC 0550 Theory of Tonal Music (offered every fall) 1
- MUSC 0560 Theory of Tonal Music (offered every spring) 1

**Computer Music Foundation**
- MUSC 0200 Computers and Music 1
- MUSC 1200 Seminar in Electronic Music: Recording Studio as Compositional Tool 1
- MUSC 1210 Seminar in Electronic Music: Real-Time Systems 1

**Musicology Ethnomusicology Elective**
- One scholarly course numbered above MUSC 0900 1

**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.¹

Total Credits 10

¹ For a list of qualifying courses, see the concentration advisor.

**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 Elyse_Netto@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:**
- MATH 0090 Introductory Calculus, Part I 1
- MATH 0100 Introductory Calculus, Part II 1
- PHYS 0030 Basic Physics A 1
- PHYS 0040 Basic Physics B 1
- BIOL 0200 The Foundation of Living Systems 1
- CHEM 0330 Equilibrium, Rate, and Structure 1
- CHEM 0350 Organic Chemistry 1

**Core Concentration Courses:**
- NEUR 0010 The Brain: An Introduction to Neuroscience 1
- NEUR 1020 Principles of Neurobiology 1
- NEUR 1030 Neural Systems 1
- One neuroscience lab course 1
- One critical reading course 1
- One statistics course 1
- Four electives related to neuroscience ¹ 4

Total Credits 17

¹ Independent study and honors research projects are encouraged.

**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. Students are asked to identify an area of specialization. There is also a related, but separate concentration in physics and philosophy.

**Standard Concentration**

10 courses total, of which no more than one may be below PHIL 0350, and at least three must be at or above PHIL 0990.

A. Five Area Requirements:

- One course in Ancient Philosophy, e.g.
  - PHIL 0350 Ancient Philosophy 1
  - PHIL 1250 Aristotle
  - PHIL 1260 Plato
  - PHIL 1310 Myth and the Origins of Science

- One course in Early Modern Philosophy, e.g.
  - PHIL 0360 Early Modern Philosophy 1
  - PHIL 1700 Locke, Berkeley, Hume and Others
  - PHIL 1710 17th Century Continental Rationalism
  - PHIL 1720 Kant: The Critique of Pure Reason

- One course in Epistemology or Metaphysics, e.g.
  - PHIL 1660 Metaphysics 1
  - PHIL 1750 Epistemology
  - PHIL 1760 Philosophy of Language
  - PHIL 1770 Philosophy of Mind

- One course in Ethics or Political Philosophy, e.g.
  - PHIL 0500 Moral Philosophy 1
  - PHIL 0560 Political Philosophy
  - PHIL 0880 Ethical Themes in the Contemporary American Short Story
  - PHIL 1400 Ethics in the Novel
  - PHIL 1640 The Nature of Morality
  - PHIL 1650 Moral Theories

- One course in Logic, e.g.
  - PHIL 0540 Logic 1
  - PHIL 1630 Mathematical Logic
  - PHIL 1880 Advanced Deductive Logic
B. Five further courses, chosen to include an item under each of the following three headings:

1) One seminar: a course from the PHIL 0990 series or a seminar at the 2000-level

2) Either a Specialization: Three related courses from one single area of philosophy: e.g., logic and language; philosophy of science; epistemology; philosophy of mind; moral philosophy; political philosophy; ancient philosophy, etc. See Notes below for further details.

Or: a broader selection of courses chosen with the approval of the department's Director of Undergraduate Studies (DUS)

3) Capstone: One of the following four options

a. Reading Course (PHIL 1990): a reading course for one semester involving one professor and one student, leading to the preparation of a substantial research paper on a particular topic. The Reading Course may accompany a 1000-level course being taken concurrently. In this case, the 1000-level course would provide a general overview of the topic and the reading course would consist of a deeper foray into the topic. A one-semester Reading Course may also be a first step towards writing an Honors Thesis.

b. Senior Seminar (PHIL 0990 or 0991): Seminars aimed primarily at advanced undergraduates, on varying topics each year, requiring the completion of substantial research and writing.

c. Graduate Seminar (PHIL 2000-level): seminars mainly aimed at graduate students, but also open to advanced undergraduates, requiring the completion of substantial research and writing. (A 0990- or 2000-level seminar taken as a Capstone also fulfills requirement (B, 1) for a seminar).

d. Honors Thesis: a piece of work expected to be more substantial than the above-mentioned research papers, typically researched and written over the course of the entire senior year (with enrollment in PHIL 1995 Senior Thesis for two semesters) under the supervision of a thesis advisor (possibly, though not necessarily, the specialization advisor). See also Honors Requirements below.

Notes:

- Up to two courses from departments other than the Philosophy department may be included among the ten courses required for the Concentration; no more than one of these two outside courses may count toward the three specialization requirements.

- One course, but not more, may fulfill both an Area Requirement and a Specialization requirement.

- The specialization and the courses that will fulfill it are standardly declared at some point in the course of the Junior year. Those making a Concentration Declaration at an earlier time (e.g. at the end of their Sophomore year) may make a provisional choice of courses which can be revised at a later date with the approval of the department's DUS (Director of Undergraduate Studies).

Honors Requirements:

- Philosophy GPA must be greater than 3.5. (This refers to the GPA at the beginning of the senior year in all philosophy courses, and including at least six courses, five of which were taken for a letter grade).

- Thesis: for further details, see "Senior Year Options" and "Thesis" on the Departmental website.

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:

<table>
<thead>
<tr>
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<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 0070 &amp; PHYS 0160</td>
<td>Analytical Mechanics and Introduction to Relativity and Quantum Physics</td>
<td>2</td>
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<tr>
<td>PHYS 0030 &amp; PHYS 0040</td>
<td>Basic Physics A and Basic Physics B</td>
<td>1</td>
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<tr>
<td>PHYS 0050 &amp; PHYS 0060</td>
<td>Foundations of Mechanics and Foundations of Electromagnetism and Modern Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
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<tr>
<td>PHYS 0500</td>
<td>Advanced Classical Mechanics</td>
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<td>PHYS 0560</td>
<td>Experiments in Modern Physics</td>
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<tr>
<td>PHYS 1410</td>
<td>Quantum Mechanics A</td>
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</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
<td>1</td>
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</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:

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<tbody>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
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Or MATH 0090, MATH 0100

Program:

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</tr>
<tr>
<td>PHYS 1560</td>
<td>Modern Physics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1980</td>
<td>Undergraduate Research in Physics</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits 18
Astrophysics Track for the Sc.B. degree  

**Prerequisites:**

Select one of the following Series:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>&amp; PHYS 0160</td>
<td>and Introduction to Relativity and Quantum Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>&amp; PHYS 0060</td>
<td>and Foundations of Electromagnetism and Modern 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>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus and Intermediate Calculus</td>
<td>1</td>
</tr>
<tr>
<td>&amp; MATH 0180</td>
<td>Advanced Placement Calculus and Intermediate Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>&amp; MATH 0200</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>1</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:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 0720</td>
<td>Methods of Mathematical Physics</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following Math courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0360</td>
<td>Applied Partial Differential Equations I</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1110</td>
<td>Ordinary Differential Equations</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1120</td>
<td>Partial Differential Equations</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>

Three of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1100</td>
<td>Introduction to General Relativity</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1250</td>
<td>Stellar Structure and the Interstellar Medium</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1270</td>
<td>Extragalactic Astronomy and High-Energy Astrophysics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1280</td>
<td>Introduction to Cosmology</td>
<td>1</td>
</tr>
</tbody>
</table>

Two additional 1000- or 2000-level courses in physics or a related field which are not listed as requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits**

18
Mathematical Physics Track for the A.B. degree

Prerequisites:

MATH 0090 or MATH 0100 or MATH 0190: Introductory Calculus, Part I, II, or Advanced Placement Calculus

PHYS 0050: Foundations of Mechanics

Mathematics Courses

MATH 1060: Differential Geometry

MATH 1120: Partial Differential Equations

MATH 1610: Probability

Physics Courses

PHYS 0060: Foundations of Electromagnetism and Modern Physics

or PHYS 0060: Introduction to Relativity and Quantum Physics

PHYS 0470: Electricity and Magnetism

PHYS 0500: Advanced Classical Mechanics

PHYS 0560: Experiments in Modern Physics

Select at least two of the following:

PHYS 0470: Advanced Electromagnetic Theory

PHYS 1350: 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.

Total Credits: 17-18

1 Select Series A alone or two from Series B as indicated.

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 Sc.B. degree

Prerequisites:

Select one of the following series:

- PHYS 0070, & PHYS 0160: Analytical Mechanics and Introduction to Relativity and Quantum Physics
- PHYS 0050, & PHYS 0060: Foundations of Mechanics 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: Introductory Calculus, Part II

Required courses:

PHYS 0070: Analytical Mechanics

PHYS 0160: Advanced Electromagnetic Theory

PHYS 0050: Foundations of Mechanics

PHYS 0060: Experiments in Modern Physics

PHYS 0170: Quantum Mechanics A

PHYS 0180: Quantum Mechanics B

PHYS 0190: Modern Physics Laboratory

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, 5 in Philosophy 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity and Quantum Physics</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one course in Special Relativity and Classical Field Theory:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following in Methods of Experimental and Theoretical physics:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

Select one of the following in Quantum Mechanics and its applications:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 more 1000-level Physics course

**Philosophy Courses**

Select one of the following gateway courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 0210</td>
<td>Science, Perception and Reality</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 0100</td>
<td>Critical Reasoning</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 0060</td>
<td>Modern Science and Human Values</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 0540</td>
<td>Logic</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following courses in Early Modern Philosophy:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 0360</td>
<td>Early Modern Philosophy</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1700</td>
<td>Locke, Berkeley, Hume and Others</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1710</td>
<td>17th Century Continental Rationalism</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1720</td>
<td>Kant: The Critique of Pure Reason</td>
<td>1</td>
</tr>
</tbody>
</table>

Select two of the following courses in Epistemology, Metaphysics and Philosophy of Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1590</td>
<td>Philosophy of Science</td>
<td>2</td>
</tr>
<tr>
<td>PHIL 1620</td>
<td>Philosophy of Quantum Mechanics</td>
<td>2</td>
</tr>
<tr>
<td>PHIL 1660</td>
<td>Metaphysics</td>
<td>2</td>
</tr>
<tr>
<td>PHIL 1670</td>
<td>Time</td>
<td>2</td>
</tr>
<tr>
<td>PHIL 1750</td>
<td>Epistemology</td>
<td>2</td>
</tr>
</tbody>
</table>

**History Courses**

Select one of the following courses in History of Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 0522N</td>
<td>Reason, Revolution and Reaction in Europe</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1825M</td>
<td>Science at the Crossroads</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1976I</td>
<td>The World of Isaac Newton</td>
<td>1</td>
</tr>
</tbody>
</table>

**Calculus**

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus</td>
<td>1</td>
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<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0350</td>
<td>Honors Calculus</td>
<td>1</td>
</tr>
</tbody>
</table>

**Final Project**

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1990</td>
<td>Independent Studies</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
<td>1</td>
</tr>
</tbody>
</table>

A course from the PHIL 0990 Senior Seminar series

Any graduate seminar in Philosophy

**Total Credits**

12

1 Or one more Philosophy course.

**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.

**Political Science**

Why do Hindus and Muslims live in harmony in one city and fight bitterly in another just a few miles away? Why is the U.S. the only industrialized nation without a complete national health insurance? What is the legacy of slavery in the U.S.? Why are there so few women in Congress? How is radicalism in the Middle East changing? Why and how does democracy flourish? Just what is democracy? How do emotions shape our political behavior? What do war movies tell us about the USA? Would less government lead to more social justice? What is social justice? How does smuggling (of drugs, guns, and people) reshape international relations? How do immigrants see the American Dream? What is the American dream?
Political science is about questions like these. You can grapple with every one of them – and many more— in the classrooms of the Brown political science department. We study how people – nations, regions, cities, communities— live their common lives. How people solve (or duck) their common problems. How people govern themselves. How they think, talk, argue, fight, and vote. Students passionate about social challenges may also choose to pursue the Engaged Scholars Program, which allows them to connect theory and practice and gain hands-on experience working with community partners.

