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 2019

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<td>April 1 - April 11, 2019</td>
<td>Mon. - Thurs.</td>
<td>Registration for Summer courses for continuing Brown undergraduates opens at 9:00 a.m. on Monday April 1 and continues through Thursday April 11 at 5:00 p.m.</td>
</tr>
<tr>
<td>April 24 - June 26, 2019</td>
<td>Wed. - Wed.</td>
<td>Registration period for Summer courses for Brown undergraduates re-opens at 9:00 a.m. and remains open until Wednesday June 26 at 5:00 p.m.</td>
</tr>
<tr>
<td>June 24, 2019</td>
<td>Mon.</td>
<td>Summer Session begins.</td>
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<tr>
<td>June 26, 2019</td>
<td>Wed.</td>
<td>Last day to change courses. (All students MUST be in their registered courses by Thursday, June 27.)</td>
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<tr>
<td>July 9, 2019</td>
<td>Tues.</td>
<td>Last day to change grade options.</td>
</tr>
<tr>
<td>Aug 3 - 6, 2019</td>
<td>Sat. - Tues.</td>
<td>Reading period.</td>
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<tr>
<td>August 6, 2019</td>
<td>Tues.</td>
<td>Last day to drop a course. Last day to initiate a Course Performance Report via ASK.</td>
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<tr>
<td>August 9, 2019</td>
<td>Fri.</td>
<td>Summer Session ends.</td>
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<tr>
<td>August 10, 2019</td>
<td>Sat.</td>
<td>Residence halls close.</td>
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### Fall 2019

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<td>Aug. 1, 2019</td>
<td>Thurs.</td>
<td>Last day for payment of charges.</td>
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<tr>
<td>Sept. 3, 2019</td>
<td>Tues.</td>
<td>Opening Convocation at 4:00 p.m. Registration of new students for the first semester (7:00 pm to midnight).</td>
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<tr>
<td>Sept. 4, 2019</td>
<td>Wed.</td>
<td>Classes of the first semester begin.</td>
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<tr>
<td>Sept. 5, 2019</td>
<td>Thurs.</td>
<td>First day of RISD Fall Session.</td>
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<tr>
<td>Sept. 12, 2019</td>
<td>Thurs.</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. 17, 2019</td>
<td>Tues.</td>
<td>Last day to add a course without a fee. (5:00 p.m. deadline.) Banner Web will be taken down for approximately one hour. Once relaunched, all course adds require Instructor override and will be charged a late fee of $15 per course.</td>
</tr>
<tr>
<td>Oct. 1, 2019</td>
<td>Tues.</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>
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<tr>
<td>Oct. 1, 2019</td>
<td>Tues.</td>
<td>Deadline for students currently on non-medical leave to apply for readmission for Semester II.</td>
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### For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Jan. 21, 2020  Tues.  Registration of new students for the second semester (4:00 pm to midnight).

Jan. 22, 2020  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. 4, 2020  Tues.  Last day to add a course without a fee. (5:00 p.m. deadline) Banner Web will be taken down for approximately one hour. Once relaunched, all course adds require instructor override and will be charged late a fee of $15 per course.

Feb. 6, 2020  Thurs.  Last day of Winter RISD classes.


Feb. 19, 2020  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. 20, 2020  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).

March 6, 2020  Fri.  Mid-semester deadline. Last day to change from credit to audit in a course (5:00 p.m. deadline).


March 30, 2020  Mon.  Classes resume.

March 30, 2020  Mon.  Advising period for fall preregistration begins and will end on April 10. Students in their first through third semesters will need to procure their advising PIN from their advisor in order to register.

April 1, 2020  Wed.  Deadline for students currently on non-medical 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).

Apr. 7, 2020  Tues.  Students on serious warning who wish to drop a course after this date must meet with an academic dean for advising and to obtain a drop code.

April 9, 2020  Thurs.  Date by which advisors must approve sophomore submitted concentrations in ASK to avoid having a No Concentration hold placed against the student's Banner registration. (5:00 pm deadline).

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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<td>April 10, 2020</td>
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<td>Deadline for submission of proposals for College Curriculum Council-approved undergraduate group study projects (GSPs), independent study projects, and internships for credit for Semester I.</td>
</tr>
<tr>
<td>April 14, 2020</td>
<td>Tues.</td>
<td>Registration opens for Semester I, 2020-21 for undergraduate students semester level 07 and above and all continuing graduate students at 8:00 a.m. Registration remains open until Tuesday, April 21.</td>
</tr>
<tr>
<td>April 15, 2020</td>
<td>Wed.</td>
<td>Registration opens for Semester I, 2020-21 for undergraduate students semester levels 05-06 at 8:00 a.m. (Students are unable to register for 5th semester unless approved concentration is filed). Registration remains open until Tuesday, April 21.</td>
</tr>
<tr>
<td>April 16, 2020</td>
<td>Thurs.</td>
<td>Registration opens for Semester I, 2020-21 for continuing undergraduate students semester levels 04 and below at 8:00 a.m. Registration remains open until Tuesday, April 21.</td>
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<tr>
<td>Apr. 17 - Apr. 21, 2020</td>
<td>Fri. - Tues.</td>
<td>Registration for Semester I, 2020-21 continues until Tuesday, April 21.</td>
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<td>April 24, 2020</td>
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<td>Reading Period begins and will end on May 5 (optional and at the discretion of the instructor).</td>
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<td>May 1, 2020</td>
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<td>Deadline for undergraduates to declare a leave for Semester I. Theses of candidates for Masters and Ph.D. degrees in May due.</td>
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<td>May 5, 2020</td>
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<td>Reading Period ends.</td>
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<td>May 5, 2020</td>
<td>Tues.</td>
<td>Classes end for courses not observing the Reading Period. Last day to drop a course (5:00 p.m. deadline) or to request an incomplete from an instructor. Last day for advisors to approve second or third concentrations in ASK for students in their penultimate semester (for most students this is 7th semester) who are declaring a second/third concentration (5:00 p.m. deadline). Any declarations not advisor approved and recorded in Banner by the Office of the Registrar by the 5:00 p.m. deadline will not be honored. Last day to initiate a Course Performance Report via ASK.</td>
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<tr>
<td>May 6, 2020</td>
<td>Wed.</td>
<td>Last day for approved 7th (or penultimate) semester undergraduates in eligible concentrations to submit writing completed in the concentration in ASK to complete part II of the writing requirement. Concentration advisors must approved submitted writing in ASK by the last day of the semester.</td>
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<td>May 6 - 15, 2020</td>
<td>Wed. - Fri.</td>
<td>Final Examination Period. (No exams on Sunday May 10).</td>
</tr>
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<td>May 13, 2020</td>
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<td>Last day of Spring RISD classes.</td>
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For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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.

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 M2 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 midterm.

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

Attendance, Grading, Examinations

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

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

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

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

Grading System

At the end of each semester final grades are given in semester courses. In all courses, except those designated by the instructor as Mandatory Satisfactory/No Credit, a student may, in consultation with the advisor, elect to be graded on a basis of either Satisfactory/No Credit or A, B, C, or 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, or Credit or for Satisfactory/No Credit, may request from the instructor a more detailed written evaluation of his or her work. (See Course Performance Report below.) Such supplemental evaluations are intended primarily for the information of the student and do not replace departmental evaluations.

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

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

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 permitted 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 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 2019-2020 is as follows:

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<th>Date</th>
<th>9 am Group</th>
<th>2 pm Group</th>
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<td>Dec. 14 Sat</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 dean 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 instructor 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.

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

Placement and Achievement Tests in Foreign Languages. Placement tests in the foreign languages are given during Orientation Program in the fall and during the first week of classes in each semester. All students, before taking college courses in a foreign language in which they have presented entrance credit, must take either a placement test at Brown University or, preferably, a College Board Language Achievement Test in secondary school. Students with outstanding performance on these tests, or on the Advanced Placement Tests of the College Entrance Examination Board, may be admitted to advanced courses without the usual course prerequisites.

Student Code of Conduct

Academic Code Violations

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

Code of Student Conduct

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

Student Conduct cases are administered by the Office of Student Conduct & Community Standards.

Specific hearing procedures can be found online at www.brown.edu/randr.

Curricular Programs

Community-Based Learning and Research

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.

DIAP Courses: Race, Gender, and Inequality

In support of the University’s broader Diversity and Inclusion Action 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:

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
(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 schedules 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 field.

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

Fall 2019

Anthropology
ANTH 1300 S01 16820 Anthropology of Addictions Irene Glasser

Archaeology and Ancient World
ARCH 1900 S01 17129 Archaeology of College Hill Alex John Marko

English
ENGL 1050P S01 17115 Reframing Race in Art Writing Mary-Kim Arnold

Environmental Studies
ENVS 0110 S01 16518 Humans, Nature and the Environ Dawn King

ENVS 1557 S01 15357 Birding Communities Nancy J. Jacobs

French Studies
FREN 1410T S01 15541 L’expérience des réfugiés Virginia A. Krause

Music
MUSC 1240Z S01 17923 Public Art in Sound and Listen Erik DeLuca

Political Science
POLI 1820I S01 15732 Indigenous Politics in Hawai'i Mary L Baker

Public Policy
PLCY 1703A S01 17361 Youth Politics and Culture Dario Valles

Sociology
SOC 1871J S01 17803 Ethics, Justice, and Transform Michael D. Kennedy

Urban Studies
URBN 1870Z S01 17422 Housing Justice Marijoan Bull

Spring 2020

Anthropology
ANTH 1301 S01 25450 Anthropology of Homelessness Irene Glasser

Archaeology and Ancient World
ARCH 0317 S01 26202 Heritage in the Metropolis Lauren E Yapp

Biology
BIOL 0940E S01 24476 Precision or Privileged Med Robert K. Campbell

Education
EDUC 1890 S01 25944 Family Engagement in Education Yoko Yamamoto

English
ENGL 1140E S01 25729 Writing for Activists Kate J. Schapira

Environmental Studies
ENVS 1555 S01 24964 Urban Agriculture Dawn King

Latin American & Caribbean Studies
LACA 1630 S01 26257 Storytelling in the Americas Erica Durante

Literary Arts
LITR 1152C S01 25668 Writers-in-the-Community Train Eleni A Sikelianos

DIAP Courses: Race, Gender and Inequality

Fall 2019

Africana Studies
AFRI 0090 S01 17157 An Intro to Africana Studies Francoise N. Hamlin
AFRI 0210 S01 17137 Afro Latin Americans Anani Dzidzienyo
AFRI 0670 S01 17141 Global Black Radicalism Brian W E Meeks
AFRI 0980 S01 17144 Fela Kuti African Freedom Dotun Ayobade
AFRI 1020D S01 17196 Race, Rights and Rebellion Keisha-Khan Y. Perry
AFRI 1030 S01 17145 Contesting the Carceral State Lisa L Biggs
AFRI 1110 S01 17140 Voices Beneath the Veil Elmo Terry-Morgan
AFRI 1190 S01 17535 Haiti: A New Wrld, A Free Wrld Barrymore A. Bogues
AFRI 1210 S01 17138 Afro-Brazils + Braziln Polity Anani Dzidzienyo
AFRI 1920 S01 17142 Health Inequality in Historica Lundy Braun

American Studies
AMST 1905O S01 15708 Readings Histories of Violence Monica M. Martinez

Anthropology
ANTH 0066D S02 16812 Who Owns the Past? Patricia E. Rubertone
ANTH 0300 S01 16815 Culture and Health Katherine A. Mason

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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<tr>
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<td>ANTH 1125</td>
<td>S01 16817 Indigenous Archaeologies Robert W. Preucel</td>
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<td>Archaeology and Ancient World</td>
<td>ARCH 1792 S01 17745 The Archaeology of Slavery Rui Gomes Coelho</td>
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<td>Classics</td>
<td>ARCH 1900 S01 17129 Archaeology of College Hill Alex John Marko</td>
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<td>CLAS 0765 S01 16949 Witches and Vixens Sasha-Mae Eccleston</td>
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<td>East Asian Studies</td>
<td>COLT 0510K S01 17187 The 1001 Nights Elias I. Muhanna</td>
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<td>East 0500 S01 15612 Childhood and Culture in Japan Samuel E. Perry</td>
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<td>East 1090 S01 15611 Translating Korean Samuel E. Perry</td>
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<td>Economics</td>
<td>ECON 1370 S01 17427 Race and Inequality in the US Glenn C. Loury</td>
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<td>ECON 1510 S01 17484 Economic Development Aaron Mark Weisbrod</td>
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<td>EDUC 0610 S01 15805 Brown v. Board of Education Tracy L. Steffes</td>
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<td>EDUC 1520 S01 17233 Ethnic Studies &amp; Education TBD</td>
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<td>ENGL 0100F S01 17112 Devils, Demons, Do-Gooders James F. Egan</td>
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<td>ENGL 0150X S01 16044 The Claims of Fiction Olakunle George</td>
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<td>ENGL 0150Y S01 17106 Brontës and Brontëism Benjamin W. Parker</td>
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<td>ENGL 0700E S01 17103 Postcolonial Literature Olakunle George</td>
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<td>ENGL 0710X S01 17293 Black Poetics Kevin E. Quashie</td>
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<td>ENGL 1050P S01 17115 Reframing Race in Art Writing Mary-Kim Arnold</td>
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<td>ENGL 151A S01 17107 Arm. Lit. and the Civil War Drayton Nabers</td>
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<td>ETHN 1000 S01 15487 Intro to Ameron/Ethnic Studies Kevin A. Escudero</td>
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<td>HISP 1331E S01 17237 Visions &amp; Voices: Indig Mexico Iris Montero</td>
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<td>MCM 1506J-S01 17861 Representing Sexuality+Gender Teddy Pozo</td>
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<td>Modern Greek</td>
<td>MGRK 1220 S01 17446 Decolonizing Classcl Antiquity Yannis Hamilakis</td>
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<td>Music</td>
<td>MUSC 0021B S01 16701 Reading Jazz Matthew Richards McGarrell</td>
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<td>MUSC 0642 S01 17077 World Music Ensemble Martin K. Obeng</td>
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<td>MUSC 1240Z S01 17923 Public Art in Sound and Listen Erik DeLuca</td>
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<td>Philosophy</td>
<td>PHIL 0200F S01 16729 Language, Race, and Gender Anna S. Bjerman Pautz</td>
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<td>Political Science</td>
<td>POLS 1820E S01 15707 Pragmatism in Black and White Melvin L Rogers</td>
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<td>POLS 1820I S01 15732 Indigenous Politics in Hawai’i Mary L Baker</td>
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<td>POLS 1821V S01 15725 Democracy and Inequality in Am Richard O. Snyder</td>
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<td>Portuguese and Brazilian Studies</td>
<td>POBS 0280 S01 17149 Food&amp;Community-Lusophone world Patricia I. Sobral</td>
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<td>POBS 1601M S01 17539 Migrant, Politics, Race, Labor TBD</td>
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<td>Public Health</td>
<td>PHP 1070 S01 16101 Brdn of Disease in Devel Cntry Stephen T. McGarvey</td>
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<tr>
<td>PHP 1100 S01 17202 Comparative Health Care Sysyms Omar Galarraga</td>
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<td>PHP 1680I S01 16110 Disability/Health and Community Sarah E. Skeels</td>
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<td>Public Policy</td>
<td>PLCY 1703A S01 17361 Youth Politics and Culture Dario Valles</td>
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<td>Religious Studies</td>
<td>RELS 0822 S01 17326 Social Justice and the Musical Charrise M Barron</td>
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<tr>
<td>RELS 1315 S01 17325 Religious Authority in an Age Jae Hee Han</td>
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<tr>
<td>Russian</td>
<td>RUSS 1660 S01 16751 Sexuality and Revolution Fabrizio Fenghi</td>
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<tr>
<td>Sociology</td>
<td>SOC 0010 S01 16871 Introductory to Sociology Andrew M. Schrank</td>
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<td>SOC 1116 S01 17825 Criminal Courts and the Law Nicole Van Cleve</td>
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<td>SOC 1871J S01 17803 Ethics, Justice, and Transform Michael D. Kennedy</td>
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<tr>
<td>Theatre Arts and Performance Studies</td>
<td>TAPS 1610 S01 17775 Political Theatre of Americas Patricia Ybarra</td>
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</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Latin American & Caribbean Studies
LACA 0500 S01 26046 Latin America Hist/CultJourney Erica Durante

Middle East Studies
MES 1150 S01 26284 Labor in the Middle East Paul Kohlery
MES 1250 S01 26158 Palestinians and Kurds Adi Ophir

Modern Culture and Media
MCM 0150 S01 24520 Text/Media/Culture Ellen Frances Rooney
MCM 1204F S01 26165 Intro to Video Games Studies Teddy Pozo
MCM 1204K S01 25904 From Analog to Analogue Regina Longo
MCM 1506E S01 24615 Rethinking Black Visuality Tina Campt

Music
MUSC 0642 S01 25763 World Music Ensemble Martin K. Obeng
MUSC 1932 S01 25212 American Roots Music Kiri M. Miller

Political Science
POLS 0920B S01 24381 Intro. to Indigenous Pol. Mary L Baker

Portuguese and Brazilian Studies
POBS 0620 S01 25072 Map Portuges-Speak Cltr:Prtugl Leonor Simas-Almeida
POBS 0990 S01 25070 Mapping Cross-Cult. Identities Patricia I. Sobral

Public Health
PHP 1920 S01 25655 Social Determinants of Health Eric B. Loucks

Religious Studies
RELS 0056 S01 24977 Spiritual But Not Religious Daniel Vaca
RELS 0260 S01 24979 Religion Gone Wild Mark Cladis
RELS 0820 S01 24982 African American Religious Str Andre C. Willis
RELS 1325A S01 25196 Educating Bodies in Ancient Ch Jae Hee Han
RELS 1380A S01 25198 Money, Media, and Religion Daniel Vaca

Sociology
SOC 0010 S01 25560 Introductory to Sociology Michael D. Kennedy

Theatre Arts and Performance Studies
TAPS 1281O S01 25254 Acting Outside the Box Kym Moore

Urban Studies
URBN 1000 S01 24237 Fieldwrk in the Urban Community Jan Mateusz Pacewicz

First Year Seminars

Fall 2019

Africana Studies
AFRI 0110C S01 17158 Autobiogrphy Civil Rights Mvmt Francoise N. Hamlin

Anthropology
ANTH 0066D S02 16812 Who Owns the Past? Patricia E. Rubertone

Archaeology and Ancient World
ARCH 0770 S01 17121 Archaeology of Eating&Drinking Yannis Hamilakis

Biology
BIOL 0100 S01 15739 Living Bio at Brown and Beyond Katherine F. Smith
BIOL 0150A S01 15776 Tech/Analys DNA-based Biotech Jody Hall
BIOL 0190E S01 15740 Botanical Roots/Mod Medicines Fred V Jackson
BIOL 0190F S01 15742 Darwinian Medicine Marc Tatari
BIOL 0190P S01 15778 Pride/Prej Dev of Sci Theories Stephen L. Heifand
BIOL 0190R S01 15662 Phage Hunters, Part I Sarah E. Taylor
BIOL 0190U S01 15779 The Lives of Plants Peter Heywood

Chemistry
CHEM 0080B S01 16284 Molecular Structurs in Chem/Bio Paul Gregory Williard

Classics
CLAS 0210B S01 16956 Death in Ancient Greece Pura Nieto Hernandez

Cognitive, Linguistic and Psychological Sciences
CLPS 0050A S01 16606 Computing as in Brains/Computs James A. Anderson

Comparative Literature
COLT 0510F S01 16527 Fidel Castro and Che Guevara Esther K. Whitfield
COLT 0610D S01 16604 Rites of Passage Arnold Louis Weinstein
COLT 0710S S01 15961 New Worlds Stephanie Merrim

East Asian Studies
EAST 0500 S01 15612 Childhood and Culture in Japan Samuel E. Perry

Education
EDUC 0410A S01 15865 New Faces, New Challenges Andrea Flores

English
ENGL 0150C S01 16038 The Medieval King Arthur Elizabeth Johnson Bryan
ENGL 0150D S01 16040 Shakespeare's Present Tense Stephen Merriam Foley
ENGL 0150X S01 16044 The Claims of Fiction Olakunle George
ENGL 0150Y S01 17106 Brontès and Brontëism Benjamin W. Parker
ENGL 0151A S01 17110 Hitchcock! Stuart Burrows

Environmental Studies
ENVS 0070C S01 16515 Transcending Transpn Impacts Kurt Teichert

Ethnic Studies
ETHN 0090A S01 15706 The Border/La Frontera Evelyn Hu-Dehart

French Studies
FREN 0720G S01 17049 L’art de la nouvelle Thangam Ravindranathan

Geological Sciences
GEOL 0160E S01 15588 Volcanos:Wndws into Deep Earth Alberto Saal

German Studies
GRMN 0750F S01 16308 Historical Crime Fiction Thomas W. Knesche

Hispanic Studies
HISP 0710B S01 16319 Hisp Culture Through Cinema Mercedes Vaquero

History
HIST 0522G S01 15988 The Dutch Golden Age Harold J. Cook
HIST 0523P S01 16256 The First World War Benjamin Hein
HIST 0551A S01 16034 Lincoln in History and Culture Michael Vorenberg
HIST 0556A S01 15986 Sport in American History Howard P. Chudacoff
HIST 0557C S01 16013 Narratives of Slavery Emily A Owens
HIST 0580M S01 16006 Age of Revolutions, 1760-1824 Jeremy R. Mumford

Judaic Studies
JUDS 0050M S01 15812 Judaism and Christianity Adam J Teller

Literary Arts
LITR 0100A S01 15662 Introduction to Fiction Veritas Katharina Gassmann
LITR 0100B S01 15663 Introduction to Poetry Abra Conn
LITR 0510C S02 17773 The Pleasures of the Text Carole Maso
LITR 0710S S01 15675 Writers on Writing Andrew E. Colarusso

Music
MUSC 0021B S01 16701 Reading Jazz Matthew Richards McGarrell
MUSC 0021J S01 16698 Stephen Sondheim and the Ameri Dana A. Gooley

Physics
PHYS 0100 S01 16569 Nature/Meaniing Sc Explanation Sylvester James Gates

Political Science
POLS 0820V S01 15576 Land and Conflict Jordan N. Branch
### Portuguese and Brazilian Studies

**POBS 0810 S01 16634** Cross-Cultural Identities Patricia I. Sobral  
**POBS 0910 S01 16641** On the Dawn of Modernity Onesimo T. Almeida  

### Public Health

**PHP 0050 S01 17009** Pain and the Human Condition Nisha Gupta Trivedi  

### Religious Studies

**RELS 0090K S01 16494** Christmas in America Daniel Vaca  
**RELS 0090M S01 16495** Islam, Violence and Media Nancy Khalek  

### Russian

**RUSS 0320E S01 15583** Crime and Punishment Vladimir Golstein  

### Sociology

**SOC 0300D S01 16873** Who Am I? Gregory C. Elliott  
**URBN 0230 S01 15504** Urban Life in Providence Rebecca Louise Carter  

### Spring 2020

### Anthropology

**ANTH 0066N S01 25444** Peoples, Cultures Greater Mex Matthew C. Gutmann  

### Biology

**BIOL 0150C S01 26270** Intro to Ethnopharmacology Fred V Jackson  
**BIOL 0150D S01 24487** Techeq in Regenerative Mdcne Toni-Marie Achilli  
**BIOL 0190S S01 24327** Phage Hunters, Part II Sarah E. Taylor  

### Classics

**CLAS 0210T S01 25534** Travels in Greece Johanna M. Hanink  

### Czech

**CZCH 0320A S01 24285** Czech Animation Masako Ueda Fidler  

### East Asian Studies

**EAST 0650 S01 24703** Lang, Cultr, + Society: Korea Hye-Sook Wang  

### Engineering

**ENGN 0610 S01 24814** Crssng Consumr Chasm by Desgn Richard D. Fleeter  
**ENGN 0620 S01 24484** Cradle of Inequality David E Rangel  

### French Studies

**FREN 0820B S01 25925** Qu’est-ce que l’identité? David Wills  

### History

**HIST 0523M S01 25626** Welfare States Robert O. Self  
**HIST 0656A S01 24723** Hist Intercollegiate Athletics Howard P. Chudacoff  

### Political Science

**POLS 0920C S01 17521** Media and Democracy Rachel Hyatt Meade  
**POLS 0920B S01 24381** Intro. to Indigenous Pol. Mary L Baker  

### Portuguese and Brazilian Studies

**POBS 0990 S01 25070** Mapping Cross-Cult. Identities Patricia I. Sobral  

### Writing-Designated Courses

**AMST 1700F S01 16830** American Publics Susan Smulyan  
**AMST 1905O S01 15708** Readings Histories of Violence Monica M. Martinez  

### Anthropology

**ANTH 0300 S01 16815** Culture and Health Katherine A. Mason  
**ANTH 1300 S01 16820** Anthropology of Addictions Irene Glasser  
**ANTH 1940 S01 16826** Ethnographic Research Methods Lina M. Fruzzetti  

### Archaeology and Ancient World

**ARCH 0407 S01 17126** Hadrian’s Wall + Roman Britain Tyler V Franconi  
**ARCH 0770 S01 17121** Archaeology of Eating&Drinking Yannis Hamilakis  
**ARCH 1792 S01 17745** The Archaeology of Slavery Rui Gomes Coelho  
**ARCH 1900 S01 17129** Archaeology of College Hill Alex John Marko

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Russian
RUSS 0320E S01 15583 Crime and Punishment Vladimir Golstein
RUSS 1290 S01 16926 Russian Lit in Translation I Diana Dukhanova
RUSS 1340 S01 15582 The Russian Novel Michal Oklot
RUSS 1550 S01 15585 Beyond The Kremlin.Rus Coll+Pol fabrizio Fenghi
RUSS 1650 S01 16751 Sexuality and Revolution Fabrizio Fenghi
RUSS 1860 S01 15588 Chekhov Svetlana Evdokimova
RUSS 1885 S01 16811 Russian Avant-Garde Michal Oklot

Science, Technology, and Society
STS 0700B S01 16259 Science and Social Controversy Jeffrey S. Poland
STS 1900 S01 16258 Sr Sem in Science and Society Jeffrey S. Poland

Sociology
SOC 0300D S01 16873 Who Am I? Gregory C. Elliott
SOC 1010 S01 16875 Classical Sociological Theory Paget Henry
SOC 1440 S01 16893 Intimate Violence Gregory C. Elliott
SOC 1620 S01 16895 Globalization/Social Conflict Patrick G. Heller
SOC 1870K S01 17644 Demographics and Development David P. Lindstrom
SOC 1950 S01 16896 Senior Seminar Carrie E. Spearin

South Asian Studies
SAST 0410 S01 17921 Food, Religion and Politics Finnian M. Moore-Gerety
SAST 0526 S01 17922 This Whole World is OM Finnian M. Moore-Gerety

Theatre and Performance Studies
TAPS 0100 S01 16225 Playwriting I Kyla Searle
TAPS 0100 S02 16243 Playwriting I Elmo Terry-Morgan
TAPS 1380 S01 15886 Mise en Scene Spencer Golub
TAPS 1600 S01 17869 Dramaturgy Patricia Ybarra

University Courses
UNIV 1110 S01 15528 Problem Solving Fellow Christina Smith

Urban Studies
URBN 0210 S01 15661 The City: Intro to Urban Study Samuel Zipp
URBN 1870D S01 15461 Downtown Development Robert E. Azar
URBN 1870J S01 15469 Globalization/Social Conflict Patrick G. Heller
URBN 1871B S01 17536 Berlin: Global Metropolis Katharina M Galor
URBN 1870D S01 15461 Downtown Development Robert E. Azar
URBN 1870J S01 15469 Globalization/Social Conflict Patrick G. Heller

Visual Art
VISA 1800C S01 16840 Honors Seminar Paul Myoda
VISA 1800G S01 17223 Junior Seminar in Visual Art Theresa Claire Ganz

Spring 2020

African Studies
AFRI 0990 S01 25745 Black Lavender+Gay+Lesbian Plays Elmo Terry-Morgan
AFRI 1100X S01 25748 Black Speculative Fiction Matthew Gutier
AFRI 1360 S01 25747 Knowledge, Texts + Methodology Brian W E Meeks
AFRI 1930 S01 25749 Race Difference Biomedical Res Lundy Braun