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:

For the American politics track, the following two introductory courses are required:

- POLS 0010 Introduction to the American Political Process
- or POLS 0110 Introduction to Political Thought
- or POLS 0200 Introduction to Comparative Politics
- or POLS 0400 Introduction to International Politics

For the international and comparative politics track, the following two introductory courses are required:

- POLS 0200 Introduction to Comparative Politics
- or POLS 0400 Introduction to International Politics
- or POLS 0010 Introduction to the American Political Process
- or POLS 0110 Introduction to Political Thought

For the political theory track, the following two introductory courses are required:

- POLS 0110 Introduction to Political Thought
- or POLS 0200 Introduction to Comparative Politics
- or POLS 0400 Introduction to International Politics

One course in the American politics subfield

One course in the political theory subfield

Two courses in the international and comparative politics subfield

Three upper-level courses in the chosen subfield

One methods course from Political Science:

- POLS 0500 Foundations of Political Analysis
- POLS 1600 Political Research Methods

One research seminar from the POLS 1820, 1821, 1822, 1823 or 1824 offerings that is track related

Two upper-level courses from outside the department related to the specialized track, chosen with the approval of the concentration advisor.

One comparable course from an outside department (APMA 0650, ANTH 1940, CLPS 0900, ECON 1620, ECON 1630, EDUC 1100, EDUC 1110, GEOL 1320, PHP 1501, SOC 1100 or SOC 1120 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 Studies, 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.

To obtain an advisor contact the Concentration Coordinator Patti Gardner.

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 will count as one credit towards the 10 required Political Science courses for the concentration.

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 Lus-o-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.

Requirements

- POBS 0610 Mapping Portuguese-Speaking Cultures: Brazil
- POBS 0620 Mapping Portuguese-Speaking Cultures: Portugal and Africa
- POBS 1030 Portuguese Stylistics: Advanced Language Study and Creative Writing
- POBS 1800E The Brazilian Puzzle: Confronting the Post-Colonial Legacy
- or POBS 1800F The Lusophone World and the Struggle for Modernity

Four additional courses from Portuguese and Brazilian Studies and/or related departments, such as History, Africana Studies, Political Science, Anthropology, Sociology, Music, and the Watson Institute. These courses are intended to develop students’ specific interests within the concentration.

Total Credits

1 One or both of these courses may be replaced by more advanced literature courses conducted in Portuguese.
2 Conducted in Portuguese, the seminar brings the concentrators together for an interdisciplinary consideration of key topics in the Portuguese-speaking world. A research paper written in Portuguese is required.

Senior Project (optional)

In addition to taking a POBS 1800-series concentration seminar, students may choose to complete a senior project attached to any course in Portuguese and Brazilian Studies and related fields, including the Concentration Seminar, the latter possibility to be made at the discretion of the instructor. The advisor of the senior project is the professor of the course from which the project stems. Projects are not limited to papers, and may include short documentaries, a visual arts project, or an oral history project.
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 field’s 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.

The A.B. concentration requires 12 courses. The Sc.B. concentration additionally requires 1 laboratory course and 4 approved science courses, totaling to a total of 17 required courses.

Common Core

The introductory course, “CLPS 0010 Mind, Brain, and Behavior,” surveys the broad territory of the scientific study of the mind, as uniquely represented by our department. The course maps the breadth of the science of the mind, focusing on fascinating questions, garnered insights, common commitments, and successful techniques and approaches. The course could be taken by students interested in the CLPS concentrations or as an introduction at the beginning of one’s college career or as an integration after having completed a number of specialized courses in a particular concentration.

Careers in Psychology and related fields requires familiarity with statistics. Therefore, the Psychology concentration requires a course in Quantitative Methods (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 of AP Statistics, regardless of score. Students who feel that CLPS 0900 is too elementary can complete an approved alternative course (e.g., APMA 1650, CLPS 2906).

Foundation

To provide students with a solid foundation of knowledge in their area of concentration and to minimize redundancy, the Psychology concentration requires four foundation courses in Social/Personality, Perception/Cognition, Development, and Learning/Animal Behavior/Behavioral Neuroscience.

Electives

Each concentrator will take four additional courses that allow the student to go into depth in some of the relevant topics. These electives must include at least two courses in one of the four foundation topics (i.e., Social/Personality, Perception/Cognition, Development, and Learning/Animal Behavior/Behavioral Neuroscience). The courses designed to count as electives will often have foundation courses as prerequisites and may include laboratory courses, content courses, or seminars.

Research Methods and Capstone

Another element in the Psychology concentration is a research methods course that builds on the introductory statistics course (which will be a prerequisite) but exposes students to a variety of topics in research of the mind: to empirical methods (e.g., surveys, chronometry, eye tracking, brain imaging), to common designs (e.g., factorial experimental, correlational, longitudinal), to research ethics, and to best practices of literature review. Concentrators will additionally take either a seminar course or an independent research course to serve as their capstone experience.

Additional requirements for Sc.B.

In line with university expectations, the Sc.B. requirements include a greater number of courses and especially science courses. The definition of “science” is flexible. A good number of these courses will be outside of CLPS, but several CLPS courses might fit into a coherent package as well. In addition, the Sc.B. degree also requires a lab course to provide these students with in-depth exposure to research methods in a particular area of the science of the mind.

Honors Requirement

The Research Methods course will serve as a requirement for admission to the Honors program in Cognitive Science, Cognitive Neuroscience, and Psychology. Previously, any lab course served as this requirement. This practice not only demanded a large number of lab courses as part of the CLPS curriculum but also suffered from frequent mismatches between the type of research the student wished to pursue and the type of lab course available in the relevant semesters. A more general research methods course is likely to prepare students better and more broadly than any single lab course can.

FOR DETAILED UPDATES, PLEASE REFER TO THE COGNITIVE, LINGUISTIC, AND PSYCHOLOGICAL SCIENCES (CLPS) UNDERGRADUATE PAGE.

Requirements for the A.B. degree

STANDARD PROGRAM FOR THE A.B. DEGREE 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<td>CLPS 0010</td>
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<tr>
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<td>CLPS 0610</td>
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<tr>
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Requirements Specific for the Sc.B. degree

STANDARD PROGRAM FOR THE Sc.B. DEGREE

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<td>CLPS 1781</td>
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<td>CLPS 1783</td>
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<td>CLPS 1900</td>
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<td>One Approved Laboratory Course, such as:</td>
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<td>CLPS 1180A</td>
<td>Canine Behavior</td>
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<td>CLPS 1191</td>
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<td>CLPS 1290</td>
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<td>CLPS 1490</td>
<td>Functional Magnetic Resonance Imaging: Theory and Practice</td>
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<td>CLPS 1492</td>
<td>Computational Cognitive Neuroscience</td>
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<td>CLPS 1590</td>
<td>Visualizing Vision</td>
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<td>Laboratory in Developmental Psychology</td>
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<td>CLPS 1791</td>
<td>Laboratory in Social Cognition</td>
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<tr>
<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics</td>
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Four Approved Science Courses, such as:

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<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
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<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
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<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
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<tr>
<td>CSCI 1430</td>
<td>Computer Vision</td>
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<tr>
<td>CSCI 1950F</td>
<td>Introduction to Machine Learning</td>
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<tr>
<td>ENGD 1220</td>
<td>Neuroengineering</td>
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<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
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<td>NEUR 1030</td>
<td>Neural Systems</td>
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<tr>
<td>NEUR 1040</td>
<td>Introduction to Neurogenetics</td>
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<tr>
<td>PHYS 0030</td>
<td>Basic Physics A</td>
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Total Credits 17

1 For the current list of approved courses in all categories, see the CLPS Psychology page.

Public Health

Public Health is an interdisciplinary concentration through which students examine a variety of health issues, including population health and disease, health policy, cross-cultural and international aspects of health, the organizational and social structures through which health services are delivered and received, and the public health system. Courses in the concentration allow students to explore the ways in which the social, political, behavioral and biological sciences contribute to the 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.

The undergraduate component to the five-year AB/MPH differs in some ways from the Public Health concentration. Please refer to http://brown.edu/academics/public-health/education-training/masters/mp-h-program-about-us/combined-programs/abmph. Meet early with a concentration adviser to discuss your plans.

1. Core Courses: (non-substitutable; 4 required for honors, 5 for non-honors)

   PHP 0310 Health Care in the United States 1
   This course is best taken as a freshman or sophomore.
   PHP 0320 Introduction to Public Health 1
   This course is a prerequisite to the Fundamentals of Epidemiology (PHP 0850) and is best taken as a freshman or sophomore.
   PHP 0850 Fundamentals of Epidemiology 1
   This course is best taken by end of junior year before PHP 1910, Senior Seminar.
   PHP 1501 Essentials of Data Analysis 1
   This course is best taken by end of junior year before PHP 1910, Senior Seminar.
   PHP 1910 Public Health Senior Seminar 1
   This course, which is required for all non-honors students and optional for honors students, is taken as a senior. PHP 0320 and PHP 0310 are required prior to course.

2. Environmental Health and Policy (Select one of the following): 1
270 Undergraduate Concentrations

PLCY 1702E Environmental Law and Policy

3. Health, Health Care Systems and Policy (Select one of the following): 1

- PHP 1070 The Burden of Disease in Developing Countries
- PHP 1100 Comparative Health Care Systems
- PHP 1500 Global Health Nutrition
- PHP 1520 Emergency Medical Systems: An Anatomy of Critical Performance
- PHP 1530 Case Studies in Public Health: The Role of Governments, Communities and Professions
- ECON 1360 Health Economics
- PLCY 1700K Health Policy Challenges

4. Social and Behavioral Science for Prevention (Select one of the following): 1

- PHP 1010 Doctors and Patients - Clinical Communication in Medicine
- PHP 1400 HIV/AIDS in Africa: A Multidisciplinary Approach to Support HIV/AIDS Care and Treatment Programs
- PHP 1540 Alcohol Use and Misuse
- PHP 1600 Obesity in the 21st Century: Causes, Consequences and Countermeasures
- PHP 1740 Principles of Health Behavior and Health Promotion Interventions
- PHP 1880 Meditation, Mindfulness and Health
- PHP 1920 Social Determinants of Health
- PHP 2340 Behavioral and Social Science Theory for Health Promotion
- PHP 2365 Public Health Issues in LGBT Populations
- POLS 1740 Politics of Food

5. Approved General Electives (Select four electives; no more than two (2) can be Human Biology/Physiology courses): 4

The four electives may be selected from: A. the approved courses from the areas listed above or B. the approved general electives listed below. Note that ANY PHP course can be counted as a general elective.

- PHP 0030 Health of Hispaniola
- PHP 0050 Pain and the Human Condition: Exploring the Science, Medicine, and Culture of Pain
- PHP 1680I Pathology to Power: Disability, Health and Community
- PHP 1680K Introduction to Conducting Clinical Research
- PHP 1680M The Epidemiology of Violence and its Consequences
- AFRI 1060W Policy, Culture and Discourse that Shape Health and Access to Healthcare
- AMST 1601 Health and Healing in American History
- ANTH 0300 Culture and Health
- ANTH 1020 AIDS in Global Perspective
- ANTH 1242 Bioethics and Culture
- ANTH 1300 Anthropology of Addictions and Recovery
- ANTH 1310 International Health: Anthropological Perspectives
- BIOL 0030 Principles of Nutrition (Human Biology/Physiology course)
- BIOL 0040 Nutrition for Fitness and Physical Activity
- BIOL 0140K Conservation Medicine
- BIOL 0180 The Biology of AIDS
- BIOL 0190E Botanical Roots of Modern Medicine
- BIOL 0200 The Foundation of Living Systems (Human Biology/Physiology course)
- BIOL 0470 Genetics (Human Biology/Physiology course)
- BIOL 0530 Principles of Immunology (Human Biology/Physiology course)
- BIOL 0800 Principles of Physiology (Human Biology/Physiology course)
- BIOL 0860 Diet and Chronic Disease
- BIOL 0920A Controversies in Medicine (Human Biology/Physiology course)
- BIOL 1920B Health Inequality in Historical Perspective
- BIOL 1920C Social Contexts of Disease
- BIOL 1920D Race, Difference and Biomedical Research: Historical Considerations
- CLPS 1783 Nudge: How to Use Social Psychology to Create Social Change
- ENVS 0490 Environmental Science in a Changing World
- ENVS 1580 Environmental Science in a Changing World
- ETHN 1890J Native American Environmental Health Movements
- HMAN 1970G International Perspectives on NGOs, Public Health, and Health Care Inequalities
- NEUR 0010 The Brain: An Introduction to Neuroscience (Human Biology/Physiology course)
- PLCY 1700V Nonprofit Organizations
- PLCY 1802 Engaged Research Engaged Publics
- SOC 0300B Environment and Society
- SOC 0300E HIV/AIDS: Politics, Culture and Society
- SOC 0300F Unequal From Birth: Child Health From a Social Perspective
- SOC 0300K Inequalities and Health
- SOC 1250 Perceptions of Mental Illness
- SOC 1315 Macro-Organizational Theory: Organizations in Social Context
- SOC 1410 Aging and the Quality of Life
- SOC 1540 Human Needs and Social Services
- SOC 1550 Sociology of Medicine
- SOC 1870D Aging and Social Policy
- SOC 1871H Social Perspectives on HIV/AIDS
- SOC 1871N Military Health: The Quest for Healthy Violence

Total Credits 12

Honors:

An Honors track is available for students who qualify. Honors track students are also required to enroll in PHP 1980 in both semesters of their senior year to conduct research and write the honors thesis. Please visit http://www.brown.edu/academics/public-health/education-training/
undergraduate/public-health-concentration/honors-track for more information. Barbara Dailey (Barbara_Dailey@brown.edu) for more information.**

**Study Abroad/Study Away:** Up to four courses taken elsewhere (study abroad or other transfer) may be applied to non-core courses (up to two per semester abroad). Meet with a concentration adviser to discuss; provide a syllabus for each course to be considered for transfer to your concentration plan.

**Public Policy**

Housed in the Watson Institute for International and Public Affairs, the public policy concentration is dedicated to the study 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 with a particular interest in such initiatives should consider the Engaged Scholars Program (http://watson.brown.edu/public-policy/node/391). All concentrators emerge with a sound understanding of institutional change and are well-equipped to contribute to processes of social change.

**Required Courses: 10 courses + capstone**

**Core Courses:**

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<tr>
<td>or PLCY 1700T</td>
<td>Good Government</td>
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<td>Economics for Public Policy</td>
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<tr>
<td>ECON 1110</td>
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<td>Statistics for Public Policy</td>
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<td>POLS 1600</td>
<td>Political Research Methods</td>
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<td>PLCY 1200</td>
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<td>Evaluating the Impact of Social Programs</td>
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**Elective Courses:**

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**Health Policy**

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<td>PHP 1520</td>
<td>Emergency Medical Systems: An Anatomy of Critical Performance</td>
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<td>PHP 1530</td>
<td>Case Studies in Public Health: The Role of Governments, Communities and Professions</td>
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<td>PLCY 1700K</td>
<td>Health Policy Challenges</td>
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**Technology Policy**

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<td>Cybersecurity and International Relations</td>
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<td>PLCY 1700J</td>
<td>GIS and Public Policy</td>
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<td>POLS 1822X</td>
<td>Technology and International Politics</td>
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<td>From Locke to Deep Ecology: Property Rights and Environmental Policy</td>
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<td>ENVS 1555</td>
<td>Urban Agriculture: The Importance of Localized Food Systems</td>
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<td>PHP 1700</td>
<td>Current Topics in Environmental Health</td>
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<td>ECON 1170</td>
<td>Welfare Economics and Social Choice Theory</td>
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<tr>
<td>PLCY 1700Z</td>
<td>State and Local Government</td>
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<tr>
<td>PLCY 1701H</td>
<td>Congressional Leadership, Parties and Public Policy</td>
</tr>
<tr>
<td>POLS 0220</td>
<td>City Politics</td>
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<tr>
<td>POLS 1010</td>
<td>Topics in American Constitutional Law</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Social Policy</td>
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<tr>
<td>ECON 1420</td>
<td>Urbanization in China</td>
</tr>
<tr>
<td>PLCY 1700Q</td>
<td>Urban Policy Challenges: Spatial Inequality in Metropolitan America</td>
</tr>
<tr>
<td>PLCY 1700R</td>
<td>Urban Revitalization: Lessons from the Providence Plan</td>
</tr>
<tr>
<td>SOC 1600</td>
<td>Comparative Development</td>
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<td>URBN 1870F</td>
<td>Housing and Homelessness</td>
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<tr>
<th>Course Code</th>
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<tr>
<td>Modes of Social Change</td>
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<td>PLCY 1700V</td>
<td>Nonprofit Organizations</td>
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<tr>
<td>PLCY 1701Q</td>
<td>Leading Social Ventures - Social Entrepreneurship in Action</td>
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<tr>
<td>PLCY 1800</td>
<td>Investigating Modes of Social Change</td>
</tr>
<tr>
<td>PLCY 1910</td>
<td>Social Entrepreneurship</td>
</tr>
<tr>
<td>SOC 1870A</td>
<td>Investing in Social Change</td>
</tr>
</tbody>
</table>

**Senior Capstone:** The capstone may take the form of an Honors Thesis, Independent Study, a Public Policy internship, research Assistantship, UTRA Assistantship, or designated Senior Seminar.

**Total Credits:** 10

1. Two of the five elective courses must have a primary listing in Public Policy. One of the five must be designated as a writing course.
2. One elective must be focused on global issues.

**Honors**

Candidates for honors should apply in the Spring term of their third year. Successful candidates will enroll in the Public Policy Colloquium and prepare a senior honors paper.

**Religious Studies**

Religious Studies explores religious thought and practice in various historical, political, cultural, and social contexts in order to understand and interpret societies and cultures throughout the world. It fosters scholarly skills such as close reading (of texts, images, artifacts, and other social data), excellence in writing and verbal expression, interpretation of the past and present from multiple forms of evidence, and assessment of contemporary social issues. By exploring the public and private concerns that the study of religion highlights— for example, the creation of community, the nature of the individual, suffering and death, notions
of good and evil -- students discover new ways of engaging the complex world in which they live. As students examine religious activity in the Americas, South and East Asia, the Middle East and West Asia, Africa, and Europe, they not only learn about the formation and transmission of beliefs, behaviors, values, rituals, and identities but also come to understand how diverse peoples have expressed religious understandings of themselves and others through politics, institutions, conflicts, and spaces commonly recognized as secular.

1. Basic Requirement

A concentration in Religious Studies includes a minimum of nine semester-long courses. Those nine courses include RELS 1000 (a seminar in methods in the study of religion) and eight other courses, which must satisfy the concentration’s distribution requirements. Students who transfer to Brown or study abroad must complete at least five courses in Religious Studies at Brown.

2. Distribution of Introductory, Intermediate, and Advanced courses:

Among the eight concentration courses, no more than four courses (out of nine) can be at the introductory level (0001-0199). In addition to any introductory courses and RELS 1000, the plan of study must include at least two intermediate-level courses (0200-0999) and two advanced-level courses (above 1000).

3. Geographic and Methodological Distribution:

In order to ensure that students study a diversity of religious traditions and learn about multiple methods of study, the eight concentration courses (that is, the courses other than RELS 1000) must: 1) reflect more than one approach to the study of religion (e.g., philosophical, anthropological, historical); and 2) examine more than one religious tradition. To ensure that students examine multiple traditions, the plan of study ordinarily should include two or more courses in each of these areas: A) Traditions that merge from the Mediterranean world and West Asia/Islamic World (e.g., Judaism, Christianity, Islam); and B) Traditions that emerge from South and East Asia (e.g., Buddhism, Hinduism, Daoism).