American Studies
AMST 0190Q S01 25907 Life on U.S. Highway Margins Samuel A Coren
AMST 0190Q S01 25948 Archival Interventions Kristen Anna Marie Iemma
AMST 0192E S01 26156 20th C. U S Borderlands Nicole Gloria Sintetos
AMST 1611A S01 25949 20thC US immigrant Ethnic Lit Richard Alan Meckel
AMST 1700N S01 25372 Public Memory Beverly Haviland
AMST 1900P S01 24621 Essaying Culture Ralph E. Rodriguez
AMST 1902W S01 26234 Queering Oral History Virginia Cutler Thomas

Anthropology
ANTH 0100 S01 25445 Intro to Cultural Anthropology TBD
ANTH 1242 S01 25449 Bioethics and Culture Katherine A. Mason

Archaeology and Ancient World
ARCH 0250 S01 26298 Intimate Stories + Landscapes TBD

Assyriology
ASYR 1725 S01 24627 Science in Ancient Iraq John M. Steele

BioMed-Neuroscience
NEUR 1040 S01 24729 Introduction to Neurogenetics Karla Kaun
NEUR 1540 S01 24731 Learning and Memory Monica Linden
NEUR 1600 S01 24733 Experimental Neurobiology John J. Stein

Biology
BIOI 0160 S01 24421 Plants, Food, and People Peter Heywood
BIOI 0285 S01 24443 Inquiry in Biochemistry Kristina Luisa Cohen
BIOI 0285 S02 24444 Inquiry in Biochemistry Kristina Luisa Cohen
BIOI 0400 S01 24923 Biological Design Sharon M. Swartz
BIOI 0430 S01 24410 Evolution of Plant Diversity Fred V Jackson
BIOI 0940E S01 2476 Precision or Privileged Med Robert K. Campbell

Business, Entrepreneurship and Organizations
BEO 1940A S01 25525 BEO Capstone II Brendan C. McNally
BEO 1940B S01 25526 BEO Capstone II Steven F. Petteruti

Chemistry
CHEM 1450 S01 24786 Advanced Organic Chemistry Christopher Takakazu Seto

Classics
CLAS 0010 S01 25528 The Greeks Stephen E. Kidd
CLAS 0210T S01 25534 Travels in Greece Johanna M. Hanink
CLAS 0660 S01 25558 The World of Byzantium Byron D MacDougall
CLAS 1120 S01 25540 Epic Poetry: Homer to Lucan Pura Nieto Hernandez
CLAS 1120U S01 25533 Presidents/Western Tradition Joseph Michael Pucci

Cognitive, Linguistic and Psychological Sciences
CLPS 1180S S01 26225 Animal Languages Andrea Megela Simmons
CLPS 119S S01 25048 Laboratory in Genes + Behavior Kevin G. Bath

Comparative Literature
COLT 0510P S01 25815 Reading the Renaissance Stephen Merriam Foley
COLT 0710Z S01 26118 Comedy from Athens to Hollywood Molly Illeru
COLT 0711H S01 25813 The Arabic Novel, from Realism Emily L Drumsta
COLT 1310M S01 25814 The Literature of Muslim Spain Elias M. Muhanna
COLT 1310N S01 25235 Global Modernism and Crisis TBD
COLT 1422J S01 25812 Global Detective Fiction Emily L Drumsta
COLT 1422K S01 25811 Faulkner Arnold Louis Weinstein
COLT 1440W S01 25833 Patterns of Migrations / Peopl Aniella Azoulay
COLT 1440X S01 26047 Shéhérazades: the "Oriental" Edwige Laure Gabrielle Crucifix
COLT 1610V S01 25903 Heidegger Gerhard Richter
COLT 1813M S01 25922 Making a List Kenneth Haynes
COLT 1814U S01 25809 Politics of Reading Peter Szendy

Computer Science
CSCI 1800 S01 24999 Cybersec and Info Relations John E. Savage

Contemplative Studies
COST 0037 S01 25049 Sensing the Sacred Finnian M. Moore-Gerety
COST 0100 S01 25208 Intro to Contemplative Studies Harold D. Roth
COST 0525 S01 25378 History & Princ of Yoga Finnian M. Moore-Gerety
COST 1705A S01 26051 Principles/Practice Contemplative Studies Harold D. Roth

Czech
CZCH 0320A S01 24285 Czech Animation Masako Ueda Fidler

Economics
ECON 1400 S01 25469 The Economics of Mass Media Jesse M. Shapiro
ECON 1430 S01 26276 The Economics of Social Policy Emily F. Oster
ECON 1486 S01 25422 Economic Analysis of Political Daniel J. D’Amico

Education
EDUC 1150 S01 24430 Education,Economy,School Reform John H. Tyler
EDUC 1650 S01 24862 Policy Implementation in Education Jonathan E Collins

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### Middle East Studies
- MES 1150 S01 26284 Labor in the Middle East Paul Kohlbry
- MES 1250 S01 26158 Palestinians and Kurds Adi Ophir

### Modern Culture and Media
- MCM 0150 S01 24520 Text/Media/Culture Ellen Frances Rooney
- MCM 1204F S01 26165 Intro to Video Games Studies Teddy Pozo
- MCM 1204K S01 25904 From Analog to Analogue Regina Longo

### Philosophy
- PHIL 0010 S01 25345 The Place of Persons David P. Christensen
- PHIL 0380 S01 25553 Early Modern Philosophy Charles Larmore
- PHIL 0500 S01 25347 Moral Philosophy Nomy Arpaly
- PHIL 0560 S01 25348 Political Philosophy David Estlund
- PHIL 0880 S01 25366 Ethical Themes Amer Short Story Felicia Nimue Ackerman
- PHIL 1750 S01 25350 Epistemology Christopher S. Hill

### Physics
- PHYS 0560 S01 25132 Experiments in Modern Physics Jia Li
- PHYS 1560 S01 25139 Modern Physics Laboratory Vesna F Mitrovic
- PHYS 1600 S01 25142 Computational Physics Kemp W Plumb

### Political Science
- POLS 0920B S01 24381 Intro. to Indigenous Pol. Mary L Baker
- POLS 1820D S01 24338 Civil Liberties/Moral, Political Corey L. Brettschneider
- POLS 1820H S01 24332 Contraband Capitalism Peter R. Andreas
- POLS 1822I S01 24340 Geopolitics of Oil and Energy Jeffrey D. Colgan
- POLS 1823E S01 24376 Global Justice John O. Tomasi
- POLS 1823H S01 26159 Public Opinion Katherine Tate
- POLS 1824G S01 24376 Global Justice John O. Tomasi
- POLS 1824U S01 24376 Global Justice John O. Tomasi
- POLS 1920 S01 24363 Senior Honors Thesis Preparation Wendy J. Schiller

### Portuguese and Brazilian Studies
- POBS 0400 S01 25066 Writing + Speaking Portuguese Naomi Parker
- POBS 0620 S01 25072 Map Portugues-Speak Ctr/Portuguese Leonor Simas-Almeida
- POBS 0990 S01 25070 Mapping Cross-Cultural Identities Patricia I. Sobral
- POBS 1080 S01 25071 Brazil: Language/Theater/Culture Patricia I. Sobral

### Public Health
- PHP 0030 S01 24914 Health of the Hispanic/Asian Community Timothy M. Empkie

### Public Policy
- PLCY 1822 S01 25684 Social Policy and Justice TBD

### Religious Studies
- RELS 0037 S01 26050 Sensing the Sacred Finnian M. Moore-Gerety
- RELS 0056 S01 24977 Spiritual But Not Religious Daniel Vaca
- RELS 0525 S01 24981 The History and Practice of Yoga Finnian M. Moore-Gerety
- RELS 0820 S01 24982 African American Religious Studies Andre C. Willis
- RELS 1000 S01 24983 Methods in Religious Studies Stephen S. Bush
- RELS 1325A S01 25196 Education in the Christian Tradition Susan Ashbrook Harvey
- RELS 1430 S01 25199 Buddhist Classics Janine T Anderson Sawada
- RELS 1500 S01 25200 Prophets of the Ancient World Jan Mateusz Pacewicz
- RELS 1610 S01 25202 Sacred Sites: Law, Politics, Nathanial A. Berman
- RELS 1705A S01 26053 Principles/Pract Conteporay Studies Harold D. Roth

### Russian
- RUSS 1300 S01 24282 Russian Lit in Translation II Vladimir Golstein
- RUSS 1330 S01 24291 Soviet Culture Fabrizio Fenghi
- RUSS 1440 S01 24292 Imagining Moscow Fabrizio Fenghi

### Science, Technology, and Society
- STS 1000 S01 26038 Theories and Controversies Joan L. Richards

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
AFRI 0980. Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre
An interdisciplinary approach to the study of plays that address the identities and issues of black gay men and lesbians and offers various perspectives from within and without the black gay and lesbian artistic communities. Focuses on analysis of unpublished titles. Also includes published works by Baraka, Bullins, Corbitt, Gibson, Holmes, West, and Primo-Afro Homos. Some evening screenings of videotapes. Enrollment limited to 20.
Fall AFR0980 S01 25745 TTh 1:00-2:20(08) (E. Terry-Morgan)

AFRI 1020C. The Afro-Luso-Brazilian Triangle.
Examines three historical components of the South Atlantic in terms of history, culture, and contemporary political and economic consequences. European colonialism in Africa and Brazil constitutes the baseline for this exploration, but the long and tardy nature of Portuguese colonialism in Africa in comparison with other European colonial powers, especially in its post-World War II manifestations, is our starting point. Enrollment limited to 40.
Spr AFR1020C S01 25742 Th 4:00-6:30(17) (A. Dzidzienyo)

AFRI 1020D. Race, Rights and 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 17196 Th 9:00-10:20(02) (K. Perry)

AFRI 1030. Contesting the Carceral State.
This course introduces students to the study of crime and justice through Black, feminist, queer and prison abolitionist frameworks, with a particular focus on narratives by people of African descent in the U.S. since 1965.
Fall AFR1030 S11 17145 W 5:40-6:10PM(12) (L. Biggs)

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.
Spring AFR1050A S01 25776 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).
Spring AFR1050D S01 25778 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).
Spring AFR1050E S01 25779 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.
Spring AFR1060E S01 25743 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 17143 M 3:00-5:30(05) (D. Ayobade)
AFRI 1100X. Black Speculative Fiction: World-Making and Alternative Universes, Science Fiction and Fantasy. This class surveys the genre, including the work of George Schuyler, Nalo Hopkinson, Samuel R. Delany, N.K. Jemisin, Octavia Butler, Coslón Whitehead, and Tananarive Due, along with everything related, from comic books to album covers to filmic re-writings of canonical science fiction and fantasy works. The goal is to understand the history of the genre, its relationship to histories of anti-blackness and ideologies of black liberation, and its contributions to speculative fiction more broadly.

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.

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.

AFRI 1190. Haiti: A New World, A Free World. Course examines the dual Haitian Revolution as a pivotal moment in the making of the modern world. It reviews the various historical interpretations of Haitian events, examines how these events contribute to or trouble our ideas about modern politics and notions of freedom as well as our conceptions of revolution. Course engages in these issues by working through three archives: Vodou Religion; The Art of the Revolution and the conventional historiography about the revolution, and will be tied to a joint Brown/RISD exhibition on Haitian Art. Enrollment limited to 15 juniors/seniors concentrating in Africana Studies, Visual Art, History; 15 RISD students.

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.

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.

AFRI 1920. Health Inequality in Historical Perspective. Seminar takes a historical perspective to explore causes of health inequality in the US. Draws on studies from the 19th-century-present. Examines socio-political and economic context of health/disease, focusing on how race, class, and gender shape the experience of health, disease causality, and public health responses. Includes health consequences of immigration, incarceration, race-based medicine, the Chicago heatwave, and Katrina. Enrollment restricted to 20, second and third-year students.

AFRI 1930. Race, Difference and Biomedical Research: Historical Considerations. This advanced seminar places the current debate over race, health, and genetics in historical context. An overarching goal is to understand how the social world informs the scientific questions we ask, design of research studies, and interpretation of findings. How have the theories and practices of biomedical science and technology produced knowledge of “race” and racial difference historically? How does race relate to gender and class? What are the implications of this debate for understanding health inequality? Previous coursework in Africana Studies preferred. Enrollment limited to 20; instructor permission.

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.

AFRI 2001. Theories of Africana Thought: Intellectual History and Critical Theory. 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.

AFRI 2102. Interdisciplinary Methods and Africana Studies. This graduate seminar focuses on interdisciplinary methodology and Africana Studies. The seminar explores how students and scholars in Africana Studies use interdisciplinary methods developed in the social sciences and the humanities in novel and innovative ways. Students will critically examine key methodological issues in Africana Studies and how and in what ways these issues are similar to and differ from such disciplines as economics, history, sociology, and literature. Prerequisite: a prior undergraduate or graduate level methods in Humanities or Social Sciences. Enrollment limited to 20.

AFRI 2300. Black Critique: Black Critical Theory - History, Literature, Politics, the Human Sciences of Being. This class is about re-figuring black radical thought as a field of interdisciplinary critical theory. Working with the corpus of writers like Sylvia Wynter, WEB Du Bois and Frantz Fanon the course will seek to grapple with the practices, questions and ideas of Black thinkers around questions of the human, the figure of the black fugitive, the significance of enslaved labor to the capitalism, Black internationalism, black feminism and the ways in which questions of history have been reconfigured in Black thought. The course is an reading intensive one and is open to all graduate students.

AFRI 2450. Exchange Scholar Program. Fall AFRI2450 S01 15246 Arranged "To Be Arranged"

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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  15247  Arranged  'To Be Arranged'
Spr  AFRI2970  S01  24150  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 residency requirement and are continuing research on a full time basis. 
Fall   AFRI2990  S01  15248  Arranged  'To Be Arranged'
Spr  AFRI2990  S01  24151  Arranged  'To Be Arranged'

AFRI XLIST. Courses of Interest to Concentrators in Africana Studies.  
Fall 2019  
The following courses may be taken for concentration credit. Please see the sponsoring department for the time and location of each course.

English
ENGL 0700E Postcolonial Literature
ENGL 1711N Monsters in Our Midst: The Plantation and the Woods in Trans-American Literature

Political Science
POLS 1335 Slavery and Freedom: Selections from African American Political Thought
POL S 1820E Pragmatism in Black and White: Race, Domination and Democratic Faith

Religious Studies
RELS 0822 Social Justice and the Musical Afrofuture

American Studies
American Studies

This course explores the history, legacy, and material presence of U.S. highways from the mid-twentieth to the present. Bridging diverse fields and ways of knowing, from cultural history to road ecology, it endeavors to de-familiarize a ubiquitous feature of life and landscape in the contemporary United States, the federal highway system, and invites students to critically re-encounter the same.
We will practice seeing, hearing, and feeling the lively traces of human and multi-species habitation in our midst. And we will consider the effects of interstate roads across time and space; on societies, ecologies, and landscapes.
Spr  AMST0190QCS01  25907  TTh  9:00-10:20(11)  (S. Coren)

AMST 0190Q. Archival Interventions: Tracing Knowledge, Power, and Memory through the Archives.
This course will examine the ways that power, knowledge, and memory are instantiated through a variety of record keeping practices. Through an exploration of analog and digital storage media, the institutions in which they reside, and an engagement with social justice approaches, feminist theory and queer theory, this course will seek to answer the questions: how are categories formed and what are the social ramifications of these choices? How do records enter certain institutions? Who is represented, in what ways, and who is excluded? This course will include guest lectures and field trips to local archives and libraries.
Spr  AMST0190QCS01  25948  TTh  6:40-8:00PM(18)  (K. lemma)

AMST 0192E. 20th Century American Borderlands Place, Politics, and Memories of Transition.
20th Century American Borderlands: Place, Politics, and Memories of Transition interrogates the shifting relationships among constructions of borders, race, and citizenship in the United States. This course offers a comparative analysis of the ways in which many ethnic groups in the 20th century encountered—and challenged—various geographic and political borderlands. The first half of the course offers a history of the Mexican and Canadian borders; the second half considers sites of “ambiguous belonging” within the United States. Students will consider categories of the “citizen,” the “refugee” and the “immigrant,” and how each is represented within contemporary U.S. contexts. WRIT DIAP
Spr  AMST0192ES01  26156  TTh  2:30-3:50(11)  (N. Sintetos)

This course introduces the study of the design, work, material culture and history through the construction of a traditional workboat, a Maine peapod. As the class builds the boat we’ll gain a hands-on understanding of issues of design, skill, and workmanship. At the same time, we’ll do historical research and visit museums to gain insight into the history of small craft and their builders and users from the nineteenth century to the present, and also consider philosophical issues of tradition, creativity, and knowledge in engineering and making. Weekly writing assignments, including a journal, will connect hands-on work and research.
Fall  AMST1220  S01  17547  WF  10:00-12:00(14)  (S. Lubar)

AMST 1600H. Monsters in our Midst: The Plantation and the Woods in Trans-American Literature (ENGL 1711N).
Interested students must register for ENGL 1711N.
Fall  AMST1600H-S01  17459  Arranged  'To Be Arranged'

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.
Spr  AMST1611AS01  25949  TTh  2:30-3:50(11)  (R. Meckel)

AMST 1700F. American Publics.
Americans worry about the quality of their civic life and fear its decline. This junior seminar examines an important concept, the public sphere, in its popular and political dimensions as well as the challenges to the boundaries of American public life. Who is a citizen and thus eligible to participate? The course pays particular attention to concerns about the impact of new media—print, broadcasting, the internet. Assignments will take students into the community to think about social, cultural, and political publics. Not open to first year students or sophomores. Enrollment limited to 20.
Fall  AMST1700FS01  16830  M  3:00-5:30(05)  (S. Smulyan)

AMST 1700N. Public Memory: Testimony, Memorial, Ritual.
This seminar explores theories and practices of public memory by studying three related topics and media. Questions about the relation of history and memory are pursued by reading verbal testimony. Questions about commemoration are developed by looking at material objects and public spaces. Questions about embodied memory are explored by witnessing trauma, performance, and ritual. Readings will include Freud, Nora, Derrida, Halbwachs, Laub, Savage, Connerton, Taylor and Young. Rhode Island will provide our field for understanding how public memory works in verbal, material, and embodied signs of the past and present.
Spr  AMST1700NS01  25372  W  3:00-5:30(10)  (B. Haviland)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
**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/N C

*Spr AMST1800 S01 24323 F 3:00-5:30(15)*
(B. Haviland)

**AMST 1800A. The Cultural and Social Life of the Built Environment (URBN 1870N).**
Interested students must register for URBN 1870N.

*Spr AMST1800A S01 25960 Arranged "To Be Arranged"*

**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.

*Spr AMST1900FS01 24621 TTh 1:00-2:20(08)*
(R. Rodrigue Z)

**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 AMST1901BS01 16358 TTh 1:00-2:20(08)*
(R. Rodrigue Z)

**AMST 1901M. American Roots Music (MUSC 1932).**
Interested students must register for MUSC 1932.

*Spr AMST1901M S01 26041 Arranged "To Be Arranged"*

**AMST 1902W. Queering Oral History: Theory and Practice of Building Alternative Archives.**
In this course, students will engage the theory and practice of oral history with an emphasis on queer and trans frameworks. Students will learn about the history and importance of oral history as an alternative method, gain an understanding of LGBTQ history in the U.S., and research LGBTQ oral history projects. In practice, students will train in oral history methods and learn how to build accessible archives for oral histories. The final project of this course involves conducting oral histories with LGBTQ Providence and Brown community members to help build queer archives at Brown and in Providence.

*Spr AMST1902WS01 26234 T 4:00-6:30(16)*
(V. Thomas)

**AMST 1902X. Social Memory and the 1960s: From Nixon to Nostalgia.**
From the Civil Rights movement to the Vietnam War, women's liberation to Woodstock, the 1960s was a time of political and cultural turbulence in the US. This class explores the ways in which the decade persists in American collective memory, and how its legacies have become embodied in modern day texts, images, music, memorials, and rituals. Students will use the interdisciplinary methods of memory studies to address these questions, analyzing both primary and secondary source material. Those interested in sociology, anthropology, and history will find new approaches to enduring questions about how societies remember and forget crucial events and experiences.

*Fall AMST1902XS01 17907 TTh 9:00-10:20(02)*
(A. Anderson)

**AMST 1903I. Museum Histories.**
Museums collect and display art and artifacts not only to preserve culture heritage, but also to educate, engage, and entertain. This course examines the history of museums—of art, history, anthropology, natural history, science and technology—to understand their changing goals and their changing place in American society. It also considers the changes within museums, in the work of curation, conservation, education, and social engagement. Students will read museum history and theory, engage with museum archives and other primary sources, and produce a research paper or a digital or public project.

*Fall AMST1903I S01 16476 TTh 10:30-11:50(13)*
(S. Lubar)

**AMST 1903Z. Shrine, House or Home: Rethinking the House Museum Paradigm.**
This seminar will examine historic house museums within the context of American culture from the founding of Mount Vernon in 1853 to their present decline in popularity and relevance. Utilizing sources from a variety of disciplines including literature, women's and family history, and museum and preservation theory and practice, students will re-examine the prevailing historic house museum paradigm and develop interpretation plans for house museums in the Providence area. Enrollment limited to 20. If oversubscribed, priority is given to students in the Public Humanities Programs and Department of American Civilizations. No prerequisites.

*Spr AMST1903Z S01 24630 M 3:00-5:30(13)*
(R. Potvin)

**AMST 1904H. The Teen Age: Youth, Society and Culture in Early Cold War America.**
An interdisciplinary and multimedia exploration of the experiences, culture, and representation of youth in the United States from the end of World War II through the beginning of the Vietnam War. Enrollment limited to 20 sophomores, juniors and seniors.

*Spr AMST1904H S01 25950 M 3:00-5:30(13)*
(R. Meckel)

**AMST 1905O. Reading and Righting Histories of Violence.**
This seminar proposes "histories of violence" as a useful framework to interrogate the varied forms of violence that constitute Western liberal modernity. These forms include systems of state power and imperial practices; subjective violence through raced, gendered, and sexualized hierarchies; and narrative violence that prevents histories and voices from emerging through the erasure of archives and narrative silencing. Course readings consider ongoing local and transnational struggles to reckon with the violent histories of slavery, empire, colonialism, nationalism, and democracy. They offer interdisciplinary models for researching and narrating these histories. Class discussions with consider avenues for reckoning with histories of violence.

*Fall AMST1905O S01 15708 M 3:00-5:30(05)*
(M. Martinez)

**AMST 1906A. History of Skill.**
We speak of skilled and unskilled work; but what is skill? In this course we will look for skill captured in embodied knowledge, in the words, images, and videos of instruction manuals, and in the material culture of work. We will consider the context of skills: changing ideas about skill throughout American history and the ways in which race, gender, and ethnicity have shaped the definition of skill and the nature of skilled work. Research based in primary sources, including students' own skills, will lead to historical or ethnographic essays.

*Spr AMST1906A S01 24913 TTh 10:30-11:50(09)*
(S. Lubar)

**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.

*Spr AMST1906R S01 25373 Th 4:00-6:30(17)*
(K. Escudero)

**AMST 1970. Independent Reading and Research.**
Required of all honors candidates in the senior year. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. S/N C

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### AMST 2220P. Diaspora and Indigeneity

This graduate seminar explores the interrelated concepts of diaspora and indigeneity. Drawing on theoretical frameworks from American Studies, history, anthropology, and law, students will explore the relationship between diasporic and indigenous communities in the United States, Canada, Middle East, Caribbean and Pacific Ocean. In the process, conversations will focus on how struggles for migrant justice can take place while critically engaging with the settler colonial legacies of many nation-states moving towards a politics of collective liberation.

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### AMST 2220Q. The Homo Sapiens at the End of the World; or, Readings in Race Theory

How was race invented in the Americas? How can a piece of land be raced? Why might we use the term “genre” over “gender”? Which comes first: racial equality or environmental catastrophe? Shall we consider the four elements instead of universal time? In this seminar, we dive into these and other questions through readings on theories of race in the Americas, paying attention to the reverberations of colonialism, U.S. imperialism, slavery, and so on. Visual and performance art, music, and film add texture to the course. Theorists include Sylvia Wynter, Josie Salaíña, Anna Tsing, and Fred Moten.

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### AMST 2220R. Popular Music Studies

This graduate seminar offers a critical exploration of interdisciplinary scholarship on popular music and related cultural formations. Class readings emphasize ethnographic approaches grounded in American Studies, media studies, and ethnomusicology, alongside relevant bodies of critical theory. We will consider production, circulation, and reception practices, and the ongoing erosion of the barriers separating these domains. Case studies foreground popular music scenes in the Americas and the UK—especially Afro-diasporic and Latinx genres and practices—but seminar discussions and student projects will range beyond these areas. Major topics include musical subcultures; transnational circulation; club/dance music; listening practices; and genre-oriented units on hip-hop and norteño/Tejano.

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### AMST 2540. Methods in Public Humanities

This course surveys public humanities work, including cultural heritage preservation and interpretation, museum collecting and exhibition, informal education, and cultural development. It also provides an overview of the contexts of that work in nonprofit organizations, including governance, management, and development.

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### AMST 2635. Ethical in Public: Humanities as Moments of Encountering

This course will introduce students to how these latter ideas might inform “ethical praxis” in Public Humanities, offering three case studies - a Jewish cemetery in Vienna, and two current projects in Providence - as examples of ethically-informed public-facing work.

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For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
The course offers an opportunity for RISD and Brown students to work together to understand the growing interdisciplinary field of public art. We will explore the potential of working in the public realm as artists and/or arts administrators. Topics include: pivotal events and artworks that formed the history of public art from the early 20th century to the present; approaches to site-specificity; ideas of community and audience; current debates around defining the public and public space; temporary vs. permanent work; controversies in public art: memorials, monuments, and anti-monuments; case studies; public art administration models, among others.

Fall AMST2653 S01 16344 M 1:30-5:30(07) "To Be Arranged"

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.

Fall AMST2655 S01 15497 M 3:00-5:30(05) (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 2680. Semester Practicum in Public Humanities. 
Practicums in public humanities provide practical, hands-on training that is essential for careers in museums, historic preservation, and cultural agencies. Students will work with faculty to find appropriate placements and negotiate a semester’s or summer work, in general a specific project. Available only to students in the Public Humanities M.A. program.

Fall AMST2680 S01 17643 Arranged (R. Potvin)
Spr AMST2680 S01 26075 Arranged (R. Potvin)

AMST 2685. Critical Approaches to Architectural Preservation and Cultural Heritage. 
This course examines the modern fields of preservation and cultural heritage from a historical and critical point of view to better understand their formation, evolution, current condition and the issues integral to their future. We explore such thorny topics as the “invention” of tradition and the relationship between heritage programs and nationalism, the evolution of the global cultural heritage industry, the story of preservation institutions in the United States and abroad, the rise of cultural heritage crimes in conflict zones, public history and memorials at “sites of conscience,” and the emergence of digital preservation and “experimental preservation.”

Spr AMST2685 S01 24631 TTh 1:00-2:20(08) (M. Brown)

AMST 2694. Decolonizing Public Humanities: Intersectional Approaches to Curatorial Work + Community Organizing. 
This course will decenter experiences and cultural expectations attendant to whiteness, cis-maleness, able-bodiedness, heterosexuality, and middle/upper-classness in the public humanities, and thereby explore the contemporary problems and possibilities of intersectional approaches in the field. What do contemporary paradigms of “diversity,” “public engagement,” and “cultural organizing” have to teach us about effective and ethical public humanities approaches? Do different, multiply marginalized communities of affinity practice entirely different public humanities? How are cultural interventions changing to accommodate the demands of an increasingly segmented public sphere?

Fall AMST2694 S01 16118 T 4:00-6:30(09) "To Be Arranged"

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 residency requirement and are continuing research on a full time basis.

Spring AMST2990 S01 15250 Arranged "To Be Arranged"
Spr AMST2990 S01 24152 Arranged "To Be Arranged"

Ethnic Studies

ETHN 0090A. The Border/La Frontera. 
We will examine the historical formation, contemporary reality and popular representation of the U.S.-Mexico border from a bilingual (English-Spanish), multicultural (U.S., Mexican, and Latino), and transnational perspective within the framework of globalization. We will explore the construction of border communities, lives and identities on both sides of the international divide, and pay particular attention to the movement of peoples in both directions. We will read materials, watch films, and conduct class discussions in English and Spanish. Comfort and reasonable proficiency in Spanish is required, but native command is not necessary. Enrollment limited to 19 first year students.

Fall ETHN0090AS01 15706 M 3:00-5:30(05) (E. Hu-Dehart)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ETHN 0190A. Islands of Empire: Sounds and Silences.