A. Traditions that emerge from the Mediterranean world and West Asia/Islamic World (e.g., Christianity, Judaism, Islam)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>RELS 0011</td>
<td>Faith and Violence</td>
</tr>
<tr>
<td>RELS 0015</td>
<td>Sacred Stories</td>
</tr>
<tr>
<td>RELS 0022</td>
<td>Introduction to the New Testament</td>
</tr>
<tr>
<td>RELS 0025</td>
<td>Wealth: Religious Approaches</td>
</tr>
<tr>
<td>RELS 0050</td>
<td>Love: The Concept and Practice</td>
</tr>
<tr>
<td>RELS 0055</td>
<td>Modern Problems of Belief</td>
</tr>
<tr>
<td>RELS 0056</td>
<td>Spiritual But Not Religious: Making Spirituality in America</td>
</tr>
<tr>
<td>RELS 0058</td>
<td>Christianity and Culture</td>
</tr>
<tr>
<td>RELS 0061</td>
<td>Reason and Religion (PHIL 0040)</td>
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<tr>
<td>RELS 0065</td>
<td>On Being Human: Religious and Philosophical Conceptions of Self</td>
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<tr>
<td>RELS 0068</td>
<td>Religion and Torture</td>
</tr>
<tr>
<td>RELS 0071</td>
<td>Believers, Agnostics, and Atheists in Contemporary Fiction (JUDS 0050A)</td>
</tr>
<tr>
<td>RELS 0075</td>
<td>Blues People: Topics in African American Religion and Culture</td>
</tr>
<tr>
<td>RELS 0085A</td>
<td>From Amsterdam to Istanbul: Christians, Moslems, and Jews (JUDS 0050E)</td>
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<tr>
<td>RELS 0085B</td>
<td>Dead and Loving It: The Cult of the Saints in the Eastern Mediterranean (CLAS 0210P)</td>
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<tr>
<td>RELS 0085C</td>
<td>Foreigners, Refugees, and the Ethics of Minority (JUDS 0061)</td>
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<tr>
<td>RELS 0085D</td>
<td>Religion, Politics, and Culture in America (HIST 0253)</td>
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<tbody>
<tr>
<td>RELS 0087</td>
<td>Religion in America</td>
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<tr>
<td>RELS 0088</td>
<td>Judaism, Christianity, and Islam</td>
</tr>
<tr>
<td>RELS 0090A</td>
<td>Death in the Greek and Biblical Traditions</td>
</tr>
<tr>
<td>RELS 0090E</td>
<td>Faith and Violence</td>
</tr>
<tr>
<td>RELS 0090F</td>
<td>Friendship in the Ancient World</td>
</tr>
<tr>
<td>RELS 0090I</td>
<td>Radical Romantics: Politics, Ecology, and Religion</td>
</tr>
<tr>
<td>RELS 0090J</td>
<td>Death and Afterlife in the Biblical Tradition</td>
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<tr>
<td>RELS 0090K</td>
<td>Christmas in America</td>
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<tr>
<td>RELS 0105</td>
<td>Judaism</td>
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<tr>
<td>RELS 0110</td>
<td>Christians</td>
</tr>
<tr>
<td>RELS 0150</td>
<td>Islam Unveiled</td>
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<tr>
<td>RELS 0200A</td>
<td>Christianity and Economic Inequality</td>
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<tr>
<td>RELS 0201</td>
<td>Ethics After Auschwitz? (JUDS 0080A)</td>
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<tr>
<td>RELS 0240</td>
<td>Judaism and Christianity in Conflict</td>
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<tr>
<td>RELS 0250</td>
<td>Bodily Practice and Religion</td>
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<tr>
<td>RELS 0290G</td>
<td>The Ten Commandments (JUDS 0686)</td>
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<tr>
<td>RELS 0260</td>
<td>Religion Gone Wild: Spirituality and the Environment</td>
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<tr>
<td>RELS 0290D</td>
<td>Islamic Sexualities</td>
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<tr>
<td>RELS 0320</td>
<td>Israeliite Religion</td>
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<tr>
<td>RELS 0321</td>
<td>The Old Testament/Hebrew Bible and Its World (JUDS 0630)</td>
</tr>
<tr>
<td>RELS 0323</td>
<td>Great Jewish Books</td>
</tr>
<tr>
<td>RELS 0325</td>
<td>How the Bible Became Holy</td>
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<tr>
<td>RELS 0330</td>
<td>Jewish and Christian Biblical Interpretation to the Eighteenth Century</td>
</tr>
<tr>
<td>RELS 0360</td>
<td>The Bible as Literature (JUDS 0630)</td>
</tr>
<tr>
<td>RELS 0365</td>
<td>God and Poetry (JUDS 0620)</td>
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<tr>
<td>RELS 0410</td>
<td>Christianity in Late Antiquity</td>
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<td>RELS 0420</td>
<td>Sacred Bodies</td>
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<tr>
<td>RELS 0430</td>
<td>Sacred Stories</td>
</tr>
<tr>
<td>RELS 0440</td>
<td>The World of Byzantium (CLAS 0660)</td>
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<tr>
<td>RELS 0600A</td>
<td>Islam Today: Religion and Culture in the Modern Middle East and Beyond</td>
</tr>
<tr>
<td>RELS 0600B</td>
<td>Islam in America</td>
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<tr>
<td>RELS 0600C</td>
<td>Radical Islam (?)</td>
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<tr>
<td>RELS 0640</td>
<td>Dying To Be With God: Jihad, Past and Present</td>
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<tr>
<td>RELS 0650</td>
<td>Introduction to Islamic Archaeology (ARCH 0600)</td>
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<tr>
<td>RELS 0810</td>
<td>Conservatives vs. Liberals: Religion and Identity in America</td>
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<tr>
<td>RELS 0820</td>
<td>African American Religious Strategies: Martin and Malcolm</td>
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<tr>
<td>RELS 0825</td>
<td>Foundational Texts in African American Theology</td>
</tr>
<tr>
<td>RELS 0830</td>
<td>Religion, Race, and Ethnicity from Kant to Nietzsche</td>
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<tr>
<td>RELS 0840</td>
<td>Christian Politics</td>
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<tr>
<td>RELS 0842</td>
<td>A Game of Thrones: Religion and Nationalism, 1789-1933 (JUDS 0700)</td>
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<tr>
<td>RELS 0845</td>
<td>Religious Freedom in America</td>
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<td>RELS 0850</td>
<td>Liberation Theology in the Americas</td>
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<tr>
<td>RELS 0880A</td>
<td>Difficult Relations? Judaism and Christianity from the Middle Ages until the Present (JUDS 0050M)</td>
</tr>
<tr>
<td>RELS 0880B</td>
<td>Jews and Money (JUDS 0683)</td>
</tr>
<tr>
<td>RELS 0880C</td>
<td>Race, Religion, and the Secular (JUDS 0603)</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Renaissance and Early Modern Studies

The Program in Renaissance and Early Modern Studies (REMS) encourages students to pursue interdisciplinary and multidisciplinary approaches to the study of Europe and its relation with the Americas and Asia in the early modern period. Students focus on the late fourteenth through the late eighteenth centuries—a time marked by scientific and agricultural revolutions, the Reformation, the development of capitalism, and the rise of cultural forms such as the novel, opera, Grub Street journalism and the art market. Concentrators examine the development of new cultural and political forms through the imitation and reworking of those of classical antiquity, the restructuring of patriarchal society, and the emergence of the sovereign nation state. Students take courses in more than a dozen departments affiliated with REMS.

Sponsoring departments include: Africana Studies, Archaeology and the Ancient World, Classics, Comparative Literature, English, French Studies, Hispanic Studies, History, History of Art and Architecture, History of Mathematics, Italian Studies, Judaic Studies, Music, Philosophy, Portuguese and Brazilian Studies, Slavic Languages, and Theatre Arts and Performance Studies. Students are invited to take advantage of this breadth of offerings in order to enhance their understanding of the period, as well as to gain a sense of the uses, limitations, and interrelationships of particular disciplinary approaches.

Requirements

Concentrators are required to take a minimum of 8 courses. These include the following:

1. Three courses on Renaissance and/or early modern topics in one field in which the student has primary interest or training, (for example, literature, history of art and architecture, or history).
2. Three courses related to the Renaissance and/or early modern period chosen from two other fields.
3. A senior project. (Credit will be granted through registration for Independent Study in the department in which the topic of research lies.)
4. Another relevant course of the student's choosing.

In addition, the student must be able to demonstrate a reading knowledge of a relevant modern or ancient language other than English. This language requirement does not count as one of the 8 courses.

Under the supervision of the director of the program, students may choose courses from the following:

- HIAA 0062 The Age of Rubens and Rembrandt: Visual Culture of the Netherlands in the Seventeenth Century
- ENGL 0100C Altered States
- ENGL 0150D Shakespeare's Present Tense
- HIST 0286A History of Medicine I: Medical Traditions in the Old World Before 1700
- ENGL 0310A Shakespeare
- ENGL 0310E Shakespeare: The Screenplays
- HIAA 0550 Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany
- HIAA 0560 Popes and Pilgrims in Renaissance Rome
- HIAA 0630 Cultural History of the Netherlands in a Golden Age and a Global Age
- COLT 0710I New Worlds: Reading Spaces and Places in Colonial Latin America
- FREN 0720A De l'Amour courtois au désir postmoderne
- POBS 0910 On the Dawn of Modernity
- ITAL 0981 When Leaders Lie: Machiavelli in International Context
- FREN 1030A L'univers de la Renaissance: XVe et XVIe siècles

Courses listed in other departments but taught by Religious Studies faculty count toward the program of study. In addition to cross-listed courses taught by Religious Studies faculty, up to three courses taught by faculty in other departments can count toward the program (pending approval by the DUS). Students who transfer to Brown, study abroad, or otherwise petition to include Brown courses not cross-listed with Religious Studies courses as concentrator courses must complete at least five courses in Religious Studies at Brown.
Students will receive Honors when both their primary advisor and their second reader have provided written statements in support of the finished project. The finished paper, which should be a polished and revised, edited, professional work of original research, will be made available to the entire REMS faculty at the Annmary Brown Memorial, with a folder for leaving constructive comments on the finished thesis for the concentrator. This is an optional engagement that we hope will become part of the culture of the program. There will be a public presentation of the Honors work at the end of the Spring semester.

Students planning a December graduation will not be eligible for the Honors Thesis program, although as always they are welcome to work out other ways to pursue projects of independent interest in consultation with an academic advisor.

Students wishing to write an honors thesis must have an A average in the concentration, which means that they will not have received more than one “B” or “S” in any course used for the concentration. Classes taken S/NC may be considered as qualifying the student for Honors if they are marked “S with distinction,” meaning that had the student taken the course for a grade, the grade would have been an “A.” It is advisable for them to have taken at least one class with the person who will advise the thesis, and have already written a research paper before choosing to undertake this year-long writing project. Honors students are strongly encouraged not to take more than 4 classes either semester of their senior year—the Honors class being considered one of the four classes.

Application process:
Each application shall consist of:
1. A very brief (one or two paragraph) cover letter identifying the most appropriate advisor and second readers, and stating also the student’s preparation is for the project. Second readers may be professors who work in areas related to the topic, or in some very special cases (and with advisor’s approval) may be practitioners with whom the student already worked closely, for example.
2. A 2 page double-spaced abstract stating and explaining the topic (subject and argument) of the research to be undertaken, written as clearly as possible.
3. A one-page working bibliography of the most relevant books and major articles to be consulted for the project.
4. A current résumé,
5. A printout of the most recent transcript

The senior project constitutes the capstone for all concentrators. Examples of possible senior projects are: a senior thesis (roughly equivalent to a senior seminar paper), the staging of an early modern play, the performance of early modern music, or an exhibition. The final project will be developed in consultation with two REMS faculty advisors who work closely with the student. Credit is granted through registration for Independent Study in the department for which the topic of research lies.

Liberal Learning
This concentration will help develop your aesthetic awareness, close reading skills, collaborative skills, cultural understanding, facility with symbolic languages, historical awareness, and your speaking and writing.

Science, Technology, and Society
Science, Technology, and Society (STS, formerly Science and Society) is an interdisciplinary concentration that examines the processes of scientific discovery and the establishment of scientific policies and systems of belief from historical, philosophical, anthropological, and sociological perspectives. Concentrators analyze the practices, norms, and values that reflect and shape our deepest convictions about what is considered "science." Students select courses in the physical sciences, life sciences, or mathematics and choose a thematic track that may include the history and philosophy of science; gender and science; race, science and ethnicity; health and medicine; environment and society; or they may create their own independent focus. STS prepares students to follow, guide, and shape scientific knowledge as it travels from the laboratory into the public arena.

Requirements
Consisting of 12 courses, the program of study outlined below will be developed by each student in consultation with the concentration advisor. 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.

- STS 1000: Introduction to Science and Society: Theories and Controversies, or equivalent introductory course: usually taken in the second or third year.
- STS 1900: Senior Seminar in Science and Society, 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 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 [https://www.brown.edu/academics/science-and-technology-studies/](https://www.brown.edu/academics/science-and-technology-studies/)

**Honors**

To qualify for Honors a student must:

- Be in good standing
- Have completed at least two thirds of the concentration requirements by the application deadline
- Have earned a majority of “A” grades in the concentration. Classes taken S/NC will count as qualifying towards that majority if they are marked “S with distinction” or are accompanied by a Course Performance Report ([https://ask.brown.edu/performance_reports](https://ask.brown.edu/performance_reports)) indicating that had the student taken the course for a grade, the grade would have been an “A.”

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### 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 world’s most commonly spoken languages and study some of the world’s 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

**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.**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RUSS 0100</td>
<td>Introductory Russian</td>
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<tr>
<td>RUSS 0200</td>
<td>Introductory Russian</td>
</tr>
<tr>
<td>RUSS 0110</td>
<td>Intensive Russian</td>
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<tr>
<td>RUSS 0300</td>
<td>Intermediate Russian</td>
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<tr>
<td>RUSS 0400</td>
<td>Intermediate Russian</td>
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<tr>
<td>RUSS 0500</td>
<td>Advanced Russian</td>
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<tr>
<td>RUSS 0600</td>
<td>Advanced Russian</td>
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</tbody>
</table>

Summer courses offered on the Brown in Petersburg Program can enable advanced placement in academic year courses:

- RUSS 0250: Introductory Russian in St. Petersburg
- RUSS 0350: Intermediate Russian in St. Petersburg
- RUSS 0550: Advanced Russian in St. Petersburg

In cases where a student's interests and course of study warrant it, and only upon consulting the concentration advisor, the student may apply more than one Slavic language to the concentration (Czech or Polish in addition to Russian), and would then need a combined total of eight semesters of two Slavic languages:

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CZCH 0100</td>
<td>Introductory Czech</td>
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<tr>
<td>CZCH 0200</td>
<td>Introductory Czech</td>
</tr>
<tr>
<td>CZCH 0410A</td>
<td>Boys and Girls: Relationships under Socialist Bohemia</td>
</tr>
<tr>
<td>CZCH 0410B</td>
<td>Coming of Age in Postwar Czechoslovakia</td>
</tr>
<tr>
<td>CZCH 0410C</td>
<td>Czech View of Self and Others</td>
</tr>
<tr>
<td>CZCH 0410D</td>
<td>Czechs and the Big Brother: Czech Lands in the 1980s</td>
</tr>
<tr>
<td>CZCH 0610A</td>
<td>Czech Lands under Occupation and Terror</td>
</tr>
<tr>
<td>CZCH 0610B</td>
<td>Psychosis of Occupation in the Czech Lands</td>
</tr>
<tr>
<td>CZCH 0610C</td>
<td>Czech Cultural Icons, Emblems, and National Identity</td>
</tr>
<tr>
<td>PLSH 0100</td>
<td>Introductory Polish</td>
</tr>
<tr>
<td>PLSH 0200</td>
<td>Introductory Polish</td>
</tr>
<tr>
<td>PLSH 0300</td>
<td>Intermediate Polish</td>
</tr>
<tr>
<td>PLSH 0400</td>
<td>Intermediate Polish</td>
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</tbody>
</table>

The concentration in Slavic Studies requires students to complete a minimum of 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 Studies. Students’ choice of courses is subject to the approval of the concentration advisor.

Courses in the Department of Slavic Studies:

- RUSS 1110: Special Topics in Russian Studies I: Advanced Reading and Conversation
- RUSS 1200: Russian Fantasy and Science Fiction
- RUSS 1250: Russian Cinema
- RUSS 1290: Russian Literature in Translation I: Pushkin to Dostoevsky
Standard program for the Sc.B. degree

RUSS 1300  Russian Literature in Translation II: Tolstoy to Solzhenitsyn
RUSS 1320  Soviet Literature from 1917 to 1953
RUSS 1330  Soviet and Post-Soviet Literature: Propaganda, Dissidence, Underground
RUSS 1340  The Russian Novel
RUSS 1350  Putin, Russia and the New Conflict with the West: Reading Modern Russian Culture
RUSS 1450  Love, Adultery, and Sexuality
RUSS 1500  Approaches to Russian Literature
RUSS 1600  Literature and History: Russian Historical Imagination in the European Context
RUSS 1800  Pushkin
RUSS 1810  Tolstoy
RUSS 1820  Dostoevskv
RUSS 1840  Nabokov
RUSS 1860  Chekhov
RUSS 1900  Russian Jewish Literature and Film
SLAV 1300  Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe)

Sample courses in other departments:
HIST 1268C  The Collapse of Socialism and the Rise of New Russia
POLLS 1220  Politics in Russia and Eastern Europe
TAPS 1430  Russian Theatre and Drama
TAPS 2120  Revolution as a Work of Art

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.

Social Analysis and Research

The Sc.B. concentration in Social Analysis and Research provides both a conceptual and a working knowledge of the techniques for data collection and analysis used for social research in academic and non-academic environments. The centerpiece of the concentration is a rigorous and comprehensive collection of courses: (1) that develop an understanding of the principles underlying the processes of data collection and analysis; and (2) that train students in the application of advanced statistical techniques for data description and analysis. The concepts and skills learned in these courses are reinforced through engagement in applied research with Sociology faculty and/or internships with local organizations in the for profit and not-for-profit sectors.

Concentrators also take courses that provide grounding in the theoretical approaches to social phenomena that are foundational to social research. Graduates develop an understanding of the concepts and processes that underlie the issues studied by sociologists and the analytic techniques that allow sociologists to understand social relations and individual behavior.

Standard program for the Sc.B. degree

Required Core
MATH 0900  Introductory Calculus, Part I  1
SOC 1100  Introductory Statistics for Social Research  1
or APMA 0650  Essential Statistics
or ECON 1620  Introduction to Econometrics
SOC 1020  Methods of Social Research  1
SOC 2010  Multivariate Statistical Methods I  1
SOC 1010  Classical Sociological Theory  1

Three (3) substantive or theory courses (non-methodological courses) in Sociology, two (2) of which must be at the 1000-level or above

Three (3) of the following advanced analysis courses:
SOC 1120  Market and Social Surveys
SOC 1117  Focus Groups for Market and Social Research
SOC 1260  Market Research in Public and Private Sectors
SOC 1340  Principles and Methods of Geographic Information Systems
SOC 2610  Spatial Thinking in Social Science
SOC 2960G  Spatial Data Analysis Techniques in the Social Sciences
SOC 2230  Techniques of Demographic Analysis
SOC 2210  Qualitative Methods
SOC 2020  Multivariate Statistical Methods II
SOC 2240  Event History Analysis

Capstone Experience (1-2 courses)  1-2
A one-semester research internship (not for credit or for credit as SOC 1970 - Independent Study), or a summer research internship (not for credit)  
SOC 2960G Sociology Senior Seminar (SOC 1950)  
Total Number of Courses (12-13)

Total Credits 12-13

Course Substitutions: Students may petition the Undergraduate Concentration Advisor to use one advanced analysis course taken in another department to count toward the three required advanced analysis courses.

Research Internship

A one semester or a summer research internship is required. The research internship is designed to provide students with hands-on experience in social research. Students will typically complete the research internship in their junior year or during the summer between their junior and senior years. Students need to submit an Internship Proposal Form to the Undergraduate Concentration Advisor for approval prior to starting the internship. Upon completion of the internship, students are required to submit to the Undergraduate Concentration Advisor a brief summary report of their experience, which must be signed by the supervisor of the student's internship.

Academic research internships involve work on a faculty member's research project. Activities may range from data collection, data entry, data file management, descriptive analyses, and more advanced model estimation. Students are encouraged to approach faculty about opportunities for working on their research projects. Off-campus research internships are arranged through the Sociology Department Students Affairs Coordinator or the Undergraduate Concentration Advisor. Academic and off-campus research internships will typically entail 5-10 hours of work per week and may or may not involve compensation.

Students may receive academic credit for academic research internships and off-campus internships completed during the academic year if they combine the internship experience with an academic component under the direction of a faculty advisor. Students taking an internship for credit should register for an Individual Research Project (SOC 1970).

The Senior Seminar

The concentration in Social Analysis and Research requires all concentrators to complete a thesis or project in their senior year as a capstone experience. The purpose of the thesis or project is to allow students an opportunity to apply the knowledge they acquired on a topic of their own interests. This capstone experience provides a hands on experience through which students learn what can be done with sociological research methods. To fulfill the capstone requirement students
enroll in SOC 1950 - Senior Seminar during the senior year. The senior seminar is focused on finalizing a senior project or thesis and giving a presentation of the completed work. Participation in this seminar allows each cohort of concentrators to discuss diverse interests and exposes them to a wide range of applications of sociological knowledge.

The senior thesis is supervised by a faculty member who serves as the primary advisor, and one additional faculty member who serves as a reader. The primary advisor and the reader are chosen by the student and approved by the Concentration Advisor. The reader will receive a draft and a finished copy of the students thesis, which the reader will be responsible to grade. The reader may be involved in the earlier development of the thesis depending upon the arrangement made by the student with the reader. The Senior thesis will normally consist of a major research project. By the end of the sixth semester, students must submit a prospectus of the senior thesis to the Concentration Advisor. At the start of the seventh semester students should submit to the Concentration Advisor a proposal (not more than four pages) accompanied by the signature of one faculty member indicating that he or she is willing to serve as primary advisor on the thesis. Only a senior thesis qualifies the student for Honors. A thesis typically includes one or two semesters of course credit through SOC 1980 - Senior Thesis/Project (fall semester) and/or SOC 1990 - Senior Thesis/Project (spring semester). SOC 1980 and SOC 1990 do not count toward the 12-13 course requirement for the concentration.

A senior project differs from a thesis in its scholarly content and form, and it depends only on the evaluation of the senior seminar instructor (although students may elect to have a faculty advisor for the project, in addition to the senior seminar instructor). Whereas the senior thesis follows the form of a conventional research paper, the project allows a wider array of research and creative outputs, including, but not limited to video documentaries, photographic exhibitions, and applied or policy related reports with an off-campus organization. Projects should be complemented by an analytical paper that situates the central subject matter of the project within the context of sociological scholarship. You should decide your senior project in consultation with the Concentration Advisor and the instructor of the Senior Seminar. You may also need to approach a specific faculty member 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 senior project and listing your advisor for the project (if you opt to have one outside of the SOC 1950 instructor).

Due Dates
During the second week of March, a complete draft of the senior thesis must be given to the faculty advisor and the reader for comments, and the final version of the senior thesis is due during the second week of April (exact dates vary from year to year and are announced at the start of the academic year). These deadlines are essential to allow the faculty time to evaluate theses for awards, and to notify the Registrar with recommendations for honors. NO EXTENSIONS WILL BE GRANTED.

Honors
In order to be considered for honors, students must receive a grade point average of at least 3.5 (A=4, B-3, C=2) on all concentration courses taken, and no more than one (1) of the concentration courses with the "S/NC" option. Honors also requires a senior thesis, with a recommendation of Honors by the advisor and reader, that demonstrates an understanding of empirical research.

Independent Study
Students can use no more than one (1) Independent Study course (SOC 1970 to meet the concentration course requirements. This course counts towards a 1000 level substantive requirement and will not serve as a substitute for any of the core concentration requirement.

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. Brown's 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. Concentrators passionate about social challenges may also choose to pursue the Engaged Scholars Program, which allows the opportunity to connect theory and practice and gain hands-on experience working with community partners.

Standard program for the A.B. degree
Ten courses are required:

Requirements: (10 course)

One introductory level course to be selected from: 1
SOC 0010 Culture, Power, and Social Change
SOC 0020 Perspectives on Social Interaction: An Introduction to Social Psychology
SOC 0130 American Heritage: Democracy, Inequality, and Public Policy
SOC 1010 Classical Sociological Theory
SOC 1020 Methods of Social Research
SOC 1100 Introductory Statistics for Social Research
(or APMA 0650 or ECON 1620 or CLPS 0900)
SOC 1950 Senior Seminar 1

Five additional courses 5
a. At least three of the optional courses have to be 1000 level and one of them must be a substantive seminar (1870/1871).
b. Students can choose to take up to two (showcase) lower level (0100 level) courses.
c. Students can petition to take two courses outside of the discipline (this will be allowed only when the proposed course makes sense given the interests of the student, and there is no equivalent sociology course).