A mural painted on a cement wall in Old San Juan, Puerto Rico greets you with, “Welcome to the oldest colony.” In five words, this small portion of the mural speaks to a legacy of empire and colonialism. This course brings Puerto Rico in dialogue with other past/present U.S. colonies and neocolonies such as Cuba, Dominican Republic, Guam, Philippines, and Hawai’i and their diasporas. Listening to spoken word, murals, music, oral histories, podcasts, and other mediums of sound and silence, we examine themes of race, sovereignty, colonialism, and empire across new geographic re-imaginings.

Spr ETHN0190A001 26152 TTh 6:40-8:00PM(18) (C. Maldonado)

ETHN 0190B. Bad Capital: Race, Technology, and Asian/America.

How do representations of Asians and Asian Americans reinforce systems of Orientalism, capitalism, and colonialism in the U.S. and beyond? Through film, literature, and theory, this course aims to examine representations of Asian/American labor, capital, and consumption against the historical backdrop of the evolving U.S. political economy. Tracing historical representations of post-Emancipation Asian “coolie” laborers to contemporary anxieties surrounding Chinese surveillance, Indian tech outsourcing, and Japanese manufacturing, this course aims to unpack cultural representations of Asian/Americans at the intersections of Orientalism, capitalism, and technology.

Spr ETHN0190B001 25906 TTh 10:30-11:50(09) “To Be Arranged”

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.

Fall ETHN1000 S01 15487 MWF 1:00-1:50(06) (K. Escudero)

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 knowledge, and more.

Fall ETHN1200B001 15702 Th 4:00-5:30(04) (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.

Fall ETHN1200D001 15499 TTh 10:30-11:50(13) (R. Rodriguez)

ETHN 1200F. The Mexican Revolution (HIST 1333).

Interested students must register for HIST 1333.

Fall ETHN1200F001 17911 Arranged “To Be Arranged”

ETHN 1200H. 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 ETHN1200H001 15503 W 3:00-5:30(17) (A. Keene)


In 1868, in the largest strike that America had ever seen, ten thousand Chinese workers struck Central Pacific Railroad. One hundred and fifty years later, Asian Americans, now stereotyped as the “model minority,” are rendered invisible in current struggles for social justice. Yet as railroad workers, laundrymen, farmworkers, draft resisters, sewing women and nurses, Asian Americans have left us a rich legacy of legal, social and political activism. Particular attention will be paid to solidarities across racial, gender, and national boundaries.

Fall ETHN1200J001 16763 MWF 10:00-10:50(14) (R. Lee)

ETHN 1200K. Introduction to American Indian Studies.

Introduces students to both historical and contemporary issues in North America, examining issues of sovereignty, representation and self-representation, culture, politics, and history. Because this course is interdisciplinary, we will use texts from Indigenous studies, anthropology, cultural studies, history, film and literature as tools to understand and appreciate the ways in which American Indian cultures survive, flourish and shape the United States. No special background is required. All students are welcome. Enrollment limited to 30.

Fall ETHN1200K001 16770 TTh 2:30-3:50(03) (E. Hoover)

ETHN 1200L. Introduction to Latinx History.

The Latinx population in the United States continues to be mischaracterized in popular culture, political debates, and in the media. How can one discuss a group as diverse as Mexican Americans, Dominican Americans, Cuban Americans, Puerto Ricans, and, most recently, Americans from Central America? Students will explore key moments of racial formation and state policies, social phenomena, and social revolutions that influence the daily life of Latinx communities in the US and in US territories. Students will analyze cultural texts and social policies and will develop a facility with key concepts in the field.

Spr ETHN1200L001 25641 MWF 2:00-2:50(07) (M. Martinez)

ETHN 1650E. Food Justice and Public Humanities.

What would food justice look like, and how can this vision best be brought to the general public? This course explores how activists and academics have defined food justice in various communities, the structural challenges that have led to a lack of access to sufficient, healthy, culturally appropriate food, and will culminate in exhibit work exploring how to communicate these issues to a broader public.

Spr ETHN1650E001 25869 Th 4:00-5:30(17) (E. Hoover)

ETHN 1650F. Mapping Violence.

Mapping Violence is a research project that aims to expose interconnected histories of violence, the legacies of colonization, slavery, and genocide that intersect in Texas in the early twentieth century. Although often segregated in academic studies, these histories coalesced geographically and temporally. Students in this course will learn interdisciplinary methods combining ethnic studies, history, public humanities and the digital humanities to rethink the limits of archival research, historical narrative, and methods for presenting findings to public audiences. This research intensive seminar will allow students to develop historical research skills and to contribute original research to the Mapping Violence project.

Spr ETHN1650F001 25665 W 3:00-5:30(10) (M. Martinez)

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.

Spr ETHN1750A001 24616 TTh 9:00-10:20(01) (K. Escudero)
In many Native American communities the push to "eat local" is often based on reviving a traditional food culture as well as a way of promoting better health. This class explores the disparate health conditions faced by Native communities, and the efforts by many groups to address these health problems through increasing community access to traditional foods, whether by gardening projects or a revival of hunting and fishing traditions. We will examine the ways in which Native food movements have converged and diverged from general American local food movements, and the struggles they often face in reviving treaty-guaranteed food ways.
Fall ETHN1750BS01 17454 TTh 1:00-2:20(08) (E. Hoover)

ETHN 1750S. 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 are, 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, and poetry. In addition to more conventional concerns like racism or immigration, these works also address such issues as empire, war, mixed-race identity, environment, nationalism, and sexuality.
Spr ETHN1750SS02 26079 TTh 1:00-2:20(08) (D. Kim)

ETHN 1900E. Senior Seminar in Ethnic Studies.
No description available.
Spr ETHN1900ES01 24344 M 3:00-5:30(13) (A. Keene)

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 0066D. Who Owns the Past?
Examines the role of the past in the present. Using examples from the U.S. and other parts of the world, we will look at how archaeological evidence is implicated in contemporary cultural and political issues. Students will learn that the past is not just the focus of archaeologists' interest and scientific inquiries, but is also a subject romanticized by antiquarians, mobilized in nation-building, marketed for profit, re-enacted as entertainment, consumed by tourists, and glorified in commemoration. Understanding these different and competing valuations, claims, and uses of the archaeological past will provide an introduction to why the past matters in the present and to the future. Enrollment limited to 19 first year students.
Fall ANTH0066DS02 16812 W 3:00-5:30(17) (P. Rubertone)

ANTH 0066N. Peoples and Cultures of Greater Mexico.
This course will focus on the cultural area known as Greater Mexico, incorporating Mexicans residing in the United States and other parts of the world, as well as the approximately 25 million Mexicans living permanently or for a time in the United States. Specific topics to be covered in the class include: urban peasants and rural proletarians, recent challenges to gender conventions, national and international migration, nationalism and the changing meanings of the Conquest and colonial periods, land and indigenous rights, everyday violence, machismo, popular culture, and protest and rebellion. Limited to first-year students.
Spr ANTH0066NS01 25444 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 anthropologies of Native American food movements with other cultures to its conclusions and conduct in our own. No prerequisites.
Spr ANTH0100 S01 25445 MWF 10:00-10:50(03) "To Be Arranged"

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.
Fall ANTH0300 S01 16815 MWF 11:00-11:50(16) (K. Mason)

ANTH 0310. Human Evolution.
Examination of theory and evidence on human evolution in the past, present and future. Topics include evolution and adaptation, biocultural adaptation, fossil evidence, behavioral evolution in primates, human genetic variation and contemporary human biological variation.
Fall ANTH0310 S01 16816 MWF 10:00-10:50(14) (A. Scherer)

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.
Spr ANTH0500 S01 25446 MWF 11:00-11:50(04) (S. Houston)

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.
Spr ANTH0800 S01 25447 MWF 1:00-1:50(06) "To Be Arranged"

ANTH 1125. Indigenous Archaeologies.
This is an intro. to Indigenous archaeology, sometimes defined as archaeology "by, for and with Indigenous peoples." These approaches combine the study of the past with contemporary social justice concerns. However, they are more than this. In addition to seeking to make archaeology more inclusive of and responsible to Indigenous peoples, they seek to contribute a more accurate understanding of archaeological record. Thus they not reject science, but attempt to broaden it through a consideration of Indigenous epistemologies. This course covers topics as the history of anthropological archaeology, Indigenous knowledge and science, decolonizing methodologies, representational practices and NAGPRA.
Fall ANTH1125 S01 16817 TTh 10:30-11:50(13) (R. Preucel)

ANTH 1150. Middle East in Anthropological Perspective.
A seminar focusing on anthropological methods of analyzing and interpreting Middle Eastern cultures and societies. Emphasizes the study of kinship, tribal structure, social organization and gender relations, ethnic groups relations, and urban-rural distinctions. Draws upon insights from these topics as a basis for understanding contemporary social, economic, and political dynamics in the region.
Fall ANTH1150 S01 16818 TTh 4:00-5:30(04) (A. Zengin)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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.
Spr ANTH1240 S01 25448 TTh 9:00-10:20(01) (B. Singh)

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?
Spr ANTH1242 S01 25449 TTh 2:30-3:50(11) (K. Mason)

ANTH 1253. The Visual in Anthropology: Documentary Films and Society.
This lecture course entails an introduction of the history of anthropology complemented with cinematic documentary films. Anthropological text is used to demonstrate continuity between the visual and the written word in select films screened for the course. Weekly topics address the anthropology of exclusive authors to critically juxtapose their work with discussion on either the convergence or discontinuity in the uses of the documentary films. Do films inform us or deviate from our understanding of the written anthropological ethnographies? How do we read culture from the visual? Is culture or the social readable or not?
Fall ANTH1253 S01 16819 TTh 1:00-2:20(08) (L. Fruzzetti)

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 addictions. We will read some of the major cross cultural, ethnographic, linguistic, and social-political works on addictions. Students will conduct their own anthropological interviews regarding substance misuse and recovery as well as observe a local 12 step recovery meeting in the community. Students will engage in discussions of recovery with community partners. Enrollment limited to 20.
Fall ANTH1300 S01 16820 T 4:00-6:30(09) (L. 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 formerly confined to the skid rows of large cities. In this course, through readings, readings, discussion, and hands on experiences with individuals and families experiencing homelessness, 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 community partners in order to gain face to face experiences. The field placements will be facilitated by the professor.
Spr ANTH1301 S01 25450 T 4:00-6:30(16) (L. Glasser)

This course explores how physical energy infrastructures configure social and political power across human societies. It enables students to understand contemporary energy challenges not simply as a matter of scarce or unsustainable material resources but also as a matter of socioeconomic inequality, geopolitical instability, structural racism and sexism, indigenous sovereignty, and other social issues. In introducing students to the complex operations of coal, oil, solar, wind, gas, and other energy resources, this course offers a conceptual framework for making sense of the intersecting material and social dynamics of political power, and for navigating today's greatest resource challenges.
Fall ANTH1553 S01 17068 M 3:00-5:30(05) (M. Lennon)

ANTH 1599. Politics of Indigeneity in Brazil (LACA 1503Q).
Interested students must register for LACA 1503Q.
Fall ANTH1599 S01 17520 Arranged 'To Be Arranged'

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.
Fall ANTH1621 S01 16822 M 3:00-5:30(05) (P. Rubertone)

ANTH 1623. Archaeology of Death.
Examines death, burial, and memorials using comparative archaeological evidence from prehistory and historical periods. The course asks: What insight does burial give us about the human condition? How do human remains illuminate the lives of people in the past? What can mortuary artifacts tell us about personal identities and social relations? What do gravestones and monuments reveal about beliefs and emotions? Current cultural and legal challenges to the excavation and study of the dead are also considered.
Spr ANTH1623 S01 25451 MWF 12:00-12:50(05) (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 16823 TTh 9:00-10:20(02) (A. Cormier)

ANTH 1750. Bioarchaeology and Forensic Anthropology.
Bioarchaeology and forensic anthropology have common methodological roots (human osteology) but are oriented to answer very different questions. Both are grounded in the anthropological sub-disciplines of biological anthropology and archaeology. The focus in bioarcheology is advancing our understanding of the human experience in the past. Bioarchaeologists study a range of topics including health, violence, migration, and embodiment. Forensic anthropology is a form of applied anthropology that is employed to document and interpret human remains in medicolegal contexts. The course will survey both fields while instructing in the methodologies and approaches of each. The course complements The Human Skeleton (ANTH 1720).
Spr ANTH1750 S01 24647 TTh 9:00-10:20(01) (A. Scherer)

ANTH 1830. The Pictured Text.
Writing makes language visible, and thus concerns images. Language also delimits the legibility of imagery. Turning words into images and images into words occurs at great speed around us. This course explores the relation of text and image across world traditions—Chinese, Mayan, Egyptian, Islamic, Greco-Roman, and others, extending up to the present. Topics include: calligraphy, context, scribal practice, the form and shape of writing, including typography, hidden or pseudo-writing, graffiti, and contemporary art.
Fall ANTH1830 S01 17046 W 3:00-5:30(17) (S. Houston)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ANTH 1901. Anthropology in/of the Museum.
This course provides an introduction to museums from an anthropological perspective. Topics include politics of representation and the construction of the "Other"; objects, identity, and meaning; collecting and cultural property; and collaboration, community engagement, and indigenous self-representation. Assignments involve work with the Haffenreffer Museum of Anthropology’s exhibitions and collections. The course focuses on museums dedicated to natural and cultural history, but establishes theoretical and practical grounding for thinking about and working in other disciplines and other kinds of display institutions. It is suitable for both undergraduate and graduate students. There are no prerequisites; but familiarity with anthropology is presumed.

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.

ANTH 1911. Gender and Sexuality in the Middle East.
The aim of this course is to offer an overview of the key issues in the study of gender and sexuality with reference to the Middle East. It will provide a gendered understanding of prevailing structures, ideologies, social practices and trends for those students interested in Middle East societies, cultures and politics, as well as those interested in women and gender studies. While the course focuses on anthropological approaches, it is interdisciplinary in scope, with readings and theoretical underpinnings ranging from anthropology to history, sociology, political science, to cultural studies.

ANTH 1940. Ethnographic Research Methods.
To understand the different theoretical assumptions that shape research efforts; to examine 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.

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

This Senior Seminar capstone course is a critical look at the past, present, future of anthropology. The class proceeds from the premise that we must know the history of our field in order to build a stronger discipline. It examines the contributions and missteps of past anthropologists. Among the key questions to address: What are the discipline’s aims and contributions in the 21st century? Has the field successfully integrated diverse voices and perspectives? Are their central theories and methods that have (and continue to) define the field? What does it mean to be an anthropologist?

An examination of the intellectual roots and the development of theory and method in anthropology, from the discipline’s origins in the nineteenth century to 1940, with an emphasis on sociocultural anthropology.

A seminar exploring fundamental theoretical and ethnographic currents in 20th- and 21st-century cultural anthropology.

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

ANTH 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.

ANTH 2130. Biopolitics.
Foucault’s concept of biopolitics transformed how anthropologists understand power, agency, modernity, and, more broadly, life itself. As a theoretical tool, it has informed a range of contemporary social science—from intersectional research on reproductive health to theories of the postcolonial state to ethnographies on consumerism. This course will introduce graduate students to the core components and theoretical lineages of biopolitics, and recent ethnographic and archival work that builds on and challenges Foucault’s seminal texts. We will highlight the work of Black, indigenous, women, and queer scholars who have sharpened our discipline’s apprehension of biopolitics through intersectional, postcolonial, and anti-racist perspectives.

ANTH 2450. Exchange Scholar Program.

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

ANTH 2515. Material Matters.
In the past decade there has been a growing interest in the study of material culture as an explicitly interdisciplinary endeavor involving the fields of anthropology, archaeology, art history, literary theory, museum studies, and philosophy, among many others. These perspectives exhibit a range of approaches to interrogating how people make things, how things make people, how objects mediate social relationships, and how inanimate objects can be argued as having a form of agency. This graduate seminar is designed to encourage reflection upon material culture and its influence in shaping our lives.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ANTH 2520. Mesoamerican Archaeology and Ethnography.
Seminar focusing on current issues in the archaeology and history of Mesoamerica, including Mexico and Northern Central America. Draws on rich resources at Brown, including the John Carter Brown Library.
Spr ANTH2520 S01 25458 Th 4:00-6:30(17) (S. Houston)

ANTH 2590. Space, Power, and Politics.
This course critically examines the politics of space and landscape from an interdisciplinary perspective. After reading key texts in political philosophy and cultural geography, we explore themes in recent scholarship including the spatial production of sovereignty, capital, and political subjectivity and the evolving role of digital cartography in public culture and politics. Case studies are drawn from archaeology, art history, ethnography, cultural geography, and history.
Fall ANTH2590 S01 17475 M 3:00-5:30(05) (P. Van Valkenburgh)

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 25459 M 3:00-5:30(13) 'To Be Arranged'

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 15252 Arranged 'To Be Arranged'
Spr ANTH2970 S01 24154 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 residency requirement and are continuing research on a full time basis.
Fall ANTH2990 S01 15253 Arranged 'To Be Arranged'
Spr ANTH2990 S01 24155 Arranged 'To Be Arranged'

ANTH XLIST. Courses of Interest to Students Concentrating in Anthropology.

Applied Mathematics

For students in any discipline that may involve numerical computations. Includes instruction for programming in MATLAB. Applications discussed include solution of linear equations (with vectors and matrices) and nonlinear equations (by bisection, iteration, and Newton's method), interpolation, and curve-fitting, difference equations, iterated maps, numerical differentiation and integration, and differential equations. Prerequisite: MATH 0100 or its equivalent.
Spr APMA0160 S01 25635 MWF 9:00-9:50(02) (M. Fabien)

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 16846 MWF 12:00-12:50(15) (S. Akopian)
Spr APMA0330 S01 25481 MWF 12:00-12:50(05) (V. Dobrushkin)

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, 0350, or advanced placement.
Fall APMA0340 S01 16847 MWF 12:00-12:50(15) (V. Dobrushkin)
Spr APMA0340 S01 25482 MWF 12:00-12:50(05) (S. Akopian)

This course provides a comprehensive introduction to ordinary differential equations and their applications. During the course, we will see how applied mathematicians use ordinary differential equations to solve practical applications, from understanding the underlying problem, creating a differential-equations model, solving the model using analytical, numerical, or qualitative methods, and interpreting the findings in terms of the original problem. We will also learn about the underlying rigorous theoretical foundations of differential equations. Format: lectures and problem-solving workshops.
Fall APMA0350 S01 16848 MWF 2:00-2:50(07) (Y. Guo)
Spr APMA0350 S01 25483 MWF 9:00-9:50(02) (B. Sandstede)

This course builds on APMA 0350 which covers ordinary differential equations and systems involving a single independent variable. We will look at processes with two or more independent variables formulated as partial differential equations (PDE) using concepts from multivariable calculus. We will see how problems are described quantitatively as PDEs, how seemingly unrelated contexts can result in similar equations; and develop methods for solution using analytical, numerical or qualitative methods. Contexts include first order equations; the second order wave equation and problems involving diffusion processes; steady state balances for systems in two or three dimensions; together with insights from theory.
Fall APMA0360 S01 16849 MWF 1:00-1:50(06) (M. Maxey)
Spr APMA0360 S01 25484 MWF 1:00-1:50(06) (H. Dong)

APMA 0650. Essential Statistics.
A first course in probability and statistics emphasizing statistical reasoning and basic concepts. Topics include visual and numerical summaries of data, representative and non-representative samples, elementary discrete and continuous distributions, elementary probability theory, the normal distribution, sampling variability, elementary theoretical foundations of statistical inference, measures of association. Examples and applications from the popular press and the life, social and physical sciences. No prerequisites.
Spr APMA0650 S01 25486 MWF 3:00-4:20(10) (C. Lawrence)

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 the are arise in the context of biological problems. Prerequisites: APMA 0330, 0340 or 0350, 0360, or written permission.
Spr APMA1070 S01 25489 MWF 11:00-11:50(04) (L. Bienenstock)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
APMA 1080. Inference in Genomics and Molecular Biology.
Massive quantities of fundamental biological and geological sequence data have emerged. Goal of APMA1080 is to enable students to construct and apply probabilistic models to draw inferences from sequence data on problems novel to them. Statistical topics: Bayesian inferences; estimation; hypothesis testing and false discovery rates; statistical decision theory; change point algorithm; hidden Markov models; Kalman filters; and significances in high dimensions. Prerequisites: One of following APMA 1650, APMA 1655, MATH 1610, CSC1 1450; and one of the following: APMA 0160, CSC 0040, CSC 0150, CSC 0170, CSC 0190, CLPS 0950; waiver for students with substantial computing experience and their acceptance of responsibility for their own computing.
Fall APMA1080 S01 16850 MW 3:00-4:20(17) (C. Lawrence)

APMA 1160. An Introduction to Numerical Optimization.
This course provides a thorough introduction to numerical methods and algorithms for solving non-linear continuous optimization problems.
A particular attention will be given to the mathematical underpinnings to understand the theoretical properties of the optimization problems and the algorithms designed to solve them. Topics will include: line search methods, trust-region methods, nonlinear conjugate gradient methods, an introduction to constrained optimization (Karush-Kuhn-Tucker conditions, mini-maximization, saddle-points of Lagrangians). Some applications in signal and image processing will be explored. Basic programming skills at the level of APMA 18 or CSCI 40 are assumed.
Fall APMA1160 S01 16851 MWF 10:00-10:50(14) (J. Darbon)

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 16852 MWF 10:00-10:50(14) (Y. Shin)

APMA 1180. Introduction to Numerical Solution of Differential Equations.
Fundamental numerical techniques for solving ordinary and partial differential equations. Overview of techniques for approximation and integration of functions. Development of mult-istep and multi-stage methods, error analysis, step-size control for ordinary differential equations. Solution of two-point boundary value problems, introduction to methods for solving linear partial differential equations. Students will be required to use Matlab (or other computer languages) to implement the mathematical algorithms under consideration: experience with a programming language is therefore strongly recommended. Prerequisites: APMA 0330, 0340 or 0350, 0360.
Spr APMA1180 S01 25913 TTh 10:30-11:50(09) (G. Pang)

Basic probabilistic problems and methods in operations research and management science. Methods of problem formulation and solution. Markov chains, birth-death processes, stochastic service and queueing systems, the theory of sequential decisions under uncertainty, dynamic programming. Applications. Prerequisite: APMA 1650, 1655 or MATH 1610, or equivalent.
Spr APMA1200 S01 25491 TTh 9:00-10:20(11) (A. Matzavinos)

An introduction to 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.
Spr APMA1210 S01 25490 TTh 10:30-11:50(09) (Y. Shin)

APMA 1330. Methods of Applied Mathematics.
Fall APMA1330 S01 16853 MWF 1:00-1:50(06) (S. Geman)

APMA 1360. Applied Dynamical Systems.
This course gives an overview of the theory and applications of dynamical systems modeled by differential equations and maps. We will discuss changes of the dynamics when parameters are varied, investigate periodic and homoclinic solutions that arise in applications, and study the impact of additional structures such as time reversibility and conserved quantities on the dynamics. We will also study systems with complicated “chaotic” dynamics that possess attracting sets which do not have an integer dimension. Applications to chemical reactions, climate, epidemiology, and phase transitions will be discussed.
Spr APMA1360 S01 25492 MWF 2:00-2:50(07) (G. Menon)

APMA 1650. Statistical Inference I.
APMA 1650 is an integrated first course in mathematical statistics. The first half of APMA 1650 covers probability and the last half is statistics, integrated with its probabilistic foundation. Specific topics include probability spaces, discrete and continuous random variables, methods for parameter estimation, confidence intervals, and hypothesis testing. Prerequisite: 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 APMA1650 S01 16854 TTh 2:30-3:50(03) (C. Kilvan)
Spr APMA1650 S01 25493 TTh 9:00-10:20(01) (S. Punshon-Smith)

APMA 1655. Statistical Inference II.
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 APMA1655 S01 16855 TTh 2:30-3:50(03) (H. Wang)
Spr APMA1655 S01 25495 TTh 2:30-3:50(11) (H. Wang)

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.
Spr APMA1660 S01 25496 TTh 2:30-3:50(11) 'To Be Arranged'

APMA 1681. Computational Neuroscience (NEUR 1680).
Interested students must register for NEUR 1680.
Fall APMA1681 S01 17585 Arranged 'To Be Arranged'

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 16856 MWF 2:00-2:50(07) (M. Harrison)

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 APMA1710 S01 16857 MWF 9:00-9:50(01) (G. Menon)
Course Descriptions

APMA 1740. Recent Applications of Probability and Statistics.
This course develops the mathematical foundations of modern applications of statistics to the computational, cognitive, engineering, and neural sciences. The course is rigorous, but the emphasis is on application. Topics include: Gibbs ensembles and their relation to maximum entropy, large deviations, exponential models, and information theory; statistical estimation and the generative, discriminative and algorithmic approaches to classification; graphical models, dynamic programming, MCMC computing, parameter estimation, and the EM algorithm. For 2,000-level credit enroll in 2610; for 1,000-level credit enroll in 1740. Rigorous calculus-based statistics, programming experience, and strong mathematical background are essential. For 2610, some graduate level analysis is strongly suggested.

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<th>Course</th>
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<tbody>
<tr>
<td>APMA1740</td>
<td>Prob &amp; Stat</td>
<td>M. Harrison</td>
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</table>

APMA 1930T. Waves.
The seminar will discuss a diverse sample of wave phenomena encountered in physics, biology and other aspects of common experience, which are modeled through differential equations, and will demonstrate how the marvelous mathematics emerging from the study of these equations contribute to our understanding of the underlying phenomena. Students are expected to have some familiarity with the theory of partial differential equations, at the level of APMA 0360.

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<th>Course</th>
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<tbody>
<tr>
<td>APMA1930TS01</td>
<td>Waves</td>
<td>9:00-10:50(03)</td>
<td>M. C. Dafemors</td>
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</table>

APMA 1930U. Introduction to Stochastic Differential Equations.
This seminar course serves as an introduction to stochastic differential equations at the senior undergraduate level. Topics covered include Brownian motion and white noise, stochastic integrals, the Itô calculus, existence and uniqueness of solutions to Itô stochastic differential equations, and the Feynman-Kac formula. Several applications, including stochastic control theory and continuous MCMC optimization methods, may be addressed depending on the interests of the class and time restrictions.

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<th>Course</th>
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<tbody>
<tr>
<td>APMA1930ULS01</td>
<td>Stochastic Diff Eq</td>
<td>3:00-5:30(17)</td>
<td>A. Matzavinos</td>
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</table>

APMA 1940Z. Probability in Quantum Mechanics.
We will start from scratch. The only prerequisites are some probability, statistics, and good math skills. We will be rigorous in making a careful accounting of the (few) assumptions that lead mathematically and inescapably to consequences that are almost impossible to believe. With an eye on some of the most startling and vexing of these, we will construct a minimum mathematical foundation sufficient to explore: the abrupt transition from the weird quantum to the familiar classical world; the uncertainty principles; teleportation; Bell’s theorem and the Einstein-Bohr debates; quantum erasure; the Conway-Kochen "free-will theorem"; quantum computing; and (unbreakable) quantum encryption.

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<tbody>
<tr>
<td>APMA1940Z</td>
<td>Prob in Quantum Mechanics</td>
<td>9:00-10:20(02)</td>
<td>J. Mallet-Paret</td>
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</table>

APMA 1941A. An Introduction to Pattern Theory.
Study Bayesian methods for inference that were pioneered by Grenander. The emphasis is mainly on models and algorithms, but the class also introduces theoretical tools such as Gaussian processes, stochastic gradient descent and mass transportation. Class proceeds from Shannon’s model of text to patterns of increased complexity. The order of difficulty is text, music, character recognition, images, faces and natural scenes. The goal of pattern theory is to develop Bayesian models to synthesize and decode such patterns. There is not enough time to cover all these topics, so the class will progress by the development of theory in parallel with examples.