Total Credits 10

***See the Sociology website http://www.brown.edu/academics/sociology/ for detail regarding Honors and Independent Studies

The Senior Seminar
Sociology requires all concentrators to complete a thesis or project in their senior year as a capstone experience. The purpose of the thesis or project is to allow students an opportunity to apply the knowledge they acquired on a topic of their own interests. This capstone experience provides a hands on experience through which students learn what can be done with Sociology. To fulfill the capstone requirement students enroll in SOC 1950 – Senior Seminar during the senior year. The senior seminar is focused on finalizing a senior project or thesis and giving a presentation of the completed work. Participation in this seminar allows each cohort of concentrators to discuss their diverse interests and expose them to the wide range of applications of Sociological knowledge.

The senior thesis is supervised by a faculty member who serves as the primary advisor, and one additional faculty member who serves as a reader. The primary advisor and the reader are chosen by the student and approved by the Concentration Advisor. The reader will receive a draft and a finished copy of the student's thesis, which the reader will be responsible to grade. The reader may be involved in the earlier development of the thesis depending upon the arrangement made by the student with the reader. The senior thesis will normally consist of a major research paper. By the end of the sixth semester, students must submit a prospectus of the senior thesis to the Concentration Advisor. At the start of the seventh semester students should submit to the Concentration Advisor a proposal (not more than four pages) accompanied by the signature of one faculty member indicating that he or she is willing to serve as primary advisor on the thesis. Only a senior thesis qualifies the student for Honors. A
thesis typically includes one or two semesters of course credit through - Senior Thesis/Project (fall semester) and/or - Senior Thesis/Project (spring semester) and do not count toward the 10 course requirement for the concentration.

A senior project differs from a thesis in its scholarly content and form, and it depends only on the evaluation of the senior seminar instructor (although students may elect to have a faculty advisor for the project, in addition to the senior seminar instructor). Whereas the senior thesis follows the form of a conventional research paper, the project allows a wider array of research and creative outputs, including but not limited to video documentaries, photographic exhibitions, and applied or policy related reports with an off-campus organization. Projects should be complemented by an analytical paper that situates the central subject matter of the project within the context of sociological scholarship.

You should decide your senior project in consultation with the Concentration Advisor and the instructor of the Senior Seminar. You may also need to approach a specific faculty member within the department to advise you on your project. At the beginning of your senior year you should file a written statement the Concentration Advisor describing your senior project (if you opt to have one outside of the instructor).

Due Dates
During the second week of March, a complete draft of the senior thesis must be given to the faculty advisor and the reader for comments, and the final version of the senior thesis is due during the second week of April (the exact dates vary from year to year and are announced at the start of the academic year).

These deadlines are essential to allow faculty time to evaluate theses for awards, and to notify the Registrar with recommendations for honors. NO EXCEPTIONS WILL BE GRANTED.

Honors
In order to be considered for honors, students must receive a grade point average of at least 3.5 (A=4, B=3, C=2) on all concentration courses taken, and can take no more than one (1) of the concentration courses with the "S/NC" option. Honors also requires a senior thesis, with a recommendation of Honors by the advisor and reader, that demonstrates an understanding of empirical research.

Independent Study
Students can use no more than one (1) Independent Study course to meet the concentration course requirements. This course counts only towards a 1000 level substantive requirement and will not serve as a substitute for any of the core concentration requirements.

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. Students who wish to earn honors must take 12 courses total (see Senior-Year Project below).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0700</td>
<td>Introduction to Modern South Asia</td>
</tr>
<tr>
<td>Two courses in the Humanities with a majority focus in South Asia, such as:</td>
<td></td>
</tr>
<tr>
<td>CLAS 0995</td>
<td>India's Classical Performing Arts</td>
</tr>
<tr>
<td>RELS 1510</td>
<td>Islam in South Asia</td>
</tr>
<tr>
<td>ANTH 0100</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems: Environment, Development, and Governance</td>
</tr>
<tr>
<td>HIST 1979D</td>
<td>Ruined History: Visual and Material Culture in South Asia</td>
</tr>
<tr>
<td>POLS 1280</td>
<td>Politics, Economy and Society in India</td>
</tr>
</tbody>
</table>

At least five additional elective courses. Students can take additional courses in the humanities or social sciences with a focus on South Asia, such as:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0100</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>ANTH 2320</td>
<td>Ideology of Development</td>
</tr>
<tr>
<td>COST 0100</td>
<td>Introduction to Contemplative Studies</td>
</tr>
<tr>
<td>ECON 0510</td>
<td>Development and the International Economy</td>
</tr>
<tr>
<td>ECON 2510</td>
<td>Economic Development I</td>
</tr>
<tr>
<td>HIAA 0081</td>
<td>Architecture of the House Through Space and Time</td>
</tr>
<tr>
<td>HIST 1440</td>
<td>The Ottomans: Faith, Law, Empire</td>
</tr>
<tr>
<td>HNDI 0200</td>
<td>Beginning Hindi or 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>MCM 1505O</td>
<td>Does Utopia Still Exist? Media, politics and the hope of something else</td>
</tr>
<tr>
<td>POLS 0200</td>
<td>Introduction to Comparative Politics</td>
</tr>
<tr>
<td>POLS 1380</td>
<td>Ethnic Politics and Conflict</td>
</tr>
<tr>
<td>RELS 0100</td>
<td>Buddhist Thought, Practice, and Society</td>
</tr>
<tr>
<td>SANS 0200</td>
<td>Elementary Sanskrit II</td>
</tr>
<tr>
<td>SANS 0400</td>
<td>Classical Sanskrit Story Literature</td>
</tr>
<tr>
<td>SANS 1100</td>
<td>Vedic Sanskrit</td>
</tr>
</tbody>
</table>

Total Credits: 10

Language Requirements
Proficiency in a South Asian language is required for the concentration. Demonstrating proficiency can entail passing a written and oral examination, 4 semesters of formal language study at Brown or another institution, or a high school transcript indicating that the language of instruction for all courses was a South Asian language. Native Hindi/Urdu speakers are encouraged to fulfill the language requirement by taking another South Asian language for four semester, such as Sanskrit at Brown or a relevant language at another institution. Up to two language courses can count toward fulfilling the student's elective requirements.

Senior-Year Project
Students must complete either a senior capstone project OR an honors thesis.

Capstone projects or honors theses are opportunities for students to creatively synthesize the thinking on South Asia that they have developed during the concentration. The project should exhibit an empirically and theoretically driven research question or argument about some aspect of South Asia.
of South Asian Studies. The senior-year project should involve some research in at least one South Asian language.

All students are encouraged to start thinking about their capstones in their junior year.

**Capstones** can take two primary forms:

1. A research paper of approximately 30 pages on a topic related to South Asia for an existing concentration-eligible course, undertaken with the permission of the instructor.
2. An independent study-based project. The produce and/or process that constitutes this can be artistic, primary or secondary research-based, internship-related, or something else. The project must be supervised by at least one CCSA faculty member* for at least one semester under SAST 1970. This course can count towards the five elective requirement.

At the end of the junior year, each student should meet with the Director of Undergraduate Study (DUS) to review their plan for completing their capstone. If pursuing a capstone project, students will be required to submit, by the end of the shopping period of the fall of their senior year, a short proposal (300 words) that describes how they are going to complete this requirement.

An **Honors Thesis** is a two-semester independent study supervised by a thesis advisor (SAST 1970). These two courses constitute the additional courses needed for honors in the concentration.

An honors thesis can be textual, or it can take other forms (multi-media, visual, artistic, or musical, for example). The form and substance of a non-textual honors thesis must conform to the rigorous regulations set out by the relevant department(s) and the Dean of the College.

### Additional Honors Requirements

To be eligible for Honors, students will have earned an "A" in the majority of courses for the concentration.

Students may graduate with Honors in South Asian Studies by completing an undergraduate Honors thesis under the supervision of at least one reader drawn from the CCSA faculty* and one additional reader from the Brown (or RISD, in the case of Brown-RISD students) faculty community.

In order to pursue Honors, students must submit the following materials to the CCSA DUS by April 25:

1. A prospectus (3-5 pages, describing the major research questions and methods to be used, complete with bibliography) that has been read and vetted by the student's intended primary reader.
2. An email from the faculty member who will serve as primary reader to the CCSA DUS noting their willingness to advise on the thesis.

In addition, students must:

1. Enroll in a two-semester sequence of Independent Study, SAST 1970 or under a relevant department course code.
2. Designate a second reader by September 30 of the senior year. Second readers should also confirm their willingness to serve as a reader by sending an email to the CCSA DUS.
3. Be in regular contact with the thesis advisor about the progress of the project.
4. Present their research to the CCSA community during their final semester.

For **mid-year graduating students**, the topic and primary reader must be identified and confirmed by mid-November of the junior year, and a second reader must be arranged and confirmed by January 30 of the senior year. A complete penultimate draft of the thesis is due to both readers on April 1. A final draft that incorporates readers’ comments is due back to the readers on April 15 of the student's senior year.

*This includes all people listed under the Faculty, Postdoctoral Associate, and Visiting Scholars (limited to those in residence at Brown) tabs on the CCSA website.

### Statistics

The Bachelor of Science degree in Statistics is designed to provide foundations that include basic statistical concepts and methodologies, and to expose students to the role of statistical thinking and analysis in interdisciplinary research and in the public sphere. To ensure deep rigorous understanding of the foundations and main methods of analysis in statistics, the program is composed of three parts: a) foundations in mathematics and computing, combined with an introduction to statistical thinking and practice; b) four core courses on the fundamentals of statistical theory and data analysis; and c) more advanced material covering important areas of statistical methodology. A capstone project involving substantial data analysis or focused on methodology/theory is required. Students also 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.

The Concentration is based on several premises: that statistics is a scientific discipline in its own right, with specialized methodologies and body of knowledge; that it is essentially concerned with the art and science of data analysis; and that it is best taught in conjunction with specific, substantive applications. To this end, the Concentration is designed to provide foundations that include basic statistical concepts and methodologies, and to expose students to the role of statistical thinking and analysis in interdisciplinary research and in the public sphere. The Concentration prepares students for careers in industry and government, for graduate study in statistics or biostatistics and other related sciences, as well as for professional study in law, medicine, business, or public administration. The undergraduate concentration guide is available here (https://www.brown.edu/academics/public-health/biostatistics/undergraduate-statistics-concentration).

The Undergraduate Concentration in Statistics is administered by the Department of Biostatistics and leads to a Sc.B. degree. To ensure deep rigorous understanding of the foundations and main methods of analysis in statistics, the program is composed of three parts. The first part entails foundations in mathematics and computing, combined with an introduction to statistical thinking and practice. The second part includes four core courses that provide a comprehensive account of the fundamentals of statistical theory and data analysis. The third part delves into more advanced material covering important areas of statistical methodology. In addition to the formal coursework, students are required to complete a capstone project that involves a substantial data analysis or a methodological/theoretical project. Students also 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. Please note that only the required Calculus courses may be accepted with P/F grades. All other required courses must be taken for a grade.

The program requires **thirteen** one-semester courses. The required courses are as follows:

#### LEVEL I - Foundations in Mathematics - Calculus

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part I</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus</td>
</tr>
</tbody>
</table>

#### LEVEL I - Foundations in Mathematics - Linear Algebra

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
</tbody>
</table>

#### Computing

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0160</td>
<td>Introduction to Scientific Computing</td>
</tr>
<tr>
<td>or CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving</td>
</tr>
</tbody>
</table>

#### Introduction to Statistical Thinking and Practice

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHP 1501</td>
<td>Essentials of Data Analysis</td>
</tr>
</tbody>
</table>

#### With the approval of the Director of the Statistics Concentration, one of the following courses may serve as replacement:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>BIOL 0495</td>
<td>Statistical Analysis of Biological Data</td>
</tr>
<tr>
<td>EDUC 1110</td>
<td>Introductory Statistics for Education</td>
</tr>
<tr>
<td>Research and Policy Analysis</td>
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</tbody>
</table>

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* This includes all people listed under the Faculty, Postdoctoral Associate, and Visiting Scholars (limited to those in residence at Brown) tabs on the CCSA website.
LEVEL II - Core Courses in Theory and Data Analysis 2

APMA 1650 Statistical Inference I
or APMA 1655 Statistical Inference I
APMA 1660 Statistical Inference II

OR

MATH 1610 Probability
MATH 1620 Mathematical Statistics

Introduction to Biostatistics 1

PHP 1510 Principles of Biostatistics and Data Analysis

OR

PHP 2510 Principles of Biostatistics and Data Analysis

LEVEL III: Advanced Courses in Statistical Methods 2

PHP 1560 Statistical Computing I

OR

PHP 2560 Statistical Programming with R

AND

PHP 2511 Applied Regression Analysis

OR

PHP 2511 Applied Regression Analysis

Capstone Project 1

PHP 1970 Independent Study

Electives in Social Science and Biostatistics (Students must choose 2) 2

SOC 1120 Market and Social Surveys
SOC 1340 Principles and Methods of Geographic Information Systems
SOC 2230 Techniques of Demographic Analysis
CSCI 1420 Machine Learning
CSCI 1810 Computational Molecular Biology
CSCI 1820 Algorithmic Foundations of Computational Biology
CSCI 1951A Data Science
PHP 0850 Fundamentals of Epidemiology
PHP 2030 Clinical Trials Methodology
PHP 2120 Introduction to Methods in Epidemiologic Research
PHP 2200 Intermediate Methods in Epidemiologic Research
PHP 2515 Fundamentals of Probability and Statistical Inference
PHP 2520 Statistical Inference I
PHP 2530 Bayesian Statistical Methods
PHP 2550 Practical Data Analysis
PHP 2580 Statistical Inference II
PHP 2602 Analysis of Lifetime Data
PHP 2601 Linear Models
PHP 2604 Statistical Methods for Spatial Data
PHP 2610 Causal Inference and Missing Data
PHP 2620 Statistical Methods in Bioinformatics, I
APMA 1070 Quantitative Models of Biological Systems
APMA 1080 Inference in Genomics and Molecular Biology
APMA 1200 Operations Research: Probabilistic Models
APMA 1690 Computational Probability and Statistics
APMA 1710 Information Theory
APMA 1740 Recent Applications of Probability and Statistics
APMA 1860 Graphs and Networks
APMA 2610 Recent Applications of Probability and Statistics
ENGN 2520 Pattern Recognition and Machine Learning
CLPS 1292 Introduction to Programming for the Mind, Brain and Behavior
CLPS 1492 Computational Cognitive Neuroscience
ECON 1360 Health Economics
ECON 1630 Econometrics I
ECON 1640 Econometrics II
ECON 1660 Big Data
MATH 1810A Applied Algebraic Topology

Other Analytical/Computational/ Statistical courses with the approval of the Director of the Statistics Concentration

Total Credits 13

Prospective students will be able to obtain Advanced Placement credit for the requirements in mathematics. 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.

Senior Thesis: A senior honors thesis is not a requirement for graduation, but concentrators who choose to write one are required to write a manuscript that describes a major project of statistical data analysis that they performed or a simulation study to evaluate the performance of a statistical method. Students that decide to write an honor thesis will generally integrate their capstone project into their thesis. Generally, writing a senior thesis includes two semesters of independent study (PHP 1980), the capstone project may serve as one of those.

Honors: Statistics requires the completion of a senior thesis and a superior record in the program.

Study Abroad/Study Away: Up to two courses taken elsewhere (study abroad or other transfer) may be applied to required courses. Meet with a concentration adviser to discuss; provide a syllabus for each course to be considered for transfer to your concentration plan.

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 (rgutman@stat.brown.edu)

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 the opportunity for students to consider 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...
Required Courses

- TAPS 0230 Acting 1
- TAPS 0250 Introduction to Technical Theatre and Production 1
- TAPS 1230 Global Theatre and Performance: Paleolithic to the Threshold of Modernity 1
- TAPS 1240 Performance Historiography and Theatre History 1
- TAPS 1250 Twentieth-Century Western Theatre and Performance 1

Select one of the following:

- TAPS 0220 Persuasive Communication 1
- Any dance history or practice course.
- Any design or theatre production course.
- Any playwriting course.
- One elective to be selected from applied design, performance, or writing areas. This class must be approved by the concentration advisor. 1

Two electives to be selected from relevant theoretical and text-based studies in or cross-listed with the Department of Theatre Arts and Performance Studies, at least one of which must show geographical breadth. For example:

- TAPS 1230 Global Theatre and Performance: Paleolithic to the Threshold of Modernity
- TAPS 1240 Performance Historiography and Theatre History
- TAPS 1250 Twentieth-Century Western Theatre and Performance
- TAPS 1270 Masking, Trancing, Performing, and Spectating in Non-Western and Circumpacific Performance
- TAPS 1281O Acting Outside the Box: Race, Class, Gender and Sexuality in Performance
- TAPS 1280N New Theories for a Baroque Stage
- TAPS 1281O Acting Outside the Box: Race, Class, Gender and Sexuality in Performance
- TAPS 1380 Mise en Scene
- TAPS 1390 Contemporary Mande Performance
- TAPS 1430 Russian Theatre and Drama
- TAPS 1610 Political Theatre of the Americas
- TAPS 1630 Performativity and the Body: Staging Gender, Staging Race
- TAPS 1650 21st Century American Drama
- TAPS 1670 Latino/a Theatre and Performance
- TAPS 1690 Performance, Art, and Everyday Life
- TAPS 2120 Revolution as a Work of Art

Total Credits 10

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 intermedial 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 Arts and Performance Studies and across the university. The study of performance behavior across mediums such as dance, theatre, ritual, and orature allows for geographical breadth. 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

- TAPS 1230 Global Theatre and Performance: Paleolithic to the Threshold of Modernity
- TAPS 1240 Performance Historiography and Theatre History
- TAPS 1250 Twentieth-Century Western Theatre and Performance

Select three of the following (one of which must show geographical breadth) in consultation with the advisor.

- TAPS 1230 Global Theatre and Performance: Paleolithic to the Threshold of Modernity
- TAPS 1240 Performance Historiography and Theatre History
- TAPS 1250 Twentieth-Century Western Theatre and Performance
- TAPS 1270 Masking, Trancing, Performing, and Spectating in Non-Western and Circumpacific Performance
- TAPS 1281O Acting Outside the Box: Race, Class, Gender and Sexuality in Performance
- TAPS 1280N New Theories for a Baroque Stage
- TAPS 1380 Mise en Scene
- TAPS 1390 Contemporary Mande Performance
- TAPS 1430 Russian Theatre and Drama
- TAPS 1610 Political Theatre of the Americas
- TAPS 1630 Performativity and the Body: Staging Gender, Staging Race
- TAPS 1650 21st Century American Drama
- TAPS 1670 Latino/a Theatre and Performance
- TAPS 1690 Performance, Art, and Everyday Life
- TAPS 2120 Revolution as a Work of Art

AFRI 0990 Black Lavender: Black Gay/Lesbian Plays/ Dramatic Constructions in the American Theatre

TAPS 1520 Seminar in Theatre Arts 1

Total Credits 10
### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 1630</td>
<td>Performativity and the Body: Staging Gender, Staging Race</td>
</tr>
<tr>
<td>TAPS 1650</td>
<td>21st Century American Drama</td>
</tr>
<tr>
<td>TAPS 1670</td>
<td>Latino/a Theatre and Performance</td>
</tr>
<tr>
<td>TAPS 1690</td>
<td>Performance, Art, and Everyday Life</td>
</tr>
<tr>
<td>TAPS 2120</td>
<td>Revolution as a Work of Art</td>
</tr>
<tr>
<td>AFRI 0990</td>
<td>Black Lavender: Black Gay/Lesbian Plays/ Dramatic Constructions in the American Theatre</td>
</tr>
<tr>
<td>AFRI 1110</td>
<td>Voices Beneath the Veil</td>
</tr>
</tbody>
</table>

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. These classes must be approved by the concentration advisor.

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. For example:

- AFRI 1070: RPM: Traditional and Contemporary Elements of Intertribal Indigenous Theater in America
- AFRI 1120: African American Folk Traditions and Cultural Expression
- ANTH 1212: The Anthropology of Play
- CLAS 1930C: Parasites and Hypocrites
- MCM 1502J: Race as Archive
- MCM 1503W: Getting Emotional: Passionate Theories (ENGL 1560W)
- MUSC 0040: World Music Cultures (Africa, America, Europe, Oceania)
- RELS 0910: Music, Drama and Religion in India
- RELS 1610: Sacrifice and Society
- TAPS 1520: Seminar in Theatre Arts

**Total Credits:** 10

### 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 theatre 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 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 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 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 theatre to other disciplines. 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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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0100</td>
<td>Playwriting I (or other equivalent Introductory level Playwriting course, to be approved by the advisor)</td>
</tr>
</tbody>
</table>

Select one of the following:

- 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

A writing or composition class in a discipline outside of playwriting (e.g., literature, screenwriting, digital media), to be approved by advisor. For example:

- TAPS 1210: Solo Performance
- TAPS 1280S: Libretto Workshop for Musical Theatre
- TAPS 1500I: Screenwriting
- TAPS 1500J: Script Adaptation
- ENVIS 0520: Wild Literature in the Urban Landscape
- LITR 0110A: Fiction I
- LITR 0110B: Poetry I
- LITR 0210A: Fiction Writing II
- LITR 0210B: Poetry Writing II
- LITR 1150E: Strange Attractors: Adaptations/ Translations
- LITR 1150M: Short Fiction Experiments
- TAPS 1500L: Acting Together on the World Stage: Writing and Political Performance

**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.

**Capstone**

The Capstone is a culminating project/experience designed by the student that fulfills the concentration track. TAPS capstones can take a variety of forms, such as a solo performance or dance piece, the writing of a play, an honor’s thesis or a design project, or directing a production. Students begin working on their capstone in the required senior seminar course, which is offered in the fall term. Capstone projects may be completed in either the fall with the termination of the Seminar, or in the subsequent spring term.

**Honors**

The standard pattern above, plus an honors thesis course taken in Semester VII (TAPS 190), the topic of which would be determined before Semester VII. Candidates for the honors program should have an outstanding academic record and must apply to the Department by April 1 of Semester VI. Proposals can be submitted electronically. Honors are awarded for theses in all concentration tracks. All theses are substantive pieces of writing. Some these are strictly academic. Other honors theses may include a creative component (such as the directing of a play, a solo performance piece, the study and performance of a major role, or the design of a production) but the thesis itself will be a critical, written work based in research relative to that artwork. For plays submitted for honors, the essay should accompany the play, reporting on the research and the process of writing, though the play itself counts as the substantive written work. See the Honors Advisor for more information about proposal and thesis guidelines.