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<tr>
<th>Course</th>
<th>Title</th>
<th>Section</th>
<th>Time</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>APMA1941A</td>
<td>Pattern Theory</td>
<td>3:00-5:30(10)</td>
<td>G. Menon</td>
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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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<th>Course</th>
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<tbody>
<tr>
<td>APMA2110A</td>
<td>Real Function Theory</td>
<td>17425</td>
<td>Arranged</td>
<td>&amp; To Be Arranged</td>
</tr>
<tr>
<td>APMA2120A</td>
<td>Real Function Theory</td>
<td>25946</td>
<td>Arranged</td>
<td>&amp; To Be Arranged</td>
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<tr>
<th>Course</th>
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<th>Instructor</th>
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<tbody>
<tr>
<td>APMA2190</td>
<td>Nonlinear Dynamics</td>
<td>16888 TTh 2:30-3:50(03)</td>
<td>J. Mallet-Paret</td>
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<tbody>
<tr>
<td>APMA2200</td>
<td>Nonlinear Dynamics</td>
<td>25497 TTh 1:00-2:20(08)</td>
<td>J. Mallet-Paret</td>
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</table>

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

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<tbody>
<tr>
<td>APMA2230</td>
<td>Partial Differential Equations</td>
<td>16859 TTh 9:00-10:20(02)</td>
<td>H. Dong</td>
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APMA 2240. 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.

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<th>Instructor</th>
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<tbody>
<tr>
<td>APMA2240</td>
<td>Fluid Mechanics</td>
<td>25498 MWF 10:00-10:50(03)</td>
<td>D. C. Dafemors</td>
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APMA 2450. Exchange Scholar Program.

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<th>Course</th>
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<th>Section</th>
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<th>Instructor</th>
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<tbody>
<tr>
<td>APMA2450</td>
<td>Exchange Scholar Program</td>
<td>15254 Arranged</td>
<td>To Be Arranged</td>
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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.

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<tbody>
<tr>
<td>APMA2550</td>
<td>Numerical Solution</td>
<td>16860 M 3:00-5:30(05)</td>
<td>C. Shu</td>
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APMA 2560. Numerical Solution of Partial Differential Equations II.
An introduction to weighted residual methods, specifically spectral, finite element and spectral element methods. Topics include a review of variational calculus, the Rayleigh-Ritz method, approximation properties of spectral end finite element methods, and solution techniques. Homework will include both theoretical and computational problems.

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<tbody>
<tr>
<td>APMA2560</td>
<td>Numerical Solution</td>
<td>25500 M 3:00-5:30(13)</td>
<td>C. Shu</td>
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</table>
APMA 2570B. Numerical Solution of Partial Differential Equations III. We will cover finite element methods for ordinary differential equations and for elliptic, parabolic and hyperbolic partial differential equations. Algorithm development, analysis, and computer implementation issues will be addressed. In particular, we will discuss in depth the discontinuous Galerkin finite element method. Prerequisite: APMA 2550 or equivalent knowledge in numerical methods.

Spr APMA2570B S01 25501 W 3:00-5:30(10) (J. Guzman)

APMA 2580A. Computational Fluid Dynamics. The course will focus primarily on finite difference methods for viscous incompressible flows. Other topics will include multiscale methods, e.g., molecular dynamics, dissipative particle dynamics and lattice Boltzmann methods. We will start with the mathematical nature of the Navier-Stokes equations and their simplified models, learn about high-order explicit and implicit methods, time stepping, and fast solvers. We will then cover advection-diffusion equations and various forms of the Navier-Stokes equations in primitive variables and in vorticity/streamfunction formulations. In addition to the homeworks the students are required to develop a Navier-Stokes solver as a final project.

Fall APMA2580A S01 16990 W 3:00-5:30(17) (G. Karniadakis)

APMA 2610. Recent Applications of Probability and Statistics. This course develops the mathematical foundations of modern applications of statistics to the computational, cognitive, engineering, and neural sciences. The course is rigorous, but the emphasis is on application. Topics include: Gibbs ensembles and their relation to maximum entropy, large deviations, exponential models, and information theory; statistical estimation and the generative, discriminative and algorithmic approaches to classification; graphical models, dynamic programming, MCMC computing, parameter estimation, and the EM algorithm. For 2,000-level credit enroll in 2610; for 1,000-level credit enroll in 1740. Rigorous calculus-based statistics, programming experience, and strong mathematical background are essential. For 2610, some graduate level analysis is strongly suggested.

Spr APMA2610 S01 25503 MWF 10:00-10:50(03) (M. Harrison)

APMA 2630. Theory of Probability. Part one of a two semester course that provides an introduction to probability theory based on measure theory. The first semester (APMA 2630) covers the following topics: countable state Markov chains, review of real analysis and metric spaces, probability spaces, random variables and measurable functions, Borel-Cantelli lemmas, weak and strong laws of large numbers, conditional expectation and beginning of discrete time martingale theory. Prerequisites—undergraduate probability and analysis, co-requisite—graduate real analysis.

Fall APMA2630 S01 16862 TTh 1:00-2:20(08) (K. Ramanan)

APMA 2640. Theory of Probability II. Part two of a two semester course that provides an introduction to probability theory based on measure theory. Standard topics covered in the second-semester (APMA 2640) include the following: discrete time martingale theory, weak convergence (also called convergence in distribution) and the central limit theorem, and a study of Brownian motion. Optional topics include the ergodic theorem and large deviation theory. Prerequisites—undergraduate probability and analysis, co-requisite—graduate real analysis.

Spr APMA2640 S01 25504 TTh 1:00-2:20(08) (K. Ramanan)

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 16863 Th 4:00-6:30(04) (B. Gidas)

APMA 2811Z. Stochastic Partial Differential Equations: Theory and Numerics. This course introduces basic theory and numerics of stochastic partial differential equations (SPDEs). Topics include Brownian motion and stochastic calculus in Hilbert spaces, classification of SPDEs and solutions, stochastic elliptic, hyperbolic and parabolic equations, regularity of solutions, linear and nonlinear equations, analytic and numerical methods for SPDEs. Topics of particular interest will also be discussed upon agreement between the instructor and audience.

Prerequisites APMA 2630, APMA 2640; APMA 2550 (recommended).

Fall APMA2811Z S01 17356 T 4:00-6:30(09) ‘To Be Arranged’

APMA 2812A. An Introduction to Stochastic Control. This course presents advanced statistical inference methods. Topics will include (time permitting) Gaussian measure theory, stochastic integration, martingale problems, filtering, stochastic evolution equations in Hilbert spaces, Itô's formula, local well-posedness for semi-linear SPDE with additive noise, weak martingale solutions to 3D Navier-Stokes, Markov processes on Polish spaces, the Krylov–Bogolyubov theorem, the Doob-Khasminskii theorem, and Bismut-Elworthy-Li formula for a class of non-degenerate SPDE. The presentation will be largely self contained, but will assume some basic knowledge in measure theory, functional analysis, and probability theory. Some familiarity with SDE and PDE is also very helpful, but not required.

Fall APMA2812A S01 16963 TTh 1:00-2:20(08) (P. Dupuis)

APMA 2822C. Combinatorial Probability. An introduction to combinatorial theory at the graduate level. Areas to be covered include: posets and lattice theory, enumeration and generating functions, matroids and simplicial complexes, followed by selected topics in the field.

Spr APMA2822C S01 25849 F 3:00-5:30(15) (C. Klivans)

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

APMA 2990. Thesis Preparation. For graduate students who have met the residency requirement and are continuing research on a full-time basis.

Fall APMA2990 S01 15255 Arranged

‘To Be Arranged’

Spr APMA2990 S01 24156 Arranged

‘To Be Arranged’

Archaeology and Ancient World

ARCH 0033. Past Forward: Discovering Anthropological Archaeology (ANTH 0500). Interested students must register for ANTH 0500.

Spr ARCH0033 S01 26285 Arranged

‘To Be Arranged’

ARCH 0100. Field Archaeology in the Ancient World. Always wanted to be Indiana Jones? This course, focusing on the Mediterranean world and its neighbors in antiquity, interprets field archaeology in its broadest sense. In addition to exploring “how to do” archaeology - the techniques of locating, retrieving, and analyzing ancient remains - we will consider how the nature of these methodologies affects our understanding of the past.

Fall ARCH0100 S01 17412 MWF 2:00-2:50(07) (L. Bestock)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### ARCH 0156. Architecture and Urbanism of the African Diaspora (HIAA 0770).
Interested students must register for HIAA 0770.
| Spr | ARCH0156 | S01 | 26286 | Arranged | 'To Be Arranged' |

### ARCH 0250. Intimate Stories, Imagined Landscapes.
Stories carry us to imaginary worlds other than our own. An arresting story engages us deeply, opening the doors to fantastic places and times. Such enthralling narratives have even shaped archaeology's assumptions about places and the people who inhabit them — and, in turn, archaeological discoveries have influenced ideas about real landscapes through fiction. This course explores novels and narrative fiction as a way of understanding how people and cultures imagine landscapes and these places' roles in human lives past and present.
| Spr | ARCH0250 | S01 | 26298 | TTh | 10:30-11:50(09) | 'To Be Arranged' |

### ARCH 0303. tiny: Miniature Might and Meaning.
Egyptian pyramids, Roman aqueducts, Easter Island heads—colossal artifacts are immediately recognizable as embodiments of power. The diminutive—though less theorized among archaeologists, anthropologists, and art historians—is just as potent and alluring. Even across vast stretches of space and time, tiny things enchant and incite wonder. A microscopic Bible, a Renaissance micro-mosaic, a sculpture of hell complete with sinners carved out of a human tooth. This course is a cross-cultural exploration of the power of the miniature, the undersized, the teeny-weeny.
| Fall | ARCH0303 | S01 | 17235 | TTh | 10:30-11:50(13) | (F. Rojas Silva) |

### ARCH 0317. Heritage in the Metropolis: Remembering and Preserving the Urban Past.
Urban heritage — from archaeological sites and historic architecture to longstanding cultural practices — is increasingly threatened by the exponential growth of cities around the globe. Most critically, the complex histories and lived experiences of the diverse communities who have inhabited and shaped cities are often in danger of being erased and forgotten today. This course examines how we might remember and preserve this urban past — and the tangible sites and artifacts that attest to it — in light of the social and political dynamics of cities in the present.
| Fall | ARCH0317 | S01 | 26202 | MWF | 2:00-2:50(07) | (L. Yapp) |

### ARCH 0351. Introduction to the Ancient Near East (ASYR 0800).
Interested students must register for ASYR 0800.
| Fall | ARCH0351 | S01 | 17381 | Arranged | 'To Be Arranged' |

### ARCH 0407. Hadrian's Wall: Soldiers and Civilians on Rome's Northern Frontier.
Explore the archaeology of one of Great Britain's grandest monuments, Hadrian's Wall, and follow its path through the history and archaeology of Roman Britain. Using the fortification as both inspiration and guide, students will learn about the life on Rome's northern frontier, from Rome's first occupation in the Iron Age to Roman withdrawal centuries later. The wall’s symbolic and real impact will illuminate the tangible ways archaeology can teach us about religion, race, the military, politics, art, architecture, and the everyday lives of people in one of Rome's most distant provinces.
| Fall | ARCH0407 | S01 | 17126 | MWF | 1:00-1:50(06) | (T. Francioni) |

### ARCH 0446. War and Peace in the Hebrew Bible and its Environment (JUDS 0670).
Interested students must register for JUDS 0670.
| Fall | ARCH0446 | S01 | 16917 | Arranged | 'To Be Arranged' |

### ARCH 0520. Roman Archaeology and Art.
Anyone who has ever watched 'Gladiator', 'Spartacus', 'Life of Brian' or 'Bugs Bunny: Roman Legion Hare' has some image of Rome, the Romans and their empire. This course, while exploring and assessing these influential popular preconceptions, introduces a more balanced view of Roman archaeology and art, examining not only the 'eternal city' of Rome, but its vast and diverse imperial domain.
| Spr | ARCH0520 | S01 | 25756 | MWF | 1:00-1:50(06) | (C. Rice) |

### ARCH 0530. Hannibal ad Portas! Fact and Fiction on Carthage and the Punic World.
"Hannibal stands at the gates": Roman parents would terrify their children with these words. And many others have been haunted by Hannibal Barca: the Carthaginian general still fascinates the European imagination, not least his epic trek over the Alps with three dozen elephants. This course explores fact and fiction about Hannibal and his world, holding up historical and mythical records against hard archaeological evidence. Enrollment limited to 50.
| Fall | ARCH0530 | S01 | 17122 | MWF | 12:00-12:50(15) | (P. Van Dommelen) |

### ARCH 0680. Water, Culture and Power.
Water is the source of life. In the midst of global climate change, environmental crises over water resources, and increasingly ubiquitous political debates over water, we are beginning to recognize humans' complete dependence on water. This course investigates our long-term attachment and engagement with water using archaeology, environmental history, and visual, literary and historical sources. From sacred spaces around springs to ancient cities by the sea, we will explore the cultural and political aspects of water beginning with the Last Ice Age and ending with late antiquity. Enrollment limited to 50 undergraduates.
| Spr | ARCH0680 | S01 | 25940 | MWF | 11:00-11:50(04) | (T. Francioni) |

### ARCH 0770. Archaeology of Eating and Drinking.
Everybody eats — but patterns of eating and drinking vary dramatically from culture to culture. This course will examine the social roles and meanings of eating and drinking from prehistory to the present, using case studies from the Mediterranean and other parts of the world. How are identity, gender, and power negotiated through food and drink? What are the roles of the body, the senses, and memory? What does a history of humanity look like from the point of view of the consuming body?
| Fall | ARCH0770 | S01 | 17121 | TTh | 9:00-10:20(02) | (Y. Hamilakis) |

### ARCH 0801. Alexander the Great and the Alexander Tradition (CLAS 0810A).
Interested students must register for CLAS 0810A.
| Fall | ARCH0801 | S01 | 17383 | Arranged | 'To Be Arranged' |

### ARCH 1056. Indigenous Archaeologies (ANTH 1125).
Interested students must register for ANTH 1125.
| Fall | ARCH1056 | S01 | 17384 | Arranged | 'To Be Arranged' |

### ARCH 1128. The Long Fall of the Roman Empire (CLAS 1205).
Interested students must register for CLAS 1205.
| Fall | ARCH1128 | S01 | 17385 | Arranged | 'To Be Arranged' |

### ARCH 1162. Anthropology in/of the Museum (ANTH 1901).
Interested students must register for ANTH 1901.
| Fall | ARCH1162 | S01 | 17386 | Arranged | 'To Be Arranged' |

### ARCH 1167. Museum Histories (AMST 1903I).
Interested students must register for AMST 1903I.
| Fall | ARCH1167 | S01 | 17900 | Arranged | 'To Be Arranged' |

### ARCH 1214. The Viking Age (HIST 1210A).
Interested students must register for HIST 1210A.
| Spr | ARCH1214 | S01 | 26288 | Arranged | 'To Be Arranged' |

Interested students must register for HIAA 1305.
| Fall | ARCH1237 | S01 | 17387 | Arranged | 'To Be Arranged' |

### ARCH 1282. Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC (CLAS 1210).
Interested students must register for CLAS 1210.
| Fall | ARCH1282 | S01 | 17388 | Arranged | 'To Be Arranged' |

Interested students must register for JUDS 1974.
| Fall | ARCH1448 | S01 | 17901 | Arranged | 'To Be Arranged' |

### ARCH 1487. Environmental History of East Asia (HIST 1820B).
Interested students must register for HIST 1820B.
| Spr | ARCH1487 | S01 | 26287 | Arranged | 'To Be Arranged' |

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Fall ARCH1543 S01 17448 Arranged 'To Be Arranged'

Fall ARCH1621 S01 17389 Arranged 'To Be Arranged'

ARCH 1771. Archaeology of Death (ANTH 1623). Interested students must register for ANTH 1623.
Spr ARCH1771 S01 26289 Arranged 'To Be Arranged'

ARCH 1772. The Human Skeleton (ANTH 1720). Interested students must register for ANTH 1720.
Fall ARCH1772 S01 17390 Arranged 'To Be Arranged'

ARCH 1792. The Archaeology of Slavery. No one would question that slavery leaves invisible and painful marks on all individuals and societies touched by it. But slavery leaves behind many physical, recoverable traces as well: plantations, slave forts, slaving wrecks, burial grounds. From such evidence, this course will explore four centuries of slavery in the Atlantic world, asking not only about how people coped in the past, but about the legacy of slavery in our world today.
Fall ARCH1792 S01 17745 MWF 11:00-11:50(16) (R. Gomes Coelho)

ARCH 1822. Anthropology of Place (ANTH 1910B). Interested students must register for ANTH 1910B.
Spr ARCH1822 S01 26290 Arranged 'To Be Arranged'

ARCH 1852. Material Culture Practicum (ANTH 1621). Interested students must register for ANTH 1621.
Fall ARCH1852 S01 17391 Arranged 'To Be Arranged'

ARCH 1870. Environmental Archaeology. From Neanderthals on the brink of extinction to the smog of the Industrial Revolution, humans have been impacted by the environment for millions of years. How has climate change affected the development of human society? How have people adapted to their environments in the past? What does "sustainability" mean over the long term? Environmental archaeology is the study of these questions through the use of scientific techniques to analyze soils, plants, artifacts, and human and animal remains from ancient archaeological contexts. These methods will be introduced with an eye toward how they allow us to interpret human-environmental interactions in the past, as well as the present and future.
Fall ARCH1870 S01 17127 TTh 1:00-2:20(08) (Z. Dunseth)

Fall ARCH1873 S01 17902 Arranged 'To Be Arranged'

ARCH 1877. The Pictured Text (ANTH 1830). Interested students must register for ANTH 1830.
Fall ARCH1877 S01 17395 Arranged 'To Be Arranged'

ARCH 1879. A World in Color: Seeing and Experiencing Colors in Ancient Times. Filtered through the lens of western aesthetics, history books often describe the past in black and white. Scholars even receive death threats for asserting that marble statues were not pristine white in antiquity. But how do ancient and modern artists relate to bodily senses? What is material and sensorial memory, and how does it structure time and temporality? Using media and objects, including archaeological and ethnographic collections at Brown and beyond, this course will study how a sensorial perspective on materiality can reshape and reinvigorate research dealing with past and present material culture. Furthermore, we will explore how sensoriality and affectivity can decenter the dominant western modernist canon of the autonomous individual.
Spr ARCH1884 S01 17392 Arranged 'To Be Arranged'

ARCH 1890. Lost Languages. Humans make many marks, but it is writing that records, in tangible form, the sounds and meanings of language. Creating scripts is momentous; writing facilitates complex society and is a crucial means of cultural expression. This course addresses the nature of writing in past times. Topics include: the technology of script; its precursors and parallel notations; its emergence, use, and "death"; its change over time, especially in moments of cultural contact and colonialism; writing as a physical object or thing; code-breaking and decipherment, including scripts not yet deciphered; and the nature of non-writing or pseudo- or crypto-scripts.
Fall ARCH1890 S01 17798 TTh 2:30-3:50(03) (F. Rojas Silva)

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 W 3:00-5:30(17) (A. Marko)

ARCH 1907. Individual Study Project in Old World Archaeology and Art. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ARCH 1990. Senior Honors Thesis in Archaeology and the Ancient World. 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.

Fall ARCH2006 S01 17393 Arranged 'To Be Arranged'

ARCH 2041. Mesoamerican Archaeology and Ethnohistory (ANTH 2520). Interested students must register for ANTH 2520.
Spr ARCH2041 S01 26291 Arranged 'To Be Arranged'

ARCH 2105. Ceramic Analysis for Archaeology. The analysis and interpretation of ceramic remains allows archaeologists to accomplish varied ends: establish a time scale, document interconnections between different areas, and suggest what activities were carried out at particular sites. The techniques and theories used to bridge the gap between the recovery of ceramics and their interpretation within anthropological contexts are the focus of this seminar. This course will include hands-on, lab-based materials analysis of ceramics and their raw materials.
Spr ARCH2105 S01 25976 W 3:00-5:30(10) (P. Van Dommelen)

ARCH 2112. Roman Epigraphy (LATN 2120A). Interested students must register for LATN 2120A.
Fall ARCH2112 S01 17394 Arranged 'To Be Arranged'

ARCH 2184. Material Culture and the Bodily Senses: Past and Present. How do the senses shape our experience? How many senses are there? How do ancient and modern art and material culture relate to bodily senses? What is material and sensorial memory, and how does it structure time and temporality? Using media and objects, including archaeological and ethnographic collections at Brown and beyond, this course will study how a sensorial perspective on materiality can reshape and reinvigorate research dealing with past and present material culture. Furthermore, we will explore how sensoriality and affectivity can decenter the dominant western modernist canon of the autonomous individual.
Spr ARCH2184 S01 25991 Th 4:00-6:30(17) (Y. Hamilakis)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ARCH 2250. Island Archaeology in the Mediterranean.
The Mediterranean is a world of islands, par excellence, and the island cultures that have developed there over the millennia have great archaeological distinctiveness. This seminar will consider the concept of insularity itself, in cross-cultural archaeological, anthropological, and historical perspective. We will then turn to the rich, specifically Mediterranean literature on island archaeology (exploring issues of colonization, settlement, interaction).

Fall ARCH2250 S01 17128 W 3:00-5:30(17) (J. Cherry)

ARCH 2412. Space, Power, and Politics (ANTH 2590).
Interested students must register for ANTH 2590.

Fall ARCH2412 S01 17886 Arranged 'To Be Arranged'

ARCH 2413. Decolonizing Space and Visual Cultures (HIAA 2285).
Interested students must register for HIAA 2285.

Fall ARCH2413 S01 17399 Arranged 'To Be Arranged'

ARCH 2552. Museums in Their Communities (AMST 2220D).
Interested students must register for AMST 2220D.

Spr ARCH2552 S01 17576 Arranged 'To Be Arranged'

ARCH 2553. Introduction to Public Humanities (AMST 2650).
Interested students must register for AMST 2650.

Fall ARCH2553 S01 17887 Arranged 'To Be Arranged'

ARCH 2554. Decolonizing Public Humanities (AMST 2650).
Interested students must register for AMST 2654.

Fall ARCH2554 S01 17903 Arranged 'To Be Arranged'

Rome developed one of the most complex and extensive economic systems of the pre-industrial era, and debates on the nature and scale of this system have intensified in recent years due to an influx of archaeological data. This course examines a diverse range of material from across the Roman world as we explore the impact that recent archaeological discoveries and new methodological developments have had on our understanding of the Roman economy.

Fall ARCH2625 S01 17343 F 3:00-5:30(11) (C. Rice)

ARCH 2740. Social Life in Ancient Egypt.
This course will draw upon recent discussions in anthropology and sociology that explore issues of identity by examining hierarchies of difference - age, sex, class, ethnicity. We will focus on linking theory with data and on discussing modern and ancient categories of identity. Taking the lifecycle as its structure, the course covers conception to burial, drawing on a range of data sources, such as material culture, iconography, textual data and human remains. The very rich material past of ancient Egypt provides an excellent framework from within which to consider how identity and social distinctions were constituted in the past.

Spr ARCH2740 S01 25941 M 3:00-5:30(13) (L. Bestock)

ARCH 2980. 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 2981. 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 2982. Individual Reading for Dissertation.
Reading leading to selection of the dissertation subject. Single credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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

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.

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

Biology and Medicine

Biology

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 BIOI0030 S01 15735 TTh 9:00-10:20(02) (M. Flynn)

BIOI 0040. Nutrition for Fitness and Physical Activity.
Reviews the role of nutrition in physical activity and health. It is designed to provide the student with the information and skills needed to translate nutrition and physical activity recommendations into guidelines for both the athlete for maximal performance and the non-athlete to improve both health and body weight. Students will learn the use of the energy yielding nutrition in physical activity and how food choices can influence both athletic performance and long-term health through the effect on risk factors for chronic diseases. Prerequisite: BIOI 0030. Enrollment limited to 20. Instructor permission required.

Spr BIOI0040 S01 24390 T 4:00-5:30(16) (M. Flynn)

BIOI 0080. Biotechnology Management.
An examination of the pharmaceutical, biotechnology, 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 the biomedical industry. Not for biology concentration credit. Students MUST register for the lecture section and the conference. Enrollment limited to 20.

Spr BIOI0080 S01 24466 T 4:00-5:30(16) (B. Bready)

BIOI 0100. Living Biology at Brown and Beyond.
This unique first-year seminar taught by Dean Smith has 3 goals: 1) introduce students to the people, projects, and opportunities in Biology at Brown, 2) foster and cultivate student STEM identities and interests, 3) arm students with personal, professional and academic skills to help them succeed in Biology at Brown (and beyond). Students will visit faculty research labs, learn novel lab skills, engage in active research talks from Professors, read and discuss timely books like 'The Immortal Life of Henrietta Lacks', and more. LivBio is especially tailored to students from historically underrepresented groups, but open to all.

Fall BIOI0100 S01 15739 W 3:00-5:30(17) (K. Smith)

BIOI 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.

Fall BIOI0150A S01 15776 Th 5:00-7:00PM(20) (J. Hall)

BIOI 0150C. Introduction to Ethnopharmacology.
Plant secondary metabolites are currently the subject of much research interest when investigating new target compounds for potential medicine from natural products. New leads for drugs and phytomedicines from plants and plant parts have been increasing at a rapid rate especially by the pharmaceutical industry. Many plants have been selected and collected for their specific secondary compounds and healing powers by ethnomedics in the field. Students will gain hands on experience identifying medicinal plants, laboratory equipment, sampling procedures, field tests and extraction techniques of secondary metabolites by high throughput screening methods. Enrollment limited to 10 FYS. Instructor permission required.

Spr BIOI0150C S01 26270 MW 3:00-4:30 (F. Jackson)
BIOL 0150D. Techniques in Regenerative Medicine: Cells, Scaffolds and Staining.

Regenerative Medicine, also known as Tissue Engineering, is the process of creating living, functional tissues to repair or replace native tissue or organ functions that have been lost due to disease or congenital defects. As such, it is a prominent scientific discipline that can either "stand alone" or complement material-based research efforts in the areas of device design, drug delivery, diagnostics and pharmaceuticals. Students will develop proficiencies in basic cell culture techniques, early stage tissue regeneration strategies and histochemical characterization of mammalian cell constructs. Enrollment limited to 10 first year students. Instructor permission required. Half-credit course. S/NC.
Spr BIOL0150D S01 24467 M 12:00-2:00(05) (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. Enrollment limited to 50.
Spr BIOL0160 S01 24421 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 15822 MWF 1:00-1:50(06) (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 small pox, yellow fever and influenza, and then explore AIDS/ HIV. First characterized in 1981, AIDS became the leading cause of death in U.S. males aged 25-44 within a decade. We will examine what factors make HIV such a potent pathogen. The course is intended for students beginning in biology. Expected: BIOL 0200, or equivalent placement. This course does carry Biology concentration credit.
Spr BIOL0180 S01 24947 MW 8:30-9:50(02) (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.
Fall BIOL0190E S01 15740 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.
Fall BIOL0190F S01 15742 TTh 1:00-2:20(08) (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.
Fall BIOL0190P S01 15778 TTh 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 phages 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, and HS chemistry. Instructor permission required. Admittance based on review of applications in the first class. Limited to 19 freshmen.
Fall BIOL0190R S01 15682 M 3:00-5:30(05) (S. Taylor)

BIOL 0190S. Phage Hunters, Part II.

A research-based laboratory/class for freshmen; both semesters are required. Students will isolate and characterize a bacteriophage viruses found in the soil. Lab work includes isolation and purification of your own phage, DNA isolation and restriction mapping, and EM characterization of your phage. Several phages will be selected for genome sequencing over Winter 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.
Spr BIOL0190S S01 24327 W 3:00-5:30(10) (S. Taylor)
Spr BIOL0190S S01 24327 F 3:00-5:30(10) (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.
Fall BIOL0190U S01 15779 TTh 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 time during the second week of class.
Spr BIOL0200 S01 24424 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. The course is open to all students.
Fall BIOL0210 S01 15743 MWF 11:00-11:50(16) (J. Kellner)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 24431 TTh 1:00-2:20(08) (A. Salomon)

In this inquiry-based research course, students work in teams to formulate and test a hypothesis about how a change in genetic sequence affects enzyme function. Students will cultivate skills in scientific visualization, experimental design, data analysis, and laboratory techniques in molecular biology and biochemistry. In discussion, students will learn scientific writing through peer editing and iterative revisions to write a full scientific paper. This course is WRIT designated and will prepare students for writing an honors thesis. Expected: Students have previously taken or be concurrently enrolled in BIOL 0280. Enrollment in one lab section and one discussion section is required.
Spr BIOL0285 S01 24443 M 1:00-5:00(17) (K. Cohen)
Spr BIOL0285 S02 24444 Th 2:30-6:30(17) (K. Cohen)

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 15744 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.
Spr BIOL0400 S01 24923 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 15746 TTh 9:00-10:20(02) (P. Ewanchuk)

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 0990. Lectures and weekly discussion.
Spr BIOL0420 S01 24408 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).
Spr BIOL0430 S01 24410 TTh 9:00-10:20(01) (F. Jackson)

This course focuses on what plants do and how they do it. Introduces the biology of plants, their growth and development, structural features, and their cellular and organismal responses to key stimuli. Examines physiological, reproductive and developmental strategies throughout the plant life cycle and in relation to environmental challenges. During laboratory section meetings, students pursue inquiry-based group research projects addressing novel questions about mechanisms that control plant growth and development. Laboratory section is required. Prerequisites: One Brown course with laboratory section in either Biology or Chemistry. Enrollment limited to 24 students.
Spr BIOL0440 S01 24767 TTh 10:30-11:50(09) (A. DeLong)

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 15780 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 15749 MWF 9:00-9:50(01) (D. Rand)

Biol 0495. Statistical Analysis of Biological Data.
A first course in probability distributions and the use of statistical methods for biological data. Topics covered will include describing data, statistical inference (hypothesis tests and confidence intervals), analyzing associations, and methods for categorical data (contingency tables and odds ratios). Methods will be applied to data drawn from areas of biological inquiry. For statistics or related science credit in Biology programs. Expected background: BIOL 0200 or equivalent, math equivalent to MATH 0100. This course is for related science credit only in Biological Sciences concentration programs. Enrollment limited: 40 undergraduates-20 juniors and 20 sophomores. Registration for seniors requires permission from the instructor.
Spr BIOL0495 S01 24412 TTh 2:30-3:50(11) (S. Ramachandran)

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 24445 MW 3:00-4:20(10) (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 24348 MWF 1:00-1:50(08) (R. Bennett)

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 15689 TTh 2:30-3:50(03) (R. Bungiro)

BIOL 0600. Genetic Screening in Model Organisms. Using gene silencing (RNAi) in the nematode C. elegans, students will identify genetic modifiers of proteins with roles in aging by reverse genetics. Analyzing the effect of knocking down genes on the level of aging-related proteins tagged with fluorophores (GFP, RFP, etc.). Students will use function-specific RNAi libraries (transcription factors, kinases, etc.) established in our lab. Students will evaluate the effect of genetic modifiers on proteostasis and lifespan, also familiarize C. elegans work and appreciating the use of model organisms, the students will master microscopy, genetic crosses, gene silencing, and molecular and biochemical readout assays such as qPCR and immunoblotting.

Fall BIOL0600 S01 17849 Arranged (L. Lapierre)

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 15823 TTh 10:30-11:50(13) (J. Stein)
Spr BIOL0800 S01 24469 MWF 10:00-10:50(03) (C. Hai)

BIOL 0810. Applied Cell and Molecular Biology. Applied cell and molecular biology focuses on the structure and function of macromolecules and cells and how they are altered in disease and therapy. This course will explore physical principles underlying cell function, along with biophysical approaches for solving problems of cell and molecular biology of both a basic and applied nature. Cutting-edge molecular and cellular-based therapeutics will be discussed throughout this course; this includes viral gene delivery constructs, novel platforms for tissue engineering, CRISPR genome editing, and immune checkpoint therapy. This course is particularly suitable for undergraduate students interested in graduate school, undergraduate research, biotechnology, or research-based careers.

Spr BIOL0810 S01 24475 TTh 9:00-10:20(01) (M. Dawson)

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.

Fall BIOL0940A S01 15791 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.

Fall BIOL0940B S01 15760 T 4:00-6:30(09) (D. Jackson)

BIOL 0940E. Precision Medicine or Privileged Medicine? Addressing Disparities in Biomedical Research. This course examines the biomedical research behind precision medicine, disparities in the inclusiveness of this research, and implications of these disparities for the relevance of precision medicine innovations for people and places in Rhode Island. We will focus on these four questions: What new knowledge is making precision medicine possible? Who has been the focus of the biomedical research generating this knowledge, and why? How might inclusiveness of this research impact healthcare disparities in Rhode Island? What is needed to improve the design and outcomes of precision medicine research so that it provides benefits and mitigates harms for all?

Spr BIOL0940E S01 24476 T 4:00-6:30(16) (R. Campbell)

BIOL 0945. Toolbox for Scientific Research. Why is scientific research important? What is the scientific method? What are hypotheses and theories? How do scientists identify research questions, design experiments, fund research, and communicate results? This seminar is designed for students who want to understand and engage in scientific research in biology. Through active learning seminars, group discussions, and meetings with scientists, students will gain a deeper understanding and an appreciation for the principles, practice, and culture of scientific research. The course will also help develop practical and transferable skills to succeed in research and give students an opportunity to connect with research groups at Brown.

Fall BIOL0945 S01 17737 TTh 10:30-11:50(13) (Y. Raynes)

BIOL 0960. Independent Study in Science Writing. BIOL 0960 (fall/spring) is a half credit Independent Study in Science Writing course incorporating a nontechnical science journalism component into the Biology curriculum. Assignments may include investigative or analytical reviews, or feature articles on ethical or social impacts of new discoveries in the biological sciences. BIOL 0960 requires the submission of a formal project proposal completed collaboratively by the student and faculty mentor (see the Biology Undergraduate Education research page for details). BIOL 0960 is not for concentration credit in the biological sciences programs.

BIOL 1040. 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. Advanced undergraduates. Instructor permission required.

Spr BIOL1040 S01 24464 M 2:00-5:00(07) (G. Williams)

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. Prerequisites: BIOL 1270 and 1540. BIOL 0280 or 0470 or 0500, or instructor permission. Graduate students register for BIOL 2050.

Fall BIOL1050 S01 15792 TTh 1:00-2:20(08) (K. Miller)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
**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 0800, or equivalents. Preference will be granted to graduate students in the Biotechnology and Biomedical Engineering programs. Only for related course credit in Biology. Enrollment limited to 20. Instructor permission required.

Fall BIOL1070  S01  15828 MTh  2:00-3:20(07)  (J. Schell)

**BIOL 1100. Cell Physiology and Biophysics.**
Current topics in cell physiology, with an emphasis on membrane-mediated interactions between cells and their environment. Topics may include: ion channel structure, function and regulation; intracellular regulatory molecules; mechanisms of sensory transduction; membrane receptors and second messenger systems; vesicle secretion; and cytoskeletal regulation of cell function. Lectures, discussion, and student presentations of the current literature. Expected: BIOL 0800 or NEUR 0010. Instructor permission required. Registration overrides will not be given 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  24477 M  3:00-5:30(13)  (D. Horrigan)

**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  15829 W  3:00-5:30(17)  (E. Oancea)

**BIOL 1120. Biomaterials.**
A biomaterial is defined as a material suitable for use in medical implants that come in direct contact with patients’ tissues. These include polymers, metals, and ceramics, and materials obtained from biological sources or through recombinant biotechnology. Goal: to provide comprehensive coverage of biomaterial science and technology. Emphasizes the transition from replacement to repair strategies. For advanced undergraduates and graduate students. Prerequisite: BIOL 0800 or instructor permission.

Spr BIOL1120  S01  24478 TTh  6:40-8:00PM(18)  (J. Scott)

**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  15830 Th  3:00-5:50(03)  (D. Hoffman-Kim)

**BIOL 1150. Stem Cell Engineering.**
Stem cell engineering focuses on using adult, embryonic, and induced pluripotent stem cells to repair damaged or diseased tissues. This course will examine the role of stem cells in development, tissue homeostasis, and wound healing, as well as how they can be used for tissue engineering and cell-based regenerative therapies. We will also discuss the ethical, legal, and regulatory issues that accompany current and emerging stem cell engineering endeavors. The course will use an inverted lecture and classroom discussion format to effectively deliver relevant information. Emphasis is placed on oral and written communication skills applied to assignments, tests, and individual projects. As an additional part of this course, students will receive hands-on training in how to culture cells and assess samples for stemness characteristics in a group laboratory setting.

Spr BIOL1150  S01  24910 Th  3:00-5:20(17)  (E. Darling)

**BIOL 1155. Hormones and Behavior.**
This class will explore the hormonal basis of animal behavior. We will assess this relationship at the molecular, cellular, physiological, and evolutionary levels, focusing on a wide range of species beyond humans. Our goal is to understand the diverse mechanisms by which hormones act throughout the animal body to mediate what individuals do in their natural environment. We will explore how selective forces shape these mechanisms to not only arrive at common behavior traits, but also understand and unusual traits that allow species to thrive in harsh or extreme environments.

Fall BIOL1155  S01  17770 MW  3:30-5:50(01)  (M. Fuxjager)

**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  15831 MWF  1:00-1:50(06)  (C. Hai)

**BIOL 1222A. Current Topics in Functional Genomics.**
A technological revolution in genomics has exponentially increased our ability to gather biological data. A host of new methods and types of analysis has arisen to accommodate this dramatic shift in data collection. The broad scope of inquiry has ushered in an era of “system-wide” approaches and brute-force strategies where rare signals can be detected and studied. In this seminar we will cover papers that embody this new approach. Students typically have taken an advanced undergraduate-level course in biology.

Spr BIOL1222A  S01  24904 Arranged  (W. Fairbrother)

**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  24350 Th  2:30-5:30(11)  (S. Vaishnava)

**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  15795 Th  2:30-3:50(03)  (A. Salomon)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
BIOL 1290. Cancer Biology
Provides a conceptual understanding of molecular events underlying development of human cancer. Focused on genetic changes leading to malignant transformation of cells. Covers cell cycle control, DNA damage, mutagenesis, cancer predisposition syndromes, oncogenic viruses, tumor immunology, metastasis, cancer chemotherapy and drug resistance. Lecture plus discussion of primary literature. Prerequisites: BIOL 0280 OR BIOL 0470 OR BIOL 0500.

Fall BIOL1290 S01 16092 MW 3:00-4:20(17) (A. Zhitkovich)

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.

Fall BIOL1300 S01 15833 M 3:00-5:30(05) (N. Fawzi)

BIOL 1310. Developmental Biology
Covers the molecular and cellular events of development from fertilized egg to adult. Genetic basis of body form, cell fate specification and differentiation, processes controlling morphogenesis, growth, stem cells and regeneration will be examined. Differential gene regulation, intercellular signaling and their evolutionary conservation will be central to discussion of mechanisms governing developmental processes. Additional topics: developmental plasticity, impact of epigenetic and environmental factors, and basis of disease gleaned from developmental biology research. Live embryos will complement and reinforce concepts covered in class. Enrollment limited to 36. Expected: BIOL 0200 (or equivalent), and one course in genetics, cell biology or embryology. Spr BIOL1310 S01 24764 MW 8:30-9:50(02) (K. Wharton)

BIOL 1330. Biology of Reproduction
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 24447 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 16479 W 3:00-5:30(17) (J. Witman)

BIOL 1430. Population Genetics
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 genomic-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 16480 MWF 11:00-11:50(16) (D. Weinreich)

BIOL 1450. Community Ecology
This course will explore foundational concepts in community ecology, and will draw on examples and case studies from marine and terrestrial ecosystems, including species-rich tropical rain forests and coral reefs, the marine intertidal and benthic environments, and species-poor forests and grasslands of the temperate zone. Overarching themes will emphasize theoretical frameworks to understand the evolutionary origins and maintenance of this biological diversity. This will be accomplished using traditional lectures, weekly student-led discussions, readings of the primary literature, and class activities. Expected background: BIOL 200 or equivalent placement; and BIOL 0420; OR instructor permission.

Fall BIOL1450 S01 24921 MWF 10:00-10:50(03) (J. Kellner)

BIOL 1465. Human Population Genomics
An introduction to human genomics and the evolutionary forces that shape observed genetic variation across humans today. Topics will include the relationship among humans and other primates, human population genetics and genomics, and examples of the concomitant evolution of both cultural traits and domesticated organisms. Assignments include a class presentation and reviewing papers on a selected topic. Expected background: BIOL 0470 or 0480, and BIOL 0495, PHP 2500, or equivalent. Enrollment limited to 25. Instructor permission required.

Fall BIOL1465 S01 16080 TTh 1:00-2:20(08) (E. Huerta-Sanchez)

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 15752 TTh 9:00-10:20(02) (D. Sax)

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.

Spr BIOL1495 S01 24918 MWF 9:00-9:50(02) "To Be Arranged"

BIOL 1520. Innate Immunity
Innate immunity is the initial response to microbes that prevents infection of the host. It acts within minutes to hours, allowing the development of the adaptive response in vertebrates. It is the sole mechanism of defense in invertebrates such as insects. The components and mechanisms dictating this response are explored. Prerequisite: BIOL 0530. Enrollment limited to 30. Graduate students must obtain instructor permission.

Fall BIOL1520 S01 15695 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 24448 TTh 2:30-3:50(11) (J. Bender)
Biol 1545. Human Genetics and Genomics
This course will exemplify the power of genetically informed approaches to understanding human biology. It is intended for advanced undergraduate students and graduate students; prerequisites include BIOL0470 or equivalent. The course is based in lectures, reading material (textbook and primary literature), and in-class discussions. Course topics include: medical genetics and genomics; methods to study human genotypes and related phenotypes; industry-related topics; and ethical and societal implications of genome science. It will benefit students with career interests in basic science, medicine, biotechnology, or science policy. Enrollment is limited to 20 students; selection will be based on seniority, prerequisites, and registration order.

Spr 24449 TTh 9:00-10:20(01) (E. Morrow)

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 24351 MWF 11:00-11:50(04) (R. Bungiro)

The goal of this course is for students to develop a solution that uses data science and informatics approaches to address a biomedical or health challenge. This course will teach informatics and data science skills needed for public health and biomedicine research. Emphasis will be given to algorithms used within the context of biomedical research and healthcare, including those used in biomolecular sequence analysis, electronic health records, clinical decision support, and public health surveillance. This course has been developed as a Course-based Undergraduate Research Experience (CURE), where students will gain experience with the scientific method, its application, and presentation.

Spr 24391 TTh 10:30-11:50(09) (N. Sarkar)

Emphasizes the understanding of molecular mechanisms of viral pathogenesis. Begins with a general introduction to the field of virology and then focuses on the molecular biology of specific viruses that are associated with human disease. Lectures based on current literature. Prerequisite: BIOL 0280, 0470, or 0530, or instructor permission.

Fall 15699 MWF 9:00-9:50(01) (A. Jamieon)

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 15736 TTh 10:30-11:50(13) (N. Sarkar)

This course covers the field of evaluation of health information systems (HIS) in a range of roles and environments, in the US and worldwide. It includes topics in health information system (HIS) design and deployment, healthcare workflow, quantitative and qualitative evaluation methods and socio-technical environment for HIS. Emphasis is given to understanding the range of evaluation questions that can be asked, identification of the key stakeholders, understanding available evaluation techniques, and designing rigorous but achievable studies. Examples will include Open Source systems, medical Apps, and economic evaluation, the role of evaluation frameworks and theories, and notable HIS successes and failures. Recommended: past or concurrent enrollment BIOL 1565 or a public health course covering clinical research.

Fall 15737 TTh 1:00-2:20(08) (H. Fraser)

Biol 1595. Artificial Intelligence in Biomedicine.
This course will teach the fundamental theory and methods of artificial intelligence (AI) alongside their application to the biomedical domain. It will give a representative overview of traditional methods as well as modern developments in the areas of (deep) machine learning, natural language processing and information retrieval. The course is designed to be accessible to non-computer science audiences and will not require extensive prior programming experience. The course will be accompanied by practical assignments applying the discussed techniques in a biomedical context. Understanding of formal theoretical knowledge will be assessed in a final exam.

Spr 24392 TTh 1:00-2:20(08) (C. Eckhoff)

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 a foundation 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 24352 MW 3:00-4:20(10) (R. Bungiro)

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 24623 TTh 10:30-11:50(09) (J. Plavicki)

Biol 1865. Toxicology.
Toxicology is the science that describes the adverse biological effects of exogenous chemical and physical stressors, including environmental, industrial, and agricultural chemicals and pharmaceuticals. This course will introduce the principal biological processes that determine an organism’s response to a toxicant, including absorption, distribution through a biological system, metabolism, elimination, and effects at the site(s) of action. We will discuss modern challenges in toxicology, such as assessing toxicity of mixtures and testing some of the thousands of untested chemicals in commerce. The material will be presented in lecture and student-led discussions, with readings from the toxicology literature. Suggested prerequisites include BIOL 0280 (biochemistry), CHEM 0350 (organic chemistry), and BIOL 800 (principles of physiology); or BIOL 1820 (Environmental Health and Disease) or BIOL 2860 (Molecular Mechanisms of Disease); or instructor approval.

Spr 25799 TTh 1:00-2:20(08) (D. Spade)

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 24919 MWF 11:00-11:50(04) (K. Evans)

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

BIOL 2000A. Current Topics in MCDB - RNA Regulation: Beyond the Central Dogma.
The central dogma of molecular biology has long held that the primary role of RNA is to serve as an intermediary to convert the information stored in DNA into functioning proteins. However, it is now clear that RNA does not merely play a passive role in the information transfer process from DNA to protein. This course will focus on the many roles played by RNA molecules in both normal cellular processes and disease states. Papers from the primary literature will be chosen to explore this topic, primarily through student-led discussions. Open to graduate students and advanced undergraduates with appropriate coursework.

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.

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

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.

BIOL 2030. Foundations for Advanced Study in the Life Sciences.
A double-credit graduate course on multidisciplinary experimental approaches to biological questions. Focusing on primary literature, 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.

BIOL 2075. Evaluation of Health Information Systems.
This course covers the field of evaluation of health information systems (HIS) in a range of roles and environments, in the US and worldwide. It includes topics in health information system (HIS) design and deployment, healthcare workflow, quantitative and qualitative evaluation methods and socio-technical environment for HIS. Emphasis is given to understanding the range of evaluation questions that can be asked, identifying the key stakeholders, understanding available evaluation techniques, and designing rigorous but achievable studies. Examples will include Open Source systems, medical Apps, and economic evaluation, the role of evaluation frameworks and theories, and notable HIS successes and failures.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
**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 the in-depth 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 15838 W 4:00-6:30 (17) (J. Morgan)

**BIOL 2145. Molecular Targets of Drug Discovery.**
This course emphasizes the role of cell physiology in the identification of drug targets and the development of novel drugs. Specific protein drug targets such as G-protein coupled receptors will be examined in detail from identifying a target to development of drugs for that target and the physiological consequences. Prerequisite: BIOL 0800. Enrollment limited to 20. Preference is given to graduate students in Biotechnology and BME, especially Masters students. Graduate students from other programs may enroll if permission of the instructor is granted.

Fall BIOL2145 S01 17800 T 3:00-6:00 (D. Horrigan)
Spr BIOL2145 S01 24481 T 10:00-12:20 (09) (D. Horrigan)

**BIOL 2150. Scientific Communication.**
Focused on the effective dissemination of scientific information in the molecular biosciences. Students will develop the skills necessary to effectively communicate scientific ideas, experiments, and results relating to their PhD dissertation projects through activities common to the profession including writing a grant proposal and presenting research work orally. Each of the activities will be dissected into key components and peer review. Required for most second-year PhD students in the MCB Graduate Program. Other qualified students may enroll with instructor’s permission.

Fall BIOL2150 S01 15800 W 2:00-5:30 (07) (J. Bender)
Fall BIOL2150 S02 15802 W 2:00-5:30 (07) (S. Ramachandran)

**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 24485 Arranged (E. Mathiowitz)

**BIOL 2167. In Vitro Models for Disease.**
This course will use case studies to examine high burden diseases, their pathophysiology, treatment, and the models used to study the disease. Literature will be used to discuss the current models for the disease and the associated limitations of each of these models. The course will also cover the use of animals in research and how new in vitro models could be used to decrease their use. This course is intended for graduate students in biology, engineering, or related fields. Prerequisites: BIOL 0200 and 0800, or equivalent. Enrollment limited to 20 graduate students.

Spr BIOL2167 S01 24486 M 1:00-3:00 (08) (J. Schell)

**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 15838 MWF 10:00-11:30 (14) (D. Horrigan)

**BIOL 2180. Experiential Learning Industry, ELI.**
Experiential Learning in Industry is restricted to biomedical engineering (BME) Sc.M. and biotechnology (Biotech) Sc.M. students, 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 BIOL2190 S01 15839 Arranged (J. Morgan)
Spr BIOL2190 S01 24487 Arranged (J. Morgan)

**BIOL 2190. MPP 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 15840 M 12:00-1:30 (15) (D. Horrigan)

**BIOL 2222B. Current Topics in Functional Genomics.**
A technological revolution in genomics has exponentially increased our ability to gather biological data. A host of new methods and types of analysis has arisen to accommodate this dramatic shift in data collection. The broad scope of inquiry has ushered in an era of “system-wide” approaches and brute-force strategies where rare signals can be detected and studied. In this seminar we will cover papers that embody this new approach. Students typically have taken an advanced undergraduate-level course in biology.

Spr BIOL2222B S01 24906 Arranged (W. Fairbrother)

**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 15841 T 4:30-7:00 (09) (E. Darling)

**BIOL 2240. Biomedical Engineering and Biotechnology Seminar.**
See Biomedical Engineering and Biotechnology Seminar (BIOL 2230) for course description.

Spr BIOL2240 S01 24488 T 4:30-7:10 (18) (J. Morgan)

**BIOL 2245. Blood Substitutes: Principles and Therapeutics Development.**
Blood serves many critical functions including respiratory gas transport, hemostasis and host defense. Plasma and cellular components of blood, their functional mechanisms, pathophysiological 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 15844 MW 10:30-11:50 (16) (H. Kim)

**BIOL 2270. Advanced Biochemistry.**
(Undergraduate students should register for BIOL 1270.)

Fall BIOL2270 S01 15803 TH 2:30-3:50 (03) (A. Salomon)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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. Enrollment limited to 20; instructor permission.
Fall BIOL2300 S01 15846 M 3:00-5:30(05) (N. Fawzi)

BIOL 2310. Developmental Biology.
Covers the molecular and cellular events of development from fertilized egg to adult. Genetic basis of body form, cell fate specification and differentiation, processes controlling morphogenesis, growth, stem cells and regeneration are examined. Differential gene regulation, intercellular signaling and evolutionary conversation are central to discussion of mechanisms governing developmental processes. Additional topics: developmental plasticity, impact of epigenetic and environmental factors, and basis of disease gleaned from developmental biology research. Live embryos complement and reinforce concepts covered in class. Expected: BIOL200 (or equivalent), and one course in genetics, embryology, cell biology or molecular biology. Enrollment limited to 36. (Undergraduate students register for BIOL 1310.)
Spr BIOL2310 S01 24766 MW 8:30-9:50(02) (K. Wharton)

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 crucial 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 24453 Th 2:00-3:20(11) (J. Sedivy)

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 15758 Arranged(11) (D. Rand)
Fall BIOL2430 S02 17278 Arranged(11) (T. Kartzinel)

BIOL 2440. Topics in Ecology and Evolutionary Biology.
See Topics In Ecology And Evolutionary Biology (BIOL 2430) for course description.
Spr BIOL2440 S01 24416 Arranged (D. Rand)

BIOL 2450. Exchange Scholar Program.
Fall BIOL2450 S01 15257 Arranged "To Be Arranged"
Fall BIOL2450 S02 15258 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 24489 Th 9:30-12:00(09) (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 24454 Th 2:30-3:50(11) (J. Bender)

BIOL 2545. Human Genetics and Genomics.
This course will exemplify the power of genetically informed approaches to understanding human biology. It is intended for advanced undergraduate students and graduate students; prerequisites include BIOL0470 or equivalent. The course is based in lectures, reading material (textbook and primary literature), and in-class discussions. Course topics include: medical genetics and genomics; methods to study human genotypes and related phenotypes; industry-related topics; and ethical and societal implications of genome science. It will benefit students with career interests in basic science, medicine, biotechnology, or science policy. Enrollment is limited to 20 students; selection will be based on seniority, prerequisites, and registration order.
Spr BIOL2545 S01 24455 Th 9:00-10:20(01) (E. Morrow)

BIOL 2560. Advanced Virology.
The emphasis of this course will be on understanding the molecular mechanisms of viral pathogenesis. It will begin with a general introduction to the field of virology, a basic review of the immune response to viruses, and then focus primarily on the molecular biology of specific viruses that are associated with clinical human disease. Lectures will be based on the current literature and provide historical context. Students will become familiar with primary literature and produce their own original research proposal by the end of the semester.
Fall BIOL2560 S01 15700 MWF 9:00-9:50(01) (A. Jamieson)

BIOL 2595. Artificial Intelligence in Biomedicine.
This course will teach the fundamental theory and methods of artificial intelligence (AI) alongside their application to the biomedical domain. It will give a representative overview of traditional methods as well as modern developments in the areas of (deep) machine learning, natural language processing and information retrieval. The course is designed to be accessible to non-computer science audiences and will not require extensive prior programming experience. The course will be accompanied by practical assignments applying the discussed techniques in a biomedical context. Understanding of formal theoretical knowledge will be assessed in a final exam.
Spr BIOL2595 S01 24393 Th 1:00-2:20(08) (C. Eickhoff)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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. The organizational meeting is set for Wednesday Jan 23 at 2:30PM in this 6th floor conference room (BMC 605). There is also a requirement for a previous immunology course.
Spr BIOL2640A S01 24353 Arranged (C. Biron)

BIOL 2860. Molecular Mechanisms of Disease.
BIOL 2860 is designed for graduate students and focuses on the underlying causes of human disease. The course will explore the mechanistic basis of disease, including in the context of immune responses and major challenges in controlling viral infections. 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. Emphasis will be placed on the development of presentation skills and research design. Readings will be assigned from Robbins Basic Pathology 10th Edition (2016), Junqueira’s Basic Histology Text & Atlas 14th Edition (2016), primary literature, and reviews. Both textbooks are available online through the library website.
Fall BIOL2860 S01 15849 MF 1:30-3:00(07) (T. Bartnikas)

BIOL 2865. Toxicology.
Toxicology is the science that describes the adverse biological effects of exogenous chemical and physical stressors, including environmental, industrial, and agricultural chemicals and pharmaceuticals. This course will introduce the principal biological processes that determine an organism’s response to a toxicant, including absorption, distribution through a biological system, metabolism, elimination, and effects at the site(s) of action. We will discuss modern challenges in toxicology, such as assessing toxicity of mixtures and testing some of the thousands of untested chemicals in commerce. The material will be presented in lecture and student-led discussions, with readings from the toxicology literature. Suggested prerequisites include BIOL 0280 (biochemistry), CHEM 0350 (organic chemistry), and BIOL 800 (principles of physiology); or BIOL 1820 (Environmental Health and Disease) or BIOL 2860 (Molecular Mechanisms of Disease); or instructor approval.
Spr BIOL2865 S01 25800 TTh 1:00-2:20(08) (D. Spade)

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 15259 Arranged "To Be Arranged" Spr BIOL2970 S01 24158 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 residency requirement and are continuing research on a full time basis.
Fall BIOL2990 S01 15260 Arranged "To Be Arranged" Spr BIOL2990 S01 24159 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.

Fall 2019
The following courses may be taken for concentration credit. Please see the sponsoring department for the time and location of each course.

Africana Studies
AFRI 1920 Health Inequality in Historical Perspective
Cognitive, Linguistic and Psychological Sciences
CLPS 1195 Life Under Water in the Anthropocene

Spring 2020
The following courses may be taken for concentration credit. Please see the sponsoring department for the time and location of each course.

Africana Studies
AFRI 1930 Race, Difference and Biomedical Research: Historical Considerations

BioMed-Neuroscience

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 NEUR0106 S01 24727 MWF 1:00-1:50(06) (J. Simmons)

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 24728 TTh 9:00-10:20(01) (C. Azemnan)

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 0106 or the equivalent. First year and Graduate students require instructor approval.
Fall NEUR1030 S01 16265 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.
Spr NEUR1040 S01 24729 TTh 10:30-11:50(09) (K. Kaun)

NEUR 1440. Mechanisms and Meaning of Neural Dynamics.
We humans can shift our attention, perceive new objects, make complex motions, and adjust each of these behaviors within fractions of a second. 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. In addition to lectures and readings, students will learn how to build computational models to simulate neural dynamics at various scales from single neurons to networks, using Matlab and the Human Neocortical Neuronsolver. Computational modeling will be taught hands-on in an interactive lab session each week. Please request override through Courses@Brown.
Fall NEUR1440 S01 17753 TTh 1:00-2:20(08) (C. Moore)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
NEUR 1540. Neurobiology of Learning and Memory.
Exploration of learning and memory from the molecular to the behavioral level. Topics will include declarative and procedural memory formation and storage, associative and non-associative learning, cellular and molecular mechanisms for learning, and disorders affecting learning and memory. Examples will be drawn from numerous brain areas and a variety of model systems, including humans. Students will gain experience interpreting experiments from primary literature. Prerequisite: NEUR 1020. Spr NEUR1540 S01 24731 MW 11:00-11:50(04) (M. Linden)

NEUR 1560. Developmental Neurobiology.
The course will explore core concepts of developmental biology in the context of the developing nervous system. Topics will include: neuronal specification, cell migration, axon guidance, synapse formation, and neural plasticity. Students will gain experience with the primary literature and learn about cellular and molecular mechanisms of brain development and the tools and model organisms used to study them. To express interest, please add this course to your primary cart. The decision will be made based on a variety of factors including: seniority, concentration requirement, etc. Spr NEUR1560 S01 24732 W 3:00-5:30(10) (J. Jaworski)

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. Spr NEUR1600 S01 24733 W 1:00-5:50(06) (J. Stein)

NEUR 1630. Open-Source Big Data Neuroscience Lab.
Recent technological developments have transformed neuroscience research, enabling us to generate comprehensive ‘big data’ sets that are often shared freely amongst the neuroscience community. This lab course will explore strategies to effectively use such open-sourced neuroscience data sets. Students will identify fundamental open questions in brain science and develop strategies to mine open-source sequencing, imaging and connectivity data to address their research questions. Fall NEUR1630 S01 17589 Th 10:30-11:50(13) (A. Fleischmann)

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 nervous tissue, and discussion of clinical cases. Prerequisites: NEUR 0010, NEUR 1020, and NEUR 1030. Please request an override through C@B. Please keep in mind that decisions on overrides may not be made until the first meeting of the course. Fall NEUR1650 S01 16272 TTh 2:30-3:50(03) (D. Berson)

NEUR 1680. Computational Neuroscience.
A lecture and computing lab course providing an introduction to quantitative analysis of neural activity and encoding, as well as modeling of neurons and neural systems. Emphasizes Matlab-based computer simulation. Prerequisites: NEUR 0010, 1020 or 1030; APMA 1650 or equivalent; APMA 0330 or 0350 or equivalent. Experience with Matlab desirable. Please request an override through C@B. Please keep in mind that decisions on overrides may not be made until the first meeting of the course. Fall NEUR1680 S01 17538 MW 3:00-4:20(17) (L. Bienenstock)

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 monoallelic diseases (e.g. Fragile X Syndrome, Duchenne Muscular Dystrophy and Tuberous Sclerosis) as well as genetically complex disorders, such as Autism, Schizophrenia and Alzheimer's Disease. Emphasis will be on the cellular and molecular basis of these disorders and how insights at these levels might lead to the development of therapies. Prerequisites: NEUR 1020. BIOL 0470 suggested. Spr NEUR1740 S01 24734 MW 8:30-9:50(02) (J. Fallon)

NEUR 1930G. Disease, Mechanism, Therapy: Harnessing Basic Biology for Therapeutic Development.
The recent surge in understanding the cellular and molecular basis of neurological disease has opened the way for highly targeted drug discovery and development. In this course we will use several case studies to illuminate how mechanistic insights are being translated into novel therapeutic approaches. Please request an override through C@B. Please keep in mind that decisions on overrides may not be made until the first meeting of the course. Fall NEUR1930G S01 16280 Arranged (J. Fallon)

NEUR 1930N. Region of Interest: An In-Depth Analysis of One Brain Area.
An in-depth exploration of one region of the brain. Topics will include: cell types and properties; synaptic properties; plasticity; connections to other brain areas; sub-divisions within the area; the region's role in sensation and perception; the region's role in action and behavior; the region's role in learning and memory; and diseases and disorders. Students will gain a deeper understanding of concepts and principles that apply throughout the brain. Students will gain experience with primary literature and learn about techniques for studying the area. Topic Fall 2019: Amygdala. Please request an override through C@B. Please keep in mind that decisions on overrides may not be made until the first meeting of the course. Fall NEUR1930N S01 16276 W 12:30-3:00(07) (M. Linden)

NEUR 1940G. Drugs and the Brain.
This is a seminar course devoted to the reading and analyzing of original research articles dealing with the interaction between drugs and the brain. This will include drugs used to analyze normal brain function, as well as drugs of abuse and drugs used for therapeutic purposes. This course is intended for undergraduate and graduate students with a strong background in neuropharmacology. 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. Limited to 15. Spr NEUR1940G S01 24738 Arranged (R. Patrick)

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

NEUR 2010. Graduate Proseminar in Neuroscience.
A study of selected topics in experimental and theoretical neuroscience. Presented by neuroscience faculty, students, and outside speakers. A required course for all students in the neuroscience graduate program. Fall NEUR2010 S01 16277 Arranged (G. Barnea)

See Graduate Pro-Seminar In Neuroscience (NEUR 2010) for course description.
Spr NEUR2020 S01 24735 Arranged (G. Barnea)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
NEUR 2030. Advanced Molecular and Cellular Neurobiology I. Focuses on molecular and cellular approaches used to study the CNS at the level of single molecules, individual cells and single synapses by concentrating on fundamental mechanisms of CNS information transfer, integration, and storage. Topics include biophysics of single channels, neural transmission and synaptic function. Enrollment limited to graduate students.

Fall: NEUR2030 S01 16278 MW 9:00-12:00(14) (K. O'Connor-Giles)

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 limited to graduate students.

Spr: NEUR2040 S01 24736 Arranged (G. Barnea)

NEUR 2050. Advanced Systems Neuroscience. Focuses on systems 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 16279 W 1:00-4:00(07) (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 24737 Arranged "To Be Arranged"

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 15321 Arranged (D. Sheinberg)

Spr: NEUR2970 S01 24207 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. S/NC

MED 2110. Introduction to Medical Sciences and Patient Care. This 2-week intensive course introduces students to the wide variety of topics explored in the Master's of Medical Sciences program, with a focus on patient care aspects. The course combines seminar classroom instruction with field work/immersion at community healthcare sites. Topics covered include: biopsychosocial model of healthcare; intersection between science, social science and humanities in healthcare; introduction to community health centers; professionalism in healthcare; basic healthcare communication skills; quality improvement skills; and strategies for mastery of basic science knowledge. Students will be assessed using multiple methods including: seminar participation, reflective essays/field notes, attendance at field-work sites, & assessment from community mentors.

Fall: MED2110 S01 17802 Arranged (G. Anandarajah)

MED 2120. Patient Care in Complex Systems I. This is the second of a three course series for Master of Medical Sciences students. This course introduces students to the variety of complex factors affecting health, imparting both theoretical knowledge and practical skills. Teaching methods: interactive seminars and experiential learning at community healthcare sites with members of multidisciplinary teams. Topics covered: healthcare systems, social determinants of health, roles of interdisciplinary healthcare team members, quality improvement, and epidemiology. Students will begin developing a project at their clinical sites which will be implemented in spring semester. Student assessment includes: seminar participation, reflective essays, attendance at field-work sites, and assessment from community mentors. Pre Requisites: MED 2110

Fall: MED2120 S01 17804 Arranged (G. Anandarajah)

MED 2140. Human Histology. Human Histology provides an in-depth examination of the basic architecture of the body. Fundamental to this understanding is the cell and how during early development cells in the aggregate undergo specialization as tissues, which are the building blocks of the body. This course focuses first on the biology of the four basic tissues (epithelium, connective tissue, muscle and nerve) and second, how they contribute to the functional anatomy of all organs and systems.

Fall: MED2140 S01 17805 Arranged (J. Ou)

MED 2045. Quantitative Reasoning. In this course, students will be introduced to fundamental concepts in clinical epidemiology and basic statistics, as they relate to population and clinical research. This course is intended to teach students both the basic knowledge required to develop and interpret clinical studies as well as the skills in order to conduct basic statistical analyses.

Fall: MED2045 S01 17916 Arranged "To Be Arranged"

MED 2046. Leadership in Health Care. This course emphasizes practical application of teamwork and leadership skills across multiple settings. Leadership in Health Care is a master's level course for second year medical students enrolled in the Primary Care-Population Medicine (PC-PM) program. Through interactive classroom sessions, field work in health care advocacy, and a team-based "leadership action project", students will develop foundational leadership skills. The first formal leadership course at Alpert Medical School, Leadership in Health Care will contribute to the PC-PM program's ultimate goal of preparing physician leaders who will improve the quality of health care and wellness of the population.

Fall: MED2046 S01 17915 Arranged "To Be Arranged"

Medical Education

MED 2030. Research Methods in Population Medicine. The thesis requirement for the Master of Science degree in Population Medicine is an integral component of the Primary Care-Population Medicine program at Brown University. This course will help students develop and demonstrate the necessary research skills to formulate a population medicine research question and then design, conduct and write a manuscript presenting a research study that will satisfy the thesis requirements. The course itself has three parts:

An introductory primary on biostatistics A research methodology seminar series A journal club in which the biostatistics and research methodology will be integrated in the analysis and critique of studies related to population medicine.

Fall: MED2030 S01 17870 Arranged "To Be Arranged"

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
MED 2150. General Pathology.
Pathology is the study of the causes, mechanisms, and consequences of disease. In General Pathology students study in detail the cell and tissue alterations that lead to the production of human diseases. To uncover such alterations, morphological observations are correlated with studies involving molecular biology, biochemistry, and genetics. In studying the pathogenesis of human disease we pay close attention to epidemiological parameters, population health, aging, and to environmental and occupational health problems. General Pathology been integrated, whenever possible, with other courses in the Fall Semester of the Gateways Program, in order to maximize learning opportunities.
Fall MED2150 S01 17806 Arranged (L. Dumenco)

MED 2160. Human Anatomy 1.
This course explores the anatomical organization of the human body, viewing anatomical structures as a product of development and functional demand. Human Anatomy provides an opportunity for students of diverse backgrounds, interests, and goals to emerge with an understanding of the human body as a cornerstone of medical science. The course uses a combination of lectures, on-line modules, and mandatory laboratory sessions examining human cadaver preparations, to impart broad conceptual and in-depth knowledge of this subject.
Fall MED2160 S01 17607 Arranged (A. Chew)

MED 2170. Scientific Foundations of Medicine.
Scientific Foundations of Medicine is an integrated cross-disciplinary course that introduces the fundamental basic science principles relevant to the study of health, disease mechanisms and clinical medicine. As such the course consists of six blocks of core topics that incorporate foundational principles of molecular biology, cellular and metabolic biochemistry, nutritional science, cell physiology, inheritance patterns, mechanisms of genetic disorders, and immunology. Grounding in these scientific principles gives students insight into the biological complexity and genetic diversity that underlie disease processes.
Fall MED2170 S01 17608 Arranged 'To Be Arranged'

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.

Program in Liberal Medical Education

PLME 0400. Introduction to Medical Illustration.
This semester course explores the field of medical illustration and its many facets. Depiction of diseases, anatomy, medical practices and surgical procedures has been around antiquity. Not only has medical illustration evolved over the centuries, it has played the role of historian, documenting the beliefs and knowledge of its time. Today, medical illustration is as present as ever despite the advent of other methods of medical documentation, including photography and videography.
Fall PLME0400 S01 17461 Arranged (F. Lukes)

PLME 0600. Convergence of Medicine, Technology and Public Policy in the US, As Told by the Failing Kidney.
Technological advances, public policy, and corporate interests are assuming ever-expanding roles in US health care. This course explores the conjunction of the introduction of hemodialysis, a unique 1972 expansion of the Medicare program to cover the costs of end-stage renal disease (ESRD) and the simultaneous spread of corporate-run, for-profit dialysis centers. This course explores how the confluence of technological advances, public policy initiatives, and corporate consolidation led to major consequences in the treatment advanced kidney disease. The course reviews the history, treatment, implications of the technological imperative and the evolution of the medical-industrial complex through ESRD in American medicine.
Fall PLME0600 S01 15375 T 4:00-6:30(09) (A. Cohen)

PLME 1000. PLME Senior Seminar in Scientific Medicine.
This course is an interdisciplinary and integrative science course that will supplement the preparation of both PLME and pre-medical students for the study of medicine in the 21st century. The course will use a case-based approach to relevant and contemporary subjects in medicine and health care, such as: biological systems and their interactions; diagnosis and therapy optimization; and the humanistic aspects of patient care. The course is intended for seniors interested in attending medical school but will preferentially enroll PLME students. Prerequisite: PLME competency in Biology, Chemistry (inorganic and organic), Physics, and introductory calculus. Enrollment limited to 40. S/NC
Fall PLME1000 S01 16478 MW 8:30-9:50(01) (J. Ip)

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-focused 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.
Fall BEO1930A S01 16966 TTh 1:00-2:20(08) (L. DiCarlo)

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-focused 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 ENGN 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.
Fall BEO1930B S01 16967 TTh 1:00-2:20(08) (S. Petteruti)

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.
Fall BEO1930C S01 16968 TTh 1:00-2:20(08) (B. McNally)

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.
Spr BEO1940A S01 25525 TTh 1:00-2:20(08) (B. McNally)

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.
Spr BEO1940B S01 25526 TTh 1:00-2:20(08) (S. Petteruti)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Course Descriptions

Course allows concentrators to complete BEO 1930 as an independent study due to scheduling conflicts.

Chemistry

CHEM 0080B. Molecular Structures in Chemistry and Biology.
This course will consist of a survey of historical developments and concepts of three dimensional structures of molecules. The course will conclude with a survey of the current state of the art of structure determination and 3D structure motifs for small molecules, nanomaterials and biological macromolecules. This freshman only seminar will be strictly limited to a maximum of 19 students.
Fall CHEM0080B S01 16284 TTh 9:00-10:20(02) (P. Williard)

CHEM 0100. Introductory Chemistry.
Explores stoichiometry, atomic and molecular structure, chemical bonding, solutions, gases, chemical reactions, equilibria, thermodynamics. Three hours of lecture, one conference per week, no laboratory section. S/NC.
Fall CHEM0100 S01 16285 TTh 9:00-10:20(02) (V. Colvin)

CHEM 0330. 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 0330 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.
Fall CHEM0330 M01 16294 Arranged 'To Be Arranged'
Fall CHEM0330 S01 16292 MWF 10:00-10:50(18) (M. Zimmnt)
Fall CHEM0330 S02 16293 TTh 10:30-11:50(18) (C. Rose-Petruck)
Spr CHEM0330 M01 24772 Arranged 'To Be Arranged'
Spr CHEM0330 S01 24771 TTh 10:30-11:50(09) (O. Chen)

CHEM 0332. Equilibrium, Rate, and Structure - Tutorial.
The CHEM 0332 tutorial program offers students the opportunity to master the concepts taught in the fall semester CHEM 0330: Equilibrium, Rate and Structure course by focusing on active problem solving. Students who struggle in the fall CHEM 0330 course may be invited to join the tutorial program. Students accepted into the tutorial program begin by reviewing course and reaction stoichiometry at the beginning of the spring semester. Tutorial students enroll in CHEM 0332 during the spring semester to complete their studies of equilibrium, acid-base equilibria, thermodynamics, atomic and molecular structure and kinetics. Students in the CHEM 0332 tutorial program complete weekly problem sets during the spring semester and participate in two mandatory, regularly scheduled problem sessions during each week of the spring semester.
To qualify for consideration, the student must be struggling in the midterm exams and on track to pass the laboratory. Accepted students receive a grade of incomplete for the Fall CHEM 0330 course. Upon successful completion of the CHEM 0332 tutorial program in the spring semester, the incomplete in Fall CHEM 0330 is replaced by the student’s tutorial program grade.
An override by Ms Sheila Quigley is required.
Spr CHEM0332 S01 24775 Arranged 'To Be Arranged'

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, including modern instrumental methods. Three hours of lecture and five hours of prelaboratory and laboratory. Prerequisite: CHEM 0350.
Students MUST register for a lecture section, a lab and a conference.
If you previously completed CHEM 0350 laboratory but received a grade of no credit in the course, please register for lab section 11.
Fall CHEM0350 M01 16298 Arranged 'To Be Arranged'
Fall CHEM0350 S01 16297 MWF 9:00-9:50(01) (A. Basu)

CHEM 0500. Inorganic Chemistry.
Examines the chemistry of main group and transition metal elements with treatment of covalent bonding and molecular structure along with the methods of studying inorganic compounds and reactions. Three hours of lecture and five hours of prelaboratory and laboratory attendance. Prerequisite: CHEM 0360.
Students MUST register for a lecture section and a lab.
Spr CHEM0500 S01 24782 MWF 11:00-11:50(04) (E. Victor)

CHEM 0970. Undergraduate Research.
Prerequisite: permission of the staff. Permission should be requested before the end of the preceding semester. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
CHEM 0980. Undergraduate Research.
See Undergraduate Research (CHEM 0970) for course description.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

CHEM 0999. Chemistry and Art.
"Chemistry and Art" is an interdisciplinary course that explores different chemical concepts and techniques through the lenses of art and art history. The topics covered include paint and painting, stained glass; pottery and porcelains; gemstones and jewelry; color and art conservation. Drawing from early artistic texts, we will take a historically informed approach, connecting medieval stained-glass techniques, early pigmentation sourcing, and Qin dynasty pottery work to modern chemical explanations. Throughout the course, lectures, discussions, hands-on activities, and writing are totally integrated and the chemistry principles and techniques behind art objects and art-making are introduced through a series of case studies. Students are asked to request overrides through Courses@Brown. Overides will be granted after the first day of the class.
Fall CHEM0999 S01 17358 W 3:00-3:50(17) (L. Wang)

CHEM 1060. Advanced Inorganic Chemistry.
Covers the physical and chemical properties of transition metal compounds as well as current research topics in inorganic chemistry. Laboratory is designed for the practice of modern inorganic chemistry through the synthesis and spectroscopic characterization of air-sensitive transition metal compounds. Prerequisite: CHEM 0500.
Fall CHEM1060 S01 16305 MW 8:30-9:50(01) (E. Kim)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
CHEM 1140. Physical Chemistry: Quantum Chemistry. An introduction to the quantum theory of chemical systems. Elements of quantum mechanics; electronic structure of atoms and molecules; study of molecular structure and behavior by spectroscopy; chemical bonding are all explored. Prerequisites: CHEM 0330, MATH 0180 or equivalent, PHYS 0030 and PHYS 0040 or PHYS 0050 and PHYS 0060 or PHYS 0070 and PHYS 0470 or ENGN 0030 and ENGN 0040.

Fall CHEM1140 S01 16311 MWF 10:00-10:50(14) (R. Stratt)

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

Spr CHEM1150 S01 24783 MW 10:00-10:50(03) (R. Stratt)

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

Spr CHEM1160 S01 24784 MW 1:00-4:50(06) (G. Diebold)

CHEM 1230. Chemical Biology. This course covers topics at the interface of chemistry and biology and, specifically, the use of chemical tools to probe biological systems. Using examples from the recent literature, we will discuss using the central methods of chemistry, namely the ability to design and synthesize compounds with a particular set of properties, to analyze biological problems. Specific topics include molecular recognition of DNA, artificial enzymes, small molecule sensors, and in vivo imaging of proteins, nucleic acids, and cell-surface carbohydrates. Prerequisites: CHEM 0360 and BIOL 0280. If enrollment exceeds the limit, permission to enroll will be allotted in the order: 1) first year graduate students, 2) senior concentrators in Chemistry or Biochemistry 3) junior concentrators 4) other students. Students who have registered or have permission to enroll must attend the first three classes or risk losing their places to someone on the waiting list.

Spr CHEM1230 S01 25231 TTh 9:00-10:20(01) (S. Delaney)

CHEM 1240. Biochemistry. Examines the chemical, mechanistic, and structural basis for enzymatic catalysis. Uses examples from the recent literature to examine how the experimental and conceptual tools of chemical synthesis, isotopic labeling, stereochemistry, enzymeology, 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 0290). Enrollment limited to: 25 students, written permission required.

Fall CHEM1240 S01 16714 TTh 9:00-10:20(02) (J. Morin)

CHEM 1450. Advanced Organic Chemistry. Lectures cover topics of current interest in organic reaction mechanisms, synthesis, and structure determination. Laboratory emphasizes spectroscopic and separation techniques and modern synthetic methods. Prerequisite: CHEM 0360. Students MUST register for a lecture section, conference and a lab.

Spr CHEM1450 S01 24786 MW 8:30-9:50(02) (C. Seto)

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

Spr CHEM1560G S01 26063 Arranged 'To Be Arranged'

CHEM 1560J. Topics in Bioinorganic Chemistry. Covers current topics of bioinorganic chemistry with review of fundamental inorganic and biological chemistry. Topics include metal ion transport and storage, oxygen metabolism, electron transfer, respiration and photosynthesis, metal ion receptors and signaling, hydrolytic chemistry, metallo-neurochemistry, and medicinal bioinorganic chemistry. Students are strongly urged to complete both CHEM 0500 and CHEM 0360 prior to this special topics course.

Spr CHEM1560J S01 26062 MW 8:30-9:50(02) (E. Kim)

CHEM 1560N. Organometallic Chemistry. Modern organometallic chemistry continues to find unique applications including next generation lighting displays, therapeutics and imaging, energy science, and green chemical synthesis. In this course we will briefly review fundamentals of inorganic chemistry (MO theory, ligand field theory, Pearson’s HSAB theory), and then delve into the structure, bonding, synthesis, reactivity, and mechanisms associated with organometallic complexes and their associated applications. Significant emphasis will be placed on effective oral and written communication skills, with frequent peer and instructor feedback provided. Prerequisites: CHEM 0360, CHEM 0500, PLEASE NOTE: This class is WRIT designated for Undergraduates Only. Graduate Students register for CHEM 2310.

Fall CHEM1560N S01 17432 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, BIOL0280 recommended.

Fall CHEM1700 S01 16340 MWF 11:00-11:50(16) (S. Sun)

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

Fall CHEM2010 S01 16341 TTh 1:00-2:20(08) (G. Diebold)

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

Spr CHEM2020 S01 24789 MW 9:00-9:50(02) (C. Rose-Petruck)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
CHEM 2310. Organometallic Chemistry. Modern organometallic chemistry continues to find unique applications including next generation lighting displays, therapeutics and imaging, energy science, and green chemical synthesis. In this course we will briefly review fundamentals of inorganic chemistry (MO theory, ligand field theory, Pearson’s HSAB theory), and then delve into the structure, bonding, synthesis, reactivity, and mechanisms associated with organometallic complexes and their associated applications. Significant emphasis will be placed on effective oral and written communication skills, with frequent peer and instructor feedback provided. Prerequisites: CHEM 0360, CHEM 0500. PLEASE NOTE: This class is WRIT designated for Undergraduates Only. Graduate Students register for CHEM 2310. Fall CHEM2310 S01 16342 TTh 10:30-11:50(13) (J. Robinson)

CHEM 2410. Physical Organic Chemistry. Detailed examination of organic reaction mechanisms, reactive intermediates, and the methods employed for their characterization (e.g., kinetics, free energy relationships, isotope effects, molecular orbital theory, spectroscopy, and product distributions). Topics may include concerted, free radical, elimination, and photochemical reactions, and the chemistry of radicals, carbocations, carbanions, and carbenes. Fall CHEM2410 S01 16343 MWF 9:00-9:50(01) (C. Seto)

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 16346 MWF 8:00-8:50(12) (C. Seto)

CHEM 2430. Synthetic Organic Chemistry. Methods, strategies, and mechanisms. Topics may include the chemistry of anions, cations, and radicals, concerted reactions, conformational analysis, and stereochemistry. Spr CHEM2430 S01 24791 MWF 11:00-11:50(04) (P. Williard)

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 16347 TTh 10:30-11:50(13) (R. Nanguneri)

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 24794 TTh 10:30-11:50(09) (B. Rubenstein)

CHEM 2870. Departmental Colloquia. Open to first year chemistry graduate students only. Fall CHEM2870 S01 16348 F 4:00-5:00(11) (P. Williard) Spr CHEM2870 S01 24792 F 4:00-5:00(15) (L. Wang)

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 15261 Arranged "To Be Arranged" Spr CHEM2970 S01 24160 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 residency requirement and are continuing research on a full time basis. Fall CHEM2990 S01 15262 Arranged "To Be Arranged" Spr CHEM2990 S01 24161 Arranged "To Be Arranged"

CHEM XLIST. Courses of Interest to Students wishing to Study Chemistry.

Classics

CLAS 0010. The Greeks. From poetry to philosophy, from music to economics to political theory, it is hard to find a subject of study that did not originate with the Greeks, at least in word. Biology? Greek. Physics? Still Greek. Math? Technology? Gym? You guessed it. Since we cannot escape the Greeks, in this class we will be on the lookout for them, reading the first classics of Western literature and discussing the great ideas behind them. All texts read in English.

CLAS 0210B. Death in Ancient Greece. Examines how ancient Greeks understood, described, and experienced death. Making use of sources in translation, considers how death is anticipated, imagined, feared, and sometimes sought. Also contrasts classical ideas with current experiences in our own society to see whether and how our assumptions concerning death are culturally determined. Enrollment limited to 19 first year students.

CLAS 0210T. Travelers in Greece: from Pausanias to Shirley Valentine. Ever since Pausanias the Periegete wrote his "Description of Greece" in the 2nd century CE, travelers have been inspired both to see the sights of Greece and to narrate their travels. The subject of this course is travel narratives about Greece, and our own journey will lead us to sites throughout the country. Yet we will also be using these narratives as launchpads for exploring the imaginary and imagined power of the Greek landscape: from its ancient status as seat of the gods to its modern appeal as a land of anonymity, relaxation and freedom for the wearied ‘westerner’.

CLAS 0350. Ancient Philosophy (PHIL 0350). Interested students must register for PHIL 0350.

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.

CLAS 0765. Witches and Vixens: Nasty Women in Ancient Greece and Rome. 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"?

CLAS 0810A. Alexander the Great and the Alexander Tradition. This course focuses on a single historical figure, Alexander the Great, using him as a point of departure for exploring a wide range of problems and approaches that typify the field of Classical Studies. How knowledge of Alexander has been used and abused provides a fascinating case study in the formation and continuous reinterpretation of the western Classical tradition.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
CLAS 1120B. Epic Poetry from Homer to Lucan.
Traces the rich history and manifold varieties of the genre of epic poetry in the literatures of ancient Greece and Rome beginning with Homer's Iliad and Odyssey (VI c. B.C.) and ending with Lucan's Civil War (l. c. A.D.). Masterpieces such as Virgil's Aeneid and Ovid's Metamorphoses are included. Original sources read in translation.
Spr CLAS1120B S01 25540 T Th 1:00-2:20(08) (P. Nieto Hernandez)

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.
Fall CLAS1120G S01 16958 MWF 11:00-11:50(16) (J. Pucci)

CLAS 1120L. Archaeology of Feasting.
No description available.
Spr CLAS1120L S01 25638 MWF 10:00-10:50(03) 'To Be Arranged'

CLAS 1120R. Social Conflict and Political Factions in the Roman Republic.
Traces the evolution of social conflict and political factions at Rome from the foundation to the dissolution of the Republic (C5-C1 BCE). Roman armies secured a vast empire of territory, raw materials, and manpower governed by the senate and the people of Rome itself. The influx of resources, however, destabilized Rome's constitution and upset political power balances at the city of Rome. How did the Romans—elites and masses—compete amongst themselves for the bounty of empire abroad and confront their own internal conflicts at home? Was concord possible, or were the developments of empire inconsistent with the constitution of the Republic?
Spr CLAS1120R S01 25639 MWF 2:00-2:50(07) 'To Be Arranged'

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 25533 MWF 2:00-2:50(07) (J. Pucci)

CLAS 1160. Classics of Indian Literature.
This course will introduce, in English translations, the most powerful examples of the literature of India. The course will introduce students to India's unparalleled literary richness by reading selections of the best poetry, drama, and narrative literature of Indian civilization from any of its many languages (Sanskrit, Tamil, Hindi, Bengali, etc., and English), ancient and modern.
Spr CLAS1160 S01 25541 T Th 2:30-3:50(11) (D. Buchta)

CLAS 1205. The Long Fall of the Roman Empire.
Once thought of as the "Dark Ages," this period of western European history should instead be seen as a fascinating time in which late Roman culture fused with that of the Germanic tribes, a mixture tempered by a new religion, Christianity. Issues of particular concern include the symbolic construction of political authority, the role of religion, the nature of social loyalties, and gender roles.
Fall CLAS1205 S01 16946 T Th 10:30-11:50(13) (J. Conant)

CLAS 1210. Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC.
From the end of the Bronze Age to the end of the Persian Wars is a period of considerable change in the Mediterranean and beyond. The Greek polis challenges the powers of the ancient Near East. Over seven centuries we meet Greek writing, Homeric epic, and the first historian (Herodotus). But the Greek world lay on the edges of the Ancient Near East and this course tries to offer a more balanced approach than the typically Hellenocentric perspective of the standard textbooks. CLAS 1210 addresses political, social and economic history. Literary, epigraphical and archaeological cultures provide the evidence.
Fall CLAS1210 S01 16957 MWF 9:00-9:50(01) (G. Oliver)

CLAS 1220. The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC.
The Greek world was transformed in less than 200 years. The rise and fall of Empires (Athens and Persia) and metamorphosis of Macedon into a supreme power under Philip II and Alexander the Great provide the headlines. The course covers an iconic period of history, and explores life-changing events that affected the people of the eastern Mediterranean and the topics that allow us to understand aspects of life and culture of the peoples of the eastern Mediterranean. and through these transformations, offers insights into the common pressures that communities confronted.
No prior knowledge of ancient history is required.
Spr CLAS1220 S01 25527 MWF 9:00-9:50(02) (G. Oliver)

(1) We examine theater and its relation to society, particularly, its reflection of legal culture (detections of murderers, adulterers, and young lovers); we also examine law’s ‘theatricality’ (‘productions’ of trials). (2) We also explore more broadly how dramas were performed, using as comparisons Japanese Noh and Kabuki (in each, for example, we find all-male casting). (3) Attention is also directed toward twentieth century receptions of these plays; we focus largely on Japanese productions, particularly of Yukio Ninagawa, mastermind of Japanese theater who directed numerous Greek tragedies and Shakespearean plays in different venues, absorbing and subverting phenomena of traditional Japanese theater.
Spr CLAS1750P S01 25718 T Th 10:30-11:50(09) (A. Scafuro)

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

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

Introduction to standard research methods and tools in major subdisciplines of classical philology and ancient history. Required of entering graduate students. Survey of various subdisciplines in order to become familiar with field and scholarly principles.
Fall CLAS2000 S01 16952 T Th 9:00-10:20(02) (S. Kidd)

CLAS 2450. Exchange Scholar Program.

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.
Fall CLAS2970 S01 15264 Arranged 'To Be Arranged'
Spr CLAS2970 S01 24162 Arranged 'To Be Arranged'

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 residency requirement and are continuing research on a full time basis.
Fall CLAS2990 S01 15265 Arranged 'To Be Arranged'
Spr CLAS2990 S01 24163 Arranged 'To Be Arranged'

CLAS XLIST. Courses of Interest to Classics Concentrators.
GREEK 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.
Fall GREK0100 S01 16950 MWF 2:00-2:50(07) (J. Hanink)

GREEK 0110. Introduction to Ancient Greek.
Intensive, one-semester introduction to Greek. No previous knowledge of Greek is required. This is a double credit course.
Spr GREK0110 S01 25899 TTh 12:00-12:50(02) ’To Be Arranged’

GREEK 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.
Spr GREK0200 S01 25897 MWF 2:00-2:50(07) ’To Be Arranged’

GREEK 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.
Fall GREK0300 S01 17311 MWF 11:00-11:50(16) (C. Fenerty)

GREEK 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.
Spr GREK0400 S01 25889 MWF 10:00-10:50(03) ’To Be Arranged’

GREEK 1050C. Sophocles.
An introduction to the study of Athenian tragedy. Thorough translation of one drama, with attention to literary analysis. Rapid survey of other Sophoclean plays.
Spr GREK1050CS01 25652 TTh 2:30-3:50(11) (A. Scafuro)

GREEK 1100. Advanced Homer: The Odyssey.
It is hard to imagine a more joyful way to acquire excellent control of Homeric Greek than by reading, in its entirety (if possible), Homer’s wonderful and captivating work, the Odyssey. Though it can be a little time-consuming initially, students quickly become familiar with the syntax and the vocabulary, and find great pleasure in immersing themselves in this thrilling masterpiece.
Spr GREK1100 S01 25538 TTh 10:30-11:50(09) (P. Nieto Hernandez)

GREEK 1110F. Poetry of Gods and Heroes.
Readings in early Greek hymns, creation myths (especially Hesiod’s Theogony), and short poems about human struggle and values.
Fall GREK1110FS01 16951 MWF 1:00-1:50(06) (J. Hanink)

GREEK 1111F. The Greek Chorus.
One of the most striking features of Greek drama is the presence of a chorus whose members dance, sing, and contribute to the dramatic action in ways that puzzle modern audiences. Besides the drama, choruses are also found in other genres: in victory odes for champions of athletic competitions, in hymns to gods and goddesses, and in other forms such as the dithyramb. In this class, we will read a representative selection of choral lyric, from Alcman to Aristophanes, including major figures such as Pindar, Aeschylus, Sophocles, and Euripides.
Fall GREK1111FS01 17099 TTh 10:30-11:50(13) (K. Haynes)

GREEK 1820. Greek Literature Survey after 450 BCE.
Surveys Greek literature after 450 BCE. Authors studied include Sophocles, Euripides, Aristophanes, Herodotus, Thucydides, as well as the literature of the fourth century and beyond. Emphasis on literary interpretation and the intellectual currents of the times. Extensive readings in the original.
Spr GREK1820 S01 25532 MWF 1:00-1:50(06) (S. Kidd)

GREEK 1830. Imperial Greek Prose.
How did Greek literature evolve under the Roman Empire? In this course we survey Greek prose literature of the 2nd-4th centuries CE, in particular trends related to what might be called “the Long Second Sophistic.” Authors and topics we study include: figures traditionally associated with the Second Sophistic (Dio Chrysostom, Philostratus, Lucian, Aristides), the Greek novel, rhetorical theory and textbooks, biographical literature, travel-writing (Pausanias), Athenian-trained Christian rhetors such as the Cappadocian Fathers, and the concept of paideia and its relationship to specialized disciplines such as medicine and logic.
Fall GREK1830 S01 17250 MWF 2:00-2:50(07) (B. MacDougall)

GREEK 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.

GREEK 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.

GREEK 2020D. Thucydides.
Books I and VIII: language, mode of thought, and methodology; how the work was composed, historical problems; supplementary sources: epigraphical, literary.
Spr GREK2020DC01 25547 W 3:00-3:50(10) (J. Hanink)

GREEK 2110F. Greek Paleography and Premodern Book Cultures.
Introduction to pre-modern Greek book culture and the study of Greek literary scripts 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.
Spr GREK2110FS01 25548 F 3:00-5:30(15) (B. MacDougall)

GREEK 2110G. Political Trials: Treason and Accountability in Fourth Century Athens.
In studying trials of treason and accountability, we shall examine the democratic ideologies and political factionalism that fueled the trials and also the legal armature that rendered them possible. Our sources for the most part are speeches written by the Attic orators (Demosthenes, Aeschines, Lycourgos, Deinarchos, and Hypereides) and include impeachment trials for treason by commission of adultery, for having the wrong dream in the Amphiaroeion, for leaving Athens in wartime; an accountability trial for treasonous conduct while serving on an embassy; and trials (including the prosecution of Demosthenes) for accepting bribes from Alexander's agent, Harpalos.
Fall GREK2110GCS01 16988 W 3:00-5:30(17) (A. Scafuro)

GREEK 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 15292 Arranged ’To Be Arranged’
Spr GREK2970 S01 24185 Arranged ’To Be Arranged’

GREEK 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.

GREEK 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall GREK2990 S01 15293 Arranged ’To Be Arranged’
Spr GREK2990 S01 24185 Arranged ’To Be Arranged’

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 16955 MWF 10:00-10:50(14) (B. MacDougall)

LATN 0110. Introduction to Latin.
This course offers a rapid introduction to the Latin language and grammar. As a one-semester introduction to material often covered in two semesters, this course carries two credit hours instead of one. The workload for this course is correspondingly heavy; students may expect an average of ten hours of homework—including memorization, practice, and preparation of vocabulary and grammar—per week. There are no prerequisites for this course.
Spr LATN0110 S01 26086 MWF 12:00-12:50(02) 'To Be Arranged'
Spr LATN0110 S01 26086 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 two course sequence.
Spr LATN0200 S01 26013 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 17315 MWF 9:00-9:50(01) (C. Eli)

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 25890 MWF 1:00-1:50(06) 'To Be Arranged'

LATN 1040B. Virgil: Aeneid.
Close reading of selections from all twelve books of Virgil's epic.
Fall LATN1040B S01 25772 TTh 1:00-2:20(08) (A. Laird)

LATN 1060K. Seneca.
Philosopher, statesman, teacher, husband, and friend, Seneca (the Younger) was respected in his life and revered for his spectacularly Stoic death. This course will introduce students to aspects of Senecan thought, style, and influence while refining general facility with Latin.
Spr LATN1060K S01 26010 MW 8:30-9:30(02) (S. Eccleston)

LATN 1110B. Augustine, Confessions.
We will focus on the Christian humanism of Augustine’s Confessions, reading excerpts from the autobiographical books against the diction found in them owed to Catullus, Cicero, Horace, Lucretius, Ovid, Sallust, and Virgil. The question of why a Christian might make use of such diction will be answered through attention to Augustine’s training and his literary aims in writing the Confessions.
Fall LATN1110B S01 16959 MWF 1:00-1:50(06) (J. Pucci)

LATN 1110E. Comedy.
No description available.
Fall LATN1110E S01 16989 TTh 1:00-2:20(08) (A. Scafuro)

LATN 1110J. Petronius.
Close reading of Petronius’s comic masterpiece, the Satyricon, with emphasis on questions of form, narrative technique, and literary intention.
Fall LATN1110J S01 16936 TTh 2:30-3:30(03) (J. Bodel)

LATN 1110S. Catullus.
We will read all the extant poetry of Catullus with an emphasis on close reading of the Latin text and discussion of linguistic, literary, and cultural problems.
Fall LATN1110S S01 16947 MWF 2:00-2:50(07) (J. Debrouhun)

LATN 1120D. Alcuin.
Alcuin lived a life of wide variety and accomplishment, not least as an important member of Charlemagne’s inner circle and, like many at court, he wrote widely and in multiple genres. From his enormous output this course will focus on the large collections of poetry and letters. We will attend in both gatherings to theme, tone, style, and allusiveness and, where appropriate, we will ponder alternate readings in a collection that has not been edited since the late nineteenth century.
Spr LATN1120D S01 25529 MWF 11:00-11:50(04) (J. Pucci)

LATN 1150. Latin Prose Composition.
Review of the basic tenets of Latin syntax, composition, and style. English to Latin translation exercises will shore up composition skills, as we study the stylistic traits of seven Roman authors: Cato, Caesar, Cicero, Sallust, Livy, Seneca, and Tacitus. The course will proceed chronologically according to author. Class time will be spent on translation exercises and review, as well as the identification of the stylistic and syntactic characteristics of the seven authors under study.
Spr LATN1150 S01 26536 TTh 10:30-11:50(09) (J. Debrouhun)

LATN 1810. Survey of Republican Literature.
Our purposes in this survey of Latin literature are to acquire a comprehensive historical perspective on Latin poetry and prose until the end of the Republic and a sense of its phases and the dynamics of its tradition; and to read different styles of Latin poetry and prose with confidence and ease.
Fall LATN1810 S01 16948 MWF 11:00-11:50(16) (J. Debrouhun)

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 2050. Thebes at Rome: Ovid, Seneca, Statius.
This seminar studies the significance of Thebes, and the mythological stories associated with it, in the epic and dramatic poetry of the early Empire. The themes of civil war, identity (familial and political), and relations of power central in Theban mythology were useful for Romans to “think with” in the political, social, and cultural climate of the 1stc. CE.; also, the poets’ emphasis on Thebes provided a useful foil to that on Troy represented especially by Vergil’s Aeneid. We will focus in particular on Ovid Metamorphoses 3 and 4, Seneca’s ‘Theban plays, and Statius’ Thebaid.
Spr LATN2050 S01 25717 Th 4:00-6:30(17) (J. Debrouhun)

LATN 2120A. Roman Epigraphy.
A practical introduction to the study of Latin inscriptions, with emphasis on the reading, editing, and interpretation of texts on stone. Class time will be divided between discussion of various categories of texts in the light of the ‘epigraphic habit’, literacy, and the sociology of reading in antiquity and hands-on experience with editing inscriptions on stone.
Fall LATN2120A S01 16934 M 3:00-5:30(05) (J. Bodel)

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 15310 Arranged 'To Be Arranged'
Spr LATN2970 S01 24200 Arranged '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 residency requirement and are continuing research on a full time basis.
Fall LATN2990 S01 15311 Arranged 'To Be Arranged'
Spr LATN2990 S01 24201 Arranged '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 S02 16867 MTWTh 12:00-12:50(15) (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.
Fall MGRK0200 S01 25531 MWF 12:00-12:50(05) (E. Amanatidou)

MGRK 0300. Intermediate Modern Greek.
Develops linguistic and cultural competence and may be taken by anyone who has completed MGRK 0200 or after consultation with the instructor and/or a placement exam. It focuses on further development of the four language skills as well as knowledge and understanding of various aspects of Greek society. It employs a variety of materials, including film, digital stories, internet based sources, music, art, and literature.
Fall MGRK0300 S01 16930 TTh 1:00-2:20(08) (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.
Fall MGRK0400 S01 25539 TTh 1:00-2:20(08) (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 16932 Arranged

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 25549 Arranged

MGRK 0811. Travelers in Greece: from Pausanias to Shirley Valentine (CLAS 0210T).
Interested students must register for CLAS 0210T.
Spr MGRK0811 S01 26213 Arranged 'To Be Arranged'

Why do the material remnants of classical antiquity still attract public attention and exercise symbolic power? Why have such monuments been "used" by authorities and diverse social groups in the service of often totalitarian agendas? What are the cases where these monuments operate as weapons for resistance? How has colonial, racial, and national modernity shaped the way we understand and experience the materiality of the classical? Finally, how can we decolonize classical antiquity? We will use a diversity of global case studies, including modern Greece and Europe, and a variety of sources, from ethnographically derived performances to digital culture.
Fall MGRK1220 S01 17446 TTh 2:30-3:50(03) (Y. Hamilakis)

This course introduces the culture, history, and politics of modern Greece. No prerequisites; all texts in English. Putting aside exceptionalist claims rooted in antiquity, the course focuses on critical moments when Greek figures in the frontline of Balkan, European, and global events in the modern period: when, as historian Mark Mazower claims, "democracy's cradle [is] rocking the world." Literary, filmic, and artistic representations of such moments from within and outside Greece will illuminate issues of nationalism, modernization, sovereignty, and postcoloniality. Faculty at Brown from diverse disciplines working on Greece will be invited to address such questions through their own research.
Spr MGRK1240 S01 26253 TTh 10:30-11:50(09) (V. Calocychos)

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

MGRK 2200. Modern Greek for Classicists and Archaeologists.
This graduate level course promotes the acquisition and further refinement of the necessary translational and transcultural skills to prepare students in the fields of Classics and Archaeology to carry out research in Greece and Cyprus. In addition, it involves training in linguistic skills that will enable students to study closely a range of texts of relevance to these disciplines. Primary emphasis will be on the development of reading, oral and aural skills using a variety of text and web based materials, of discipline specific content but also in professional and other communicative contexts of cultural currency.
Fall MGRK2200 S01 16983 Arranged
Spr MGRK2200 S01 25553 Arranged

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 16939 MWF 12:00-12:50(15) (D. Buchta)

SANS 0200. Elementary Sanskrit II.
This course continues the survey of grammar and the reading exercises of SANS 100. The second half of this course reads selected passages of the Bhagavad Gītā and the beginning of the classic story of Nala and Damayantī from the Mahābhārata. Prerequisite: SANS 0100.
Spr SANS0200 S01 25530 MWF 12:00-12:50(05) (D. Buchta)

SANS 0300. Sanskrit Epic Narrative.
Consolidates and extends the knowledge of Sanskrit grammar introduced in first year Sanskrit; acquaints students first-hand with basic themes of ancient Indian culture, and cultivates the reading and interpretive skills necessary to read epic and closely related Sanskrit narrative with comprehension and increased fluency. Prerequisite: SANS 0200.
Fall SANS0300 S01 16940 MWF 10:00-10:50(14) (D. Buchta)

SANS 1020. Early Sanskrit Philosophy and Religion.
Reading in Sanskrit of selections from the Upanishads, Bhagavad Gītā, Dharmasāstras, etc. Prerequisite: SANS 0200.
Spr SANS1020 S01 25550 Arranged (D. Buchta)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
SANS 1800. Classical Schools of Indian Philosophy. Introduction to the classical Brahminic darsanas (comprehensive, rationalized systems of philosophy and, or, theology dealing with Hermeneutics and Philosophy of Language, Logic, Metaphysics, and Ultimate Beatitude) and to corresponding Buddhist and Jain traditions through reading, in Sanskrit, of selected works. Prerequisite: SANS 0400. Fall SANS1800 S01 16944 Arranged (D. Buchta)

SANS 1970. Independent Study - Special Topics. SANS 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. 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 15343 Arranged "To Be Arranged" Spr SANS2970 S01 24224 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

Cognitive, Linguistic and Psychological Sciences

CLPS 0010. Mind, Brain and Behavior: An Interdisciplinary Approach. 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? Fall CLPS0010 S01 16605 MWF 11:00-11:50(16) (E. 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. Fall CLPS0050A S01 16606 MWF 12:00-12:50(15) (J. Anderson)

CLPS 0100. Learning and Conditioning. Presents classical and contemporary approaches to the study of the prediction and control of behavior. Emphasizes theories and data derived from studies of Pavlovian conditioning and instrumental learning with nonhuman animals, but also considers implications for human behavior (e.g., drug-dependent behaviors, eating disorders, behavior modification and psychopathologies). No prerequisites. Spr CLPS0100 S01 25039 MWF 1:00-1:50(06) (R. Colwill)

CLPS 0120. Introduction to Sleep. This course uses sleep as the focal point for describing complex behavioral phenomena. How is sleep measured and defined? How does sleep differ across species? What accounts for the timing of sleep? How does sleep change with age? What are the behavioral, physiological, and cognitive concomitants of different states of sleep? How can dreaming be understood? What can go wrong with sleep? Recommended prior coursework: CLPS 001 or NEUR 0010, or an AP course in psychology or physiology. Fall CLPS0120 S01 17320 W 3:00-5:30(17) (M. Barskadon)

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 25040 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 25041 TTh 10:30-11:50(09) (D. Yokum)

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 16607 MWF 10:00-10:50(14) (U. Cohen Priva)

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. Spr CLPS0400 S01 25042 TTh 9:00-10:20(01) (D. Amso)

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. Spr CLPS0500 S01 25043 MWF 9:00-9:50(02) (L. Welch)

CLPS 0540. Simulating Reality: The (Curious) History and Science of Immersive Experiences. Can an experimental approach enhance our critical-historical understanding of immersive experiences? We will look at the history of 3D vision from an interdisciplinary perspective combining the science of perception and the cultural history of technology. Through a series of collaborative activities and team experiments, we will learn how popular, pre-digital optical devices (such as camerae obscurae, magic lanterns, panoramas or stereoscopes) foreshadow contemporary VR, AR, or XR experiences designed for education and entertainment. Among the themes explored: virtual travel, social voyeurism and surveillance, utopian and dystopian imagination. Spr CLPS0540 S01 25660 M 3:00-5:30(13) (F. Domin)

CLPS 0550. Science of Consciousness. 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 16608 TTh 6:30-7:50(10) (T. Watanabe)
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 16610 MWF 1:00-1:50(06)  (D. Sobel)

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.
Fall CLPS0701 S01 16612 TTh 9:00-10:20(02)  (B. Hayden)

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 neurophysiological – are emphasized.
Fall CLPS0800 S01 25044 MWF 1:00-1:50(06)  (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 16613 TTh 10:30-11:50(13)  (K. Spoehr)
Spr CLPS0900 S01 25045 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.
Spr CLPS0950 S01 25046 TTh 1:00-2:20(08)  (T. Serre)

CLPS 1180B. Animal Languages.
Most animals – fishes, frogs, birds, bats, whales, monkeys, and humans – communicate using sounds. Are these acoustic communication systems complex enough to be considered as animal languages, or is human language unique? We will examine the structure, function, and neural control of animal acoustic communication systems and search for evidence of evolutionary continuities between animal sounds and human language. Topics to be studied include vocal learning and imitation, the evolution of cooperative vocal exchange, syntax in bird and whale songs, and symbolic communication in primates.
Spr CLPS1180B S01 26225 M 3:00-5:30(13)  (A. Simmons)

CLPS 1193. Laboratory in Genes and Behavior.
Laboratory course in behavioral neuroscience designed to provide research experience in assessing effects of genetic alterations on behavior. Students examine the behavioral phenotype of a mouse model of human disease. Mice are tested on behavioral batteries to assess, for example cognitive, affective, and sensorimotor behavior. Recent classes tested models of early life stress, Fragile X Mental Retardation, and Alzheimer’s Disease. Students will test the mice, analyze the data, and prepare a manuscript suitable for publication in a scientific journal.
Prerequisites: CLPS 0410 or NEUR 0010, and CLPS 0900 or instructor permission. Enrollment limited to 10; not open to first-year students
Spr CLPS1193 S01 25048 TTh 3:00-5:00(11)  (K. Bath)

CLPS 1195. Life Under Water in the Anthropocene.
Aquatic ecosystems are under intense pressure from a variety of anthropogenic stressors. Through lectures, discussion and authentic research projects, this course will explore the impact of some of those stressors on the development and behavior of the most vulnerable, the developing young. Topics include the impact of anthropogenic stressors on local and global ecosystems; the behavioral biology, embryonic development, and behavior of two animal models, zebrafish and Xenopus laevis; basic research techniques for studying the development and behavior of fish and frogs; and skills needed to conduct authentic scientific research. Students will design, conduct and present an authentic research project.
Fall CLPS1195 S01 17479 Th 1:00-4:00(08)  (R. Colwill)

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.
Spr CLPS1250 S01 25049 MWF 2:00-2:50(07)  (K. Malle)

CLPS 1280B. Special Topics in Cognition: Collective Cognition.
As individuals, we know little. We overestimate our knowledge of common objects and political policies, and the depth of our arguments. But humanity has achieved great things using its mental powers. The most likely reason is that we live in a community of knowledge, guided by shared intentionality. Communities understand how things work, and individuals fail to distinguish what they know from the knowledge that resides in other people’s heads. In this course, we will evaluate these claims and discuss how they constrain theorizing in cognitive science. We will draw from literatures in psychology, philosophy, and computer science.
Fall CLPS1280B S01 17663 Th 4:00-6:30(04)  (S. Sloman)

CLPS 1310. Phonology.
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 0030.
Spr CLPS1310 S01 25050 TTh 10:30-11:50(09)  (U. Cohen Priva)

CLPS 1331. Linguistic Variation and Universals.
As anyone who has tried to learn a foreign language knows, languages differ from one another in numerous ways both superficial and profound. Although there are many different ways in which syntactic structure varies across languages, this variation is not limitless; it is subject to principled constraints, and different logically independent dimensions of variation often turn out to be highly correlated with one another. This course explores language universals and the range of cross-linguistic variation in the domain of morphosyntax, what limits this variation appears to have, and what functional, formal, and semantic principles underlie this variation.
Spr CLPS1331 S01 26115 TTh 10:30-11:50(09)  (S. AnderBois)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
CLPS 1342. Compositional Semantics.
Model-theoretic approaches to the study of the semantics of natural languages. Develops the tools necessary for an understanding of classic formal semantic results in linguistics and in philosophy (lambda calculus, intensional logic, Montague's treatment of quantification, etc.). These tools are then applied to detailed descriptions of natural language semantics, including binding and pronouns, modification, scope, focus etc. as well as other recent developments in semantic theory. Prerequisite: some familiarity with syntax or semantics or basic set theory and logic.

CLPS 1370. Pragmatics.
Any time we utter a sentence in conversation, the perceived meaning of that sentence interacts with the discourse context in a rich variety of ways. On the one hand, aspects of a sentence's meaning are "filled in" or enriched by the prior conversation as well as non-linguistic context. On the other hand, utterances shape the future of the conversation in various ways too. This course is an introduction to the scientific study of such phenomena. Specific topics include: presupposition, implicature, speech acts, deixis, anaphora, (in)definiteness, and information structure.

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: CLPS010 or NEUR010; and preferably at least one of the following: CLPS1150, CLPS1480, CLPS0400, CLPS0100, CLPS2100, NEUR1740; NEUR1540.

CLPS 1480C. Cognitive Control Functions of the Prefrontal Cortex.
The prefrontal cortex has long been known to support higher cognitive functions, including working memory, planning, reasoning, and decision making. This seminar offers an in-depth review of recent empirical and theoretical approaches to understanding prefrontal cortex function. This year the course will focus on prefrontal contributions to the cognitive control of declarative memory. Enrollment limited to 20.

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.

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.

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: one of the following: CLPS 0010 (PSYC 0010), CLPS 0020 (COGS 0010), CLPS 0500 (COGS/PSYC 0440), or CLPS 0510 (COGS 0110). Fall CLPS1500 S01 25052 TTh 2:30-3:50(11) (W. Warren)

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.

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.

How do infant and preschoolers learn about the world? We will examine children's understanding of the physical world, psychological kinds, biological entities, number, objects, and space. Students are expected to read and comment on both empirical and theoretical primary source articles, to participate in weekly discussions, and complete a set of writing assignments. Prerequisites: CLPS 0600 (PSYC0810) or CLPS 0610 (COGS0630)

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 (PSYC0810), CLPS 0610 (COGS 0830), EDUC 0800, or permission of the instructor. Enrollment limited to 40.

CLPS 1660. Learning Compositional Language.
Babies come into the world not knowing a word. Within three years, they know enough of their first language to understand the difference between, "your doll is a toy" and "the stove is not a toy." By age five, they can’t yet be trusted to look both ways before crossing the road, but their language is close to native adult speakers. How is this possible? This course looks at how children learn how language expresses meaning; how they go from understanding individual words to putting words together to compose and express complex, meaningful ideas – the development of syntax, semantics, and pragmatics.

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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
This course explores answers to the question of what enables some individuals to escape the worst psychological consequences of extreme personal disruption 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.

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 and Behavioral Decision Making concentrators.

CLPS 1770. Stigma and Prejudice.
This seminar focuses on empirical research ranging across several topics in the psychology of prejudice, stereotyping, discrimination, and social stigma. We will read, interpret, and discuss quantitative research in social psychology (i.e., studies that contain statistics in their results) and the implications of these scholarly contributions to our knowledge of the inner workings of intergroup behavior. This includes understanding individual differences and contexts related to exhibiting prejudicial behaviors (prejudice/bias), the implications of this behavior for targets of discrimination (stigma), and contributions of each of these to how groups and group members interact with one another in society (intergroup relations).

CLPS 1782. Me, Myself, and I: Exploring Senses of Self from a Multidisciplinary Perspective (COST 1082).
Interested students must register for COST 1082.

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 0090) or equivalent. Enrollment limited to 27.

CLPS 1791. Laboratory in Social Cognition.
Examines principles of experimental design and analysis in the context of classic and contemporary research in social cognition. Students replicate and extend several studies on topics such as person perception, social stereotyping, or judgment and decision making. Students will participate in the design of these studies, gather their own data, analyze them, and report the findings in oral presentations and written reports. Prerequisites: CLPS 0010 (PSYC 0010), CLPS 0700 (PSYC 0210), and CLPS 0900 (PSYC/COGS 0090). Enrollment limited to 24.

CLPS 1890. Laboratory in Psycholinguistics.
An advanced course in methodological approaches to the study of psycholinguistics. Processes (e.g. with adult lexical access, sentence processing, corpus linguistics, etc.) Recommended prerequisites: CLPS 0800 (COGS 0450) and CLPS 0900 (COGS/PSYC 0090), or equivalent.

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 1991)

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.

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.

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 15266 Arranged ‘To Be Arranged’
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.
Spr CLPS2908 S01 25060 TTh 10:30-11:50(09) (B. Malle)

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.
Fall CLPS2970 S01 15267 Arranged "To Be Arranged"
Spr CLPS2970 S01 24164 Arranged "To Be Arranged"

CLPS 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall CLPS2990 S01 15268 Arranged "To Be Arranged"
Spr CLPS2990 S01 24165 Arranged "To Be Arranged"

LING XLIST. Courses of Interest to Concentrators in Linguistics.

Linguistics

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.

Fall 2019
The following courses, offered in CLPS as well as in other departments, may be of interest to students concentrating in Linguistics. While courses on the list generally can be counted towards the Linguistics concentration, questions about whether and how specific courses count should be directed to the concentration advisor, especially for courses outside of the CLPS department.

Cognitive, Linguistic, Psychological Sciences
CLPS 0300 Introduction to Linguistics
CLPS 1342 Compositional Semantics
CLPS 1370 Pragmatics
CLPS 1890 Laboratory in Psycholinguistics

East Asian Studies
EAST 1510 Chinese: A History of the Language
HISP 1210F History of the Spanish Language

Japanese
JAPN 0910C Japanese Linguistics

Philosophy
PHIL 0200F Language, Race, and Gender
PHIL 0540 Logic
PHIL 1880 Advanced Deductive Logic

Spring 2020
The following courses, offered in CLPS as well as in other departments, may be of interest to students concentrating in Linguistics. While courses on the list generally can be counted towards the Linguistics concentration, questions about whether and how specific courses count should be directed to the concentration advisor, especially for courses outside of the CLPS department.

Anthropology
ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology
ANTH 2800 Linguistic Theory and Practice

Computer Science
CSCI 1460 Computational Linguistics
Cognitive, Linguistic, Psychological Sciences
CLPS 0800 Language and Mind
CLPS 1310 Phonology

East Asian Studies
EAST 1430 Word for Word: Linguistic Principles in Chinese-English Translation

Hispanic Studies
HISP 0710C Introducción a la lingüística hispánica

Japanese
JAPN 1310 Japanese Linguistics: Communication and Understanding Utterances

Slavic Studies
SLAV 1300 Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe)

Humanities

HMAN 0700A. Simulating Reality: The (Curious) History and Science of Immersive Experiences (CLPS 0540).
Interested students must register for CLPS 0540.
Spr HMAN0700/S01 26126 Arranged "To Be Arranged"

HMAN 0701A. Brazilian Democracy in Literature and History (POBS 0711).
Interested students must register for POBS 0711.
Fall HMAN0701/S01 17518 Arranged "To Be Arranged"

HMAN 1971S. Introduction to iPhone/iPad Moviemaking Using 3-D and 360 VR Comparisons.
Mobile Devices are democratizing movie-making by lowering barriers to entry, enabling students to become full-fledged members of the film industry virtually overnight. This pioneering course provides the basic tools for students to create and distribute no- and low-budget live-action motion pictures with professional production values utilizing only their personal smartphones. Students will acquire the skills to plan, capture and edit short motion pictures through hands-on instruction and experimentation with low-cost accessories, including selfie-sticks, lens adapters, directional microphones and iPhone apps like Filmic Pro, Vizzywig and iMovie. Limited to junior, senior and graduate students.
Fall HMAN1971S S01 17496 T 4:00-6:30(09) (T. Bogosian)
Spr HMAN1971S S01 26093 T 4:00-6:30(16) (T. Bogosian)

HMAN 1973W. Indigenous Politics in Hawai‘i: Resurgence and Decolonization (POLS 1820).
Interested students must register for POLS 1820.
Fall HMAN1973W S01 17456 Arranged "To Be Arranged"

HMAN 1974E. Political Theology for the Anthropocene.
The Seminar develops a discourse in political theology for gaining insight into the catastrophes of the modern world and those associated with the Anthropocene. The political imagination embedded in a cluster of texts from the Hebrew Bible and the political theology they imply will enrich discussions in political theory about sovereignty, government, law, and violence. The seminar gives special attention to the way the modern state and other modern and contemporary institutions have come to substitute for God as authors of large scale, globalized, and planetary catastrophes. Our theoretical companions include Buber, Assman, Agamben, Arendt, Foucault, Boltanski, and Žižek.
Fall HMAN1974E S01 17329 W 3:00-5:30(17) (A. Ophir)

HMAN 1974F. Anthropology in/of the Museum (ANTH 1901).
Interested students must register for ANTH 1901.
Fall HMAN1974F S01 17457 Arranged "To Be Arranged"

Interested students must register for HIAA 1631.
Fall HMAN1974G S01 17888 Arranged "To Be Arranged"

HMAN 1974H. The Human Skeleton (ANTH 1720).
Interested students must register for ANTH 1720.
Fall HMAN1974H S01 17866 Arranged "To Be Arranged"

Interested students must register for HIST 1978D.
Fall HMAN1974I S01 17868 Arranged "To Be Arranged"

HMAN 1974J. Rap as Storytelling (MUSC 1240R).
Interested students must register for MUSC 1240R.
Fall HMAN1974J S01 17929 Arranged "To Be Arranged"

HMAN 2400P. The Idea of the University.
What is the future of the university? Its very idea has undergone drastic changes, from the formulation of “academic freedom” in 1155 to what, under neoliberal capitalism, has been called the “uberification of the university.” Our seminar is dedicated to key texts—from Kant to Derrida and Butler—in this history, focusing on topics such as the corporatization of universities, political protest, and the unconditional. Students will pursue collaborative inquiries into the idea of a university or jointly translate significant historical and theoretical documents; their research will be the foundation of a critical lexicon hosted on a dedicated webpage.

This is a seminar about what happens when arts and ideas move. It defines processes of artistic and literary translation, from the repetition and reuse of narratives to the uncanny meeting of pictorial conventions to the tweaks, adjustments, and inventions that propelled arts across the early modern world. We will address theories of translation and imitation, and focus on problems of style, language, impostors, dictionaries, media, and ethnography, especially in Asia, Europe, and the Middle East. Class will include training in artistic practices of replication and a collaborative project with special collections.

HMAN 2400S. Race, Nation, Immigration.
This collaborative seminar investigates the imbrications of race, nation, and immigration from the comparative perspectives of the social sciences and the humanities. Taught by a political scientist with an emphasis on state/society relations in Asia and a historian with a focus on modern European intellectual history, politics, and arts, the course examines questions of belonging, inclusion, and exclusion in areas of the world that provide fruitful sites of analysis, such as the United States, Europe, South Asia (India), Latin America (Brazil), and Africa (South Africa). Materials will include films, fiction, theoretical writings, and data sets.

HMAN 2400T. Imagining Cities: Early Modern Urban Perspectives.
Every city is a palimpsest in space and time. Calvino’s “Invisible Cities” defines processes of artistic and literary translation, from the repetition and reuse of narratives to the uncanny meeting of pictorial conventions to the tweaks, adjustments, and inventions that propelled arts across the early modern world. We will address theories of translation and imitation, and focus on problems of style, language, impostors, dictionaries, media, and ethnography, especially in Asia, Europe, and the Middle East. Class will include training in artistic practices of replication and a collaborative project with special collections.

HMAN 2400X. Premodern Art-Science, or the Work of Knowing in Europe before 1800.
This collaborative seminar examines premodern ways of knowing through entangled histories of art, craft, science, and medicine in Europe before 1800. Whether through the visual representations of naturalists or the manipulation of matter by artists/artisans to render nature meaningful, useful, or both, premoderns made knowledge in ways that defy modern disciplinary divisions. In studying premodern knowledge work through its own disciplinary understandings, we explore the research methodology of reconstruction, i.e., the argument that we must reconnect material objects with texts, and both with laboratory research practices, to fully understand premodern knowledge work. Taught in parallel at the University of Minnesota.

HMAN 2500. Project Development Workshop.
In this capstone course, students completing the Graduate Certificate in Collaborative Humanities pursue individual or collaborative projects, such as a dissertation prospectus, a dissertation chapter, or a methodological/theoretical exercise relating to their field of interest. Weekly sessions are devoted to work-in-progress and discussion of key texts addressing method and theory in and beyond the humanities. At the end of the semester, participants present in a Collaborative Public Workshop. Admission to the seminar requires a formal application process and the completion of two HMAN 2400 seminars. This seminar is the capstone course for the Graduate Certificate in Collaborative Humanities.

Information: https://www.brown.edu/academics/humanities/ 

HMAN 2971F. Radical Borders (HISP 2520R).
Interested students must register for HISP 2520R.

Comparative Literature

Che Guevara and Fidel Castro are among the twentieth century’s most iconic figures, thanks to their roles in the Cuban Revolution and in anti-imperialist struggles across the globe. They are also among the most divisive, eliciting passionate disapproval among some and strong admiration among others. In this seminar, we will read Guevara and Castro’s speeches and writings alongside literary, visual and cinematic representations of them, paying particular attention to the ways in which their lives and deaths have generated distinct interpretations, in Cuba and beyond. Open only to first-year students.

COLT 0510K. The 1001 Nights.
Explores the origins, performance, reception, adaptation, and translation of the 1001 Nights, one of the most beloved and influential story collections in world literature. We will spend the semester in the company of genies, princes, liars, slaves, mass murderers, orientalists, and Walt Disney, and will consider the Nights in the context of its various literary, artistic, and cinematic afterlives.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
COLT 0510P. Reading the Renaissance. How do these works figure the renaissance as a cultural formation? Petrarch, Rime Sparse; Boccaccio, Decameron; Castiglione, Book of the Courtier; Erasmus, Praise of Folly; Thomas More, Utopia; Machiavelli, Prince, Mandragola; Wyatt and Ronsard (poems); Spenser, Faerie Queen and Shepheardes Calendar, Cervantes, Don Quixote.

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.

COLT 0710C. Introduction to Scandinavian Literature. An introduction to major works of Scandinavian writers, painters and filmmakers over the past 150 years. Figures include Kierkegaard, Ibsen, Strindberg, Munch, Hamsun, Josephson, Södergran, Lagerkvist, Vesaas, Cronqvist, Bergman, August and Vinterberg, as well as children's books by Astrid Lindgren and Tove Jansson.

COLT 0710I. New Worlds: Reading Spaces and Places in Colonial Latin America. An interdisciplinary journey-combining history, literature, art, film, architecture, cartography-through representations of the many worlds that comprised the colonial Hispanic New World. We traverse the parodicical Antilles, the U.S. Southwest, Tencochtli/Mexico City, Lima, Potosi. We read European, indigenous, and Creole writers, including: Columbus, Las Casas, Bernal Diaz, Aztec poets, Guaman Poma, Sor Juana. In English. Excellent preparation for study abroad in Latin America. Enrollment limited to 19 first year students.

COLT 0710Z. Comedy from Athens to Hollywood. This course will look at ancient comedy from its birth in Athens and Rome through Renaissance incarnations to the 19th and 20th century, including novels and films as well as plays. We will survey the main topics of comedy, from Aristophanes' focus on the absurdities of daily and political life in Athens to the Roman codification of a genre of everyman in love and in trouble. We will also examine how later writers and filmmakers use both traditions to give comedy its subversive power of social commentary.

COLT 0711H. The Arabic Novel. This course offers students both a foundation in the "classics" of Arabic fiction and a foray into recent experimentalizations with form and language. We'll spend the first half of the semester with Egyptian Nobel laureate Naguib Mahfouz, tracing his evolution from Victor Hugo-esque chronicler of life in Cairo to Faulknerian experimentalist. We'll then examine the works of authors who deem themselves "post-Mahfouzian," including Gamal al-Ghitani, Sonallah Ibrahim, Elias Khoury, and Hanan al-Shaykh. Students will emerge with a transnationalist, inclusive understanding of the Middle East glimpsed through the region's literature. No Arabic necessary; students with Arabic may read in the original.

COLT 0711L. The Quran and its Readers. Like the Bible, the Quran has had a monumental impact upon world literature. Its narratives and imagery permeate the textual, visual, and auditory landscapes of many societies in the Islamic world and beyond. In this course, we approach the Quran through the works of some of its most interesting readers, including Avicenna, Ibn Khaldun, Dante, Rumi, Hafez, Goethe, Borges, Houellebecq, and Rushdie. All readings are in English.

COLT 0711M. Off the Beaten Path: A History of Modern Japanese Literature (EAST 0800). Interested students must register for EAST 0800. Spr COLT0711M SO1 26262 Arranged "To Be Arranged"

COLT 0810H. How Not to Be a Hero. One of Shakespeare’s greatest plays is about a character who was an irredeemable failure: Coriolanus. What can failure teach us? What kind of strength does a language of failure possess? We will read the ancient sources themselves (Livy, Lucian, Plutarch), and modern adaptations of these stories (Bertolt Brecht, T. S. Eliot, Günter Grass). We will also look at other "exemplary" failures who inspired Shakespeare and later literature, including Lucullus and Timon. Fall COLT0810H SO1 15959 Thh 9:00-10:20(02) (K. Haynes)

COLT 0811H. Tales and Talemakers of the Non-Western World. Examines many forms of storytelling in Asia, from the Epic of Gilgamesh and the Arabian Nights Entertainments to works of history and fiction in China and Japan. The material is intended to follow the evolution of non-western narratives from mythological, historical and fictional sources in a variety of cultural contexts. Topics will include myth and ritual, the problem of epic, tales of love and the fantastic, etc.

COLT 0811I. Classical Mythology and the Western Tradition. Reads classical texts that expound the fundamental mythological stories and elements of the Western tradition, then select texts from the Renaissance through the twentieth century that utilize these myths. Ancient texts covered include the Epic of Gilgamesh, Hesiod's Theogony and Works and Days, Ovid's Metamorphoses, and plays by Aeschylus, Sophocles, and Euripides. Later texts will include Shakespeare's Venus and Adonis and Rape of Lucrece, Milton's "Lycidas," and lyric poetry by Keats, Shelley, Browning, Swinburne, Rilke, Auden, and Yeats. This course is suitable for anyone wishing to understand the classical background to Western literature.

COLT 0812O. Reading Art in Literature. This course will explore the role of art objects in poetry and prose from East Asia and the west. How are objects represented in literature, and how does the language of art inform texts? Authors from antiquity to today have described works of art in their texts to reveal essential aspects of their cultures: heroic destiny, fatal struggles between life and art, and glimpses of the sublime. Readings include ekphrasis from antiquity, poetry from East Asia and the west, and fiction by Wilde, Balzac, Hawthorne, selections from The Tale of Genji and The Dream of the Red Chamber.

COLT 1210. Introduction to the Theory of Literature. An historical introduction to problems of literary theory from the classical to the postmodern. Issues to be examined include mimesis, rhetoric, hermeneutics, history, psychoanalysis, formalisms and ideological criticism (questions of race, gender, sexuality, postcolonialism). Primarily for advanced undergraduates. Lectures, discussions; several short papers.

COLT 1310M. The Literature of Muslim Spain. Medieval Iberia was a place of great cultural, linguistic, and religious diversity. This course explores the rich Arabic literary production of Cordoba, Seville, Toledo, Granada and other cities of Al-Andalus. We read picaresque narratives, literary anthologies, philosophical novels, and sung poetry. Reading knowledge in Arabic required.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
COLT 1310N. Global Modernism and Crisis.
The early twentieth century was marked by a proliferation of crises in politics, the economy, language, indeed in the very fabric of society. This interdisciplinary course will insist on the global dimension of crisis, analyzing how modernist artists in the metropolis and the periphery represented this situation in different, yet overlapping ways. We will also examine how modernist works provide unique ways of thinking about what is lost in a moment of crisis and what potential may arise out of it. Authors will include: Eliot, Husinbros, Dos Pazzos, Woolf, Galván, Art and Faulkner. 
Spr COLT1310NS01 26235 MWF 9:00-9:50(02) 'To Be Arranged'

COLT 1411C. Shakespeare's Comedies (ENGL 1950K).
Interested students must register for ENGL 1950K.
Fall COLT1411CS01 17611 Arranged 'To Be Arranged'

COLT 1422J. Global Detective Fiction.
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.
Spr COLT1422JS01 25812 F 3:00-5:30(15) (E. Drumsta)

COLT 1422K. Faulkner.
In examining Faulkner’s major works from the early stream-of-consciousness novels through the history-driven and race-inflected texts of the 30s and 40s, this course will evaluate Faulkner’s practice as a writer working both in and against Southern culture, and as Modernist writing within an international context. Issues include narrative experimentation, race, class, gender, and the evolution of Faulkner’s work. Students may be assigned to conference sections by the instructor during the first week of class.
Spr COLT1422KS01 25811 TTh 1:00-2:20(08) (A. Weinstein)

This course will examine how the modernist novel is not only about alienation—estrangement from others, the meaninglessness of existence, the divorce of private self from public life—but also incorporates alienation into its narrative structures. Through the close analysis of novels by European and Latin American authors (Kafka, Camus, Woolf, Onetti, Rufio and Di Benedetto), we will consider alienation from a variety of angles: as a formal problem for narrative; as an existential situation; an experience of history and the past; and as a condition related to the uneven global economy.
Fall COLT1422LS01 17851 MWF 9:00-9:50(01) 'To Be Arranged'

COLT 1430D. Critical Approaches to Chinese Poetry.
Examination of works of Chinese poetry of several forms and periods in the context of Chinese poetic criticism. Knowledge of Chinese not required, but provisions for working with original texts will be made for students of Chinese language.
Fall COLT1430DS01 16603 TTh 2:30-3:50(03) (D. Levy)

COLT 1431B. Modern Arabic Poetry.
An advanced course with readings in modernist Arabic poetry, beginning with the so-called neo-classical poets and proceeding through Romanticism and Modernism, from Egypt to Lebanon, Palestine, Iraq, and beyond. We will examine such recurring themes as love, loss, and longing; war, exile, and homeland; cultural heritage (turath) and creative innovation (ibda’); gender and genre. All readings in Arabic; at least three years Arabic language study (or equivalent) required for enrollment.
Fall COLT1431BS01 17192 W 3:00-5:30(17) (E. Drumsta)

COLT 1431C. Poets, Poetry, and Politics.
The award of the 2016 Nobel Prize for Literature to Bob Dylan ignited a lively debate about who is, and who is not, a poet. Historically, who were deemed poets, what was their function? What do their poems do and how do they work? Do they foment revolution or “make nothing happen,” as Auden once wrote? How does the poet aspire to a unique, individual voice even as he or she may (be seen to) best represent a constituency? This course relates the poetic act to political action and interrogates the commonly aired contention that politics makes for bad poetry.
Fall COLT1431CS01 15957 MWF 2:00-2:50(07) (V. Calotychos)

COLT 1431F. Reading Modernist Poetry.
The period between 1880 and 1950, generally known as the age of Modernism, saw profound changes at every level of Western society, including politics, war, religion, and art. In this course, we will examine how various poets in Europe and beyond responded to and helped shape these changes through their art. Emphasis will be on reading for form as well as theme and socio-historical context, and on poetry as performance. Authors may include Yeats, H.D., Hughes, Rilke, Lasker-Schuler, Celan, Apollinaire, Césaire, Montale, Ungaretti, Blok, Akhmatova, Lorca, and Neruda. Knowledge of at least one non-English language highly recommended.
Fall COLT1431FS01 17852 MWF 10:00-10:50(14) (F. Green)

COLT 1440P. Nationalism and Transnationalism in Film and Fiction.
Reports of the demise of nationalism always seem greatly exaggerated. How are notions of transnationalism dependent on rewriting the nation? This course revisits films of world cinema acclaimed for their national cachet from a transnational perspective and in dialogue with their literary intertexts. We will study these films’ fictional narration, cinematic articulation, and critical reception and consider how they signify in multinational networks of funding, distribution, production, conception, and critical reception. Students will analyze the political, ethical, and artistic stakes of confronting difference as both a located and universal stance or commodity. Films and texts chosen from across the globe.
Spr COLT1440PS01 25337 TTh 6:40-8:00(18) (V. Calotychos)

COLT 1440R. This is Palestine.
This course introduces students to the modern history and culture of Palestine through poetry, short stories, novels, novellas, and films. We’ll review the major events of the twentieth century by exploring works 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, steadfastness (sumud), and everyday life under siege and occupation. No Arabic necessary; those with reading knowledge are welcome to read in the original.
Fall COLT1440RS01 17541 MWF 9:00-9:50(01) (E. Drumsta)

COLT 1440W. Patterns of Migrations / People and Objects.
This seminar studies and compares two trajectories of migration, which are thought as unrelated and studied separately by scholars from different disciplines in the humanities and social sciences. The first migration is that of people who do not have or cannot obtain the documentation, generous hospitality in museums, archives, and displays; the second is migration of objects that generated professional care, scrupulous documentation, generous hospitality in museums, archives, and displays; the second is migration of objects that generated professional care, scrupulous documentation, generous hospitality in museums, archives, and displays.
Fall COLT1440WS01 25833 Th 4:00-6:30(17) (A. Azoulay)

COLT 1440X. Shéhérazades : Depicting the “Oriental” in Modern French Culture.
Centered around the storied figure of Shéhérazade, this course explores literary and visual representations of “oriental” women in France from the 18th century to the contemporary period. Structured in a chronological narrative, the course confronts students with highly influential orientalist depictions of women (including Voltaire, Loti, and Delacroix), as well as postcolonial and feminist responses to orientalism. Primary sources will be supplemented with theoretical readings from Edward Said, Fatima Mernissi and Joan Scott among others, in order to question the evolution and relevance of “orientalism” in France today and articulate the endlessly complex relation between imperialism and gender.
Spr COLT1440XS01 26047 MWF 12:00-12:50(05) (E. Crucifix)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
COLT 1440Y. Museum Fictions (HISP 1331F).
Interested students must register for HISP 1331F.
Spr COLT1440Y S01  26069  Arranged  'To Be Arranged'

COLT 1610B. Irony.
A study of the trope of irony and its evaluation, especially in the Romantic
tradition. Focuses on the epistemological implications of irony and the role
it plays in contemporary criticism. Readings from Plato, Hegel, Schlegel,
Kierkegaard, Baudelaire, Lukács, Booth, White, De Man.
Spr COLT1610B S01  25284  ThH  1:00-2:20(08)  (S. Bernstein)

COLT 1610V. The Promise of Being: Heidegger for Beginners.
"The most thought-provoking thing in our thought-provoking time is,“
Martin Heidegger writes, "that we are still not thinking." Our undergraduate
seminar will study, slowly and carefully, some of Heidegger's most
fascinating and challenging paths of thinking, especially as they relate
to questions of Being and our being-in-the-world. We will encounter
his unique engagements with art and literature, his critique of modern
technology, his reflections on what it means to "dwell" somewhere, his
views on finitude and death, and his notion of being "on the way" toward
language. No previous familiarity with Heidegger is assumed; curious
students from diverse fields welcome.
Spr COLT1610V S01  25993  Th  4:00-6:30(17)  (G. Richter)

COLT 1710C. Literary Translation Workshop.
The primary focus of this course is the practice of literary translation
as an art. Using the workshop format, each student will complete a
project by the end of the semester. Examples and theoretical texts will
illuminate the historical, ethical, cultural, political, and aesthetic values that
underlie every translation, keeping an eye towards opening up the field
beyond inherited practices to consider the contemporary implications of
our choices, intentions, and purposes in translation. Open to all levels.
Heritage speakers are welcome, collaboration is permitted, and an open-
spirited approach to this developing and fascinating practice is strongly
recommended.
Fall COLT1710C S01  16720  W  3:00-5:30(17)  (S. Nakayasu)

COLT 1810P. Literature and Medicine.
The purpose of this course is to examine a number of central issues in
medicine-disease, pain, trauma, madness, the image of the physician--
from the distinct perspectives of the sciences and the arts. Texts will be
drawn from authors such as Sophocles, Hawthorne, Gilman, Tolstoy,
Kafka, Anderson, O'Neill, Hemingway, Ionesco, Verghese, Barker, Sacks,
Foucault, Sontag, Scarry, Gawande and others. Open enrollment course: lecture + section.
Fall COLT1810P S01  16644  ThH  10:30-11:50(13)  (A. Weinstein)

COLT 1811L. Travel, Tourism, Trafficking through the Ages.
Why go away to find ourselves? How does the self constitute itself
"elsewhere"? This course considers the genre of travel writing and its
theory: how are roots, routes, and rootlessness treated in diverse
racial, spiritual, sexual, national, and imperial encounters. Today, when
cosmopolitan tourists, intellectuals, or exotic and erotic adventurers
share the same beach as down trodden, abode refugees and their traffickers,
what are the cultural, ethical and political implications of leisurely seeking out (self-) discovery, disappearing authenticity, and
commodified otherness? Readings include Herodotus, Equiano, Chatwin,
Kingsley, Montagu, Darwin, Twain, Miller, Durrell, Baldwin, Phillips, Iyer,
Houellebecq, Woolf, Thompson, Tournou, Baudrillard
Fall COLT1811L S01  16777  MWF  12:00-12:50(15)  (V. Calotychos)

COLT 1813M. Making a List.
The list is one of the most ancient and enduring figures of rhetoric and
one of the most versatile means of organizing literary works. From the
catalogues of Homeric epic to the postmodern fables of Borges to new
digital media, from medieval encyclopedia to Renaissance copia, from
the descriptive realism of novels to modernist techniques of collage, the
simple list has produced an astonishing variety of effects in a wide range
of genres and authors. We will read widely in this course, from many
periods, literatures, authors, and genres.
Spr COLT1813M S01  25922  ThH  9:00-10:20(01)  (K. Haynes)

COLT 1813N. Early Modern Women's Writing.
Interested in women writers, feminism? If so, it's vital to understand their
early modern origins. This course explores the rich feminist tradition
enacted in the often edgy texts of women writing on the cusp of modernity.
We study writers from England, France, Latin America, North America,
and Spain, focusing on self-fashioning, gender and sexuality, love and
marriage, imagined worlds, religion, eccentricity, and writing and fame.
Authors include Anne Bradstreet, Margaret Lucas Cavendish, Sor Juana
Inés de la Cruz, Mme de Lafayette, Maria de Zayas. Enrollment limited to 20.
Texts and class in English.
Spr COLT1813N S01  25443  F  3:00-5:30(15)  (S. Merrim)

COLT 1814U. Politics of Reading.
What do we do when we read? And do we even do something, or, as
Blanchot suggests, do we rather let be? While being true to Michel de
Certeau's plea for a "politics of reading" and an "autonomy of the reader",
we will question its binary logic (active vs. passive): 1. by looking closely
at the (de)construction of a "sovereign reader" in Hobbes' Leviathan; 2.
by analyzing the reading imperative—"Read!"—as it is staged in Plato's
and, above all, in Sade's erotica; 3. by taking seriously Walter Benjamin's
paradoxical intuition that one should "read what was never written".
Spr COLT1814U S01  25809  W  3:00-5:30(10)  (P. Szendy)

Reading Hannah Arendt's The Human Condition and Sylvia Wynter's
"1492: A New World View," and Franz Fanon's Wretched of the Earth, we
will ask what active life consists of, and at the same time attempt to track
down, identify, catalogue, inventorize and imagine a diverse repertoire of
modes destroyed, damaged and repressed under imperialism. We will
use archives, photographs, films, drawings, texts and maps to create an
archive of a plurality of political possibilities.
Spr COLT1815J S01  26110  M  3:00-5:30(13)  (A. Azoulay)

COLT 1815L. The Marriage Plot.
Jeffrey Eugenides' The Marriage Plot will launch our consideration of
a series of marriage plots in novels and film. Reading will include well-
known novels by Austen, Brontë, James, Wharton, Updike, and some
classic films that also rely on the marriage plot. Some attention to counter
examples of what might be termed the "adultery" plot (Madame de
Lafayette, Flaubert), in order to think about the uses of the marriage plot
and the cultural work such plots perform.
Fall COLT1815S S01  17188  M  3:00-5:30(05)  (K. Newman)

COLT 1815M. Literature and Multilingualism (GRMN 1340X).
Interested students must register for GRMN 1340X.
Spr COLT1815M S01  26060  Arranged  'To Be Arranged'

Section numbers vary by instructor. Please check Banner for the correct section
number 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  15269  Arranged  'To Be Arranged'
Spr COLT2450 S01  24166  Arranged  'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
COLT 2540L. Comparative Modernisms.
When was modernism? Where was modernism? Whose was modernism? How can we use it now? Answers to these questions have changed radically over the past few years, as scholars have developed more expansive, inclusive, interdisciplinary understandings of a movement always on the move, changing shape and meaning according to its sites, practitioners, and publics. This seminar teaches students to recognize and read modernist artforms and practices—in literature, film, performance, and the visual arts—across an international horizon, and to put them in conversation with one another, with their contexts, and with our own.
Fall COLT2540L S01 16179 F 3:00-5:30(11) (M. Clayton)

COLT 2650U. Theory, Technics, Religion (ENGL 2901K).
Interested