### Urban Studies

The Urban Studies program teaches students to analyze the city, urban life, and urbanization through a variety of disciplinary lenses. Students learn where cities come from, how they grow, thrive, and decline, how they are organized, and how to construct meaningful, inclusive, secure, and sustainable places. The curriculum examines how urban problems arise, how they have been previously addressed, and how to plan cities of the future. Concentrators enjoy the breadth of courses in American Studies, economics, history, literature, history of art and architecture, political science, sociology, and planning as well as provide in-depth courses integrating those perspectives. We introduce the fundamentals of Urban Studies scholarship as well as intense examination of an urban problem in focused seminars. These advanced seminars offer opportunities to write extensive and synthetic interdisciplinary analyses that serve as capstones to the concentration. The program’s 10-course curriculum provides sufficient flexibility to allow students to pursue specific urban interests or to take courses in urban focus areas of Built Environment; Humanities; Social Sciences; and Sustainable Urbanism. The Program insures that students master at least one basic research methodology and perform research or fieldwork projects, which may result in an honors thesis. Fieldwork training includes working with local agencies and nonprofit organizations on practical urban problems. Capstone projects entail original research papers in Urban Studies seminars; academically supervised video, artistic, or community service projects; and Honors Theses for eligible concentrators.

Concentrators who are especially interested in making deeper connections between their curriculum and long-term engaged activities such as internships, public service, humanitarian and development work, and many other possible forms of community involvement might consider the Engaged Scholar Program (https://www.brown.edu/academics/urban-studies/curriculum/engaged-scholars-program) in US. The program combines preparation, experience, and reflection to offer students opportunities to enhance the integration of academic learning and social engagement.

For a concentration, the program requires ten courses selected from four course groups:

**Introduction (choose one):**
- PLCY 0022 City Politics
- URBN 0210 The City: An Introduction to Urban Studies
- URBN 0230 Urban Life in Providence: An Introduction

**Research Methods (choose one):**
- APMA 0650 Essential Statistics
- APMA 1650 Statistical Inference I
- APMA 1660 Statistical Inference II
- CLPS 0900 Statistical Methods
- ECON 1620 Introduction to Econometrics
- EDUC 1110 Introductory Statistics for Education Research and Policy Analysis
- PHP 1501 Essentials of Data Analysis
- POLS 1600 Political Research Methods
- SOC 1020 Methods of Social Research
- SOC 1100 Introductory Statistics for Social Research
- URBN 1500 Understanding the City through Data

**Core Courses (3 courses required, in at least 3 disciplines, such as American studies, anthropology, economics, education, English, history, history of art and architecture, political science, and sociology, as well as urban planning when staffing allows)**
- AMST 1612D Cities of Sound: Place and History in American Pop Music
- ANTH 1236 Urban Life: Anthropology in and of the City
- ANTH 1255 Anthropology of Disasters
- ECON 1410 Urban Economics
- ENGL 0100N City Novels
- ENGL 1760K Reading New York
- ENVS 1400 Sustainable Design in the Built Environment
- ENVS 1580 Environmental Stewardship and Resilience in Urban Systems
- GEOF 1320 Introduction to Geographic Information Systems for Environmental Applications
- HIAA 0074 Nineteenth-Century Architecture
- HIAA 0770 Architecture and Urbanism of the African Diaspora
- HIAA 0840 History of Rhode Island Architecture
- HIAA 0850 Modern Architecture
- HIAA 0860 Contemporary Architecture
- HIAA 0861 City and Cinema
- HIAA 1850D Film Architecture
- HIST 1550 American Urban History, 1600-1870
- HIST 1551 American Urban History, 1870-1965 (HIST 1550: American Urban History to 1870)
- POLS 1310 African American Politics
- POLS 1320 Urban Politics and Urban Public Policy
- SOC 1330 Remaking the City
- SOC 1340 Principles and Methods of Geographic Information Systems
- SOC 1640 Social Exclusion
- URBN 1000 Fieldwork in the Urban Community
- URBN 1200 The United States Metropolis, 1945-2000
- URBN 1210 Regional Planning
- URBN 1220 Planning Sustainable Cities
- URBN 1230 Crime and the City

**Seminar courses (choose three)**

- URBN 1020 Urban and Environmental Planning
- URBN 1030 Urban and Environmental Planning
- URBN 1040 Urban and Environmental Planning
- URBN 1050 Urban and Environmental Planning
- URBN 1060 Urban and Environmental Planning
- URBN 1070 Urban and Environmental Planning
- URBN 1080 Urban and Environmental Planning
- URBN 1090 Urban and Environmental Planning
- URBN 1100 Urban and Environmental Planning
- URBN 1110 Urban and Environmental Planning

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
AMST 1903E  City of the American Century: The Culture and Politics of Urbanism in Postwar New York City
EDUC 1650  Policy Implementation in Education
ENGL 1760F  City, Culture, and Literature in the Early Twentieth Century
HIAA 1850H  Berlin: Architecture, Politics and Memory
HIAA 1910A  Providence Architecture
PLCY 1700J  GIS and Public Policy
SOC 1871W  Geographical Analysis of Society
SOC 2960C  Urban Sociology
URBN 1010  Fieldwork in Urban Archaeology and Historical Preservation
URBN 1870A  American Culture and the City
URBN 1870C  The Environment Built: Urban Environmental History and Urban Environmentalism for the 21st Century
URBN 1870D  Downtown Development
URBN 1870H  Rivers and Cities
URBN 1870I  The Changing American City
URBN 1870J  The Politics of Community Organizing
URBN 1870M  Urban Regimes in the American Republic
URBN 1870N  The Cultural and Social Life of the Built Environment
URBN 1870P  Representing the Twentieth-Century City
URBN 1870Q  Cities in Mind: Modern Urban Thought and Theory
URBN 1870R  Bottom-up Urbanism
URBN 1870S  The City, the River, and the Sea: Social and Environmental Change at the Water's Edge
URBN 1870T  Transportation: An Urban Planning Perspective
URBN 1870U  Critical Urban Theory

Complementary Curriculum (Total of 2 courses required):

1. Any course from the Introductory or Core Curriculum options above not used to fulfill another requirement

2. OR Any of the following:
AFRI 0600  Race, Gender, and Urban Politics
AFRI 0620  African-American Life in the City
AMST 0150B  Boston: A City Through Time
AMST 0190D  Popular Music and the City
AMST 1611A  Making America: Twentieth-Century U.S. Immigrant/Ethnic Literature
AMST 1903G  Oral History and Community Memory
AMST 1904M  Charles Chaplin and the Urban Public Health Movement
ANTH 0450  Inequality, Sustainability, and Mobility in a Car-Clogged World
ANTH 1301  Anthropology of Homelessness
ARCH 0400  City and Sanctuary in the Ancient World
ARCH 1150  Cities and Urban Space in the Ancient World
ARCH 1155  Cities, Colonies and Global Networks in the Western Mediterranean
ARCH 1200F  City and the Festival: Cult Practices and Architectural Production in the Ancient Near East
ARCH 1600  Archaeologies of the Near East
ARCH 1720  How Houses Build People
ARCH 1900  The Archaeology of College Hill
COLT 0811Q  Mediterranean Cities

COLT 1810H  Tales of Two Cities: Havana - Miami, San Juan - New York
DEVL 1650  Urbanization in China: Megacities, Mass Migration, and Citizenship Struggles
EDUC 0410E  Empowering Youth: Insights from Research on Urban Adolescents
EDUC 1100  Introduction to Qualitative Research Methods
EDUC 1150  Education, the Economy and School Reform
EDUC 1430  Social Psychology of Race, Class, and Gender
EDUC 1720  Urban Schools in Historical Perspective
ENGL 1710I  Harlem Renaissance: The Politics of Culture
ENGN 1930S  Land Use and Built Environment: An Entrepreneurial View
ENVS 0520  Wild Literature in the Urban Landscape
ENVS 1410  Environmental Law and Policy
ENVS 1555  Urban Agriculture: The Importance of Localized Food Systems
ENVS 1929  The Fate of the Coast: Land Use and Public Policy in an Era of Rising Seas
ETHN 1890A  Seminar on Latino Politics in the United States
GRMN 1660B  Berlin: A City Strives to Reinvent Itself
HIAA 0550  Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany
HIAA 0560  Popes and Pilgrims in Renaissance Rome
HIAA 1560C  Renaissance Venice and the Veneto
HIAA 1850G  Contemporary American Urbanism: City Design and Planning, 1945-2000
HIAA 1910D  Water and Architecture
HIAA 1910F  City Senses: Urbanism Beyond Visual Spectacle
HIST 1140  Samurai and Merchants, Prostitutes and Priests: Japanese Urban Culture in the Early Modern Period
HIST 1310  History of Brazil
HIST 1741  Capitalism, Land and Water: A World History: 1848 to the present
HIST 1961B  Cities and Urban Culture in China
HIST 1967R  History of Rio de Janeiro
HIST 1979J  London: 1750 to the Present
HIST 1979L  Urban History of Latin America
HIST 1980T  Modernity, Jews, and Urban Identities in Central Europe (JUDS 1718)
HMAM 1971B  Paris Archive: The Capital of the Nineteenth Century, 1848-1871
JAPN 0910B  Japanese Cities: Tokyo and Kyoto
JUDS 1718  Modernity, Jews, and Urban Identities in Central Europe
MDVL 0360  Cities: Medieval Perspectives
PLCY 1200  Program Evaluation
PLCY 1700Q  Urban Policy Challenges: Spatial Inequality in Metropolitan America
PLCY 1700R  Urban Revitalization: Lessons from the Providence Plan
PLCY 1701W  Race, Gentrification, and the Policing of Urban Space
Visual Art

The Visual Art 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 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. All Visual Art (VISA) courses are graded S/NC (https://www.brown.edu/academics/college/degree/policies/grade-options).

Concentration Program Requirements

Concentration Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISA 0100</td>
<td>Studio Foundation (Prerequisite for all upper-level studio courses)</td>
<td>1</td>
</tr>
<tr>
<td>VISA 0120</td>
<td>Foundation Media: Sound and Image (This course is a prerequisite for upper-level Media courses such as New Genre and Video Art)</td>
<td>2</td>
</tr>
<tr>
<td>VISA 0130</td>
<td>3-D Foundation</td>
<td>3</td>
</tr>
<tr>
<td>VISA 0140</td>
<td>Photography Foundation</td>
<td>4</td>
</tr>
<tr>
<td>VISA 0150</td>
<td>Digital 2D Foundation</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5 additional studio courses are required. A minimum of three elective studio courses must be taken in the Brown Visual Art Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 HIAA courses are required:</td>
</tr>
<tr>
<td>HIAA 0010</td>
</tr>
<tr>
<td>1 course covering Modern or Contemporary Art History such as those listed below</td>
</tr>
<tr>
<td>HIAA 0801</td>
</tr>
<tr>
<td>or HIAA 0810</td>
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<tr>
<td>or HIAA 0870</td>
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</tbody>
</table>

One additional History of Art and Architecture course.

Senior Thesis Exhibition: which does not carry academic credit, is required for graduation (usually presented during the seventh or eighth semester).

Total Credits 11

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 eleven 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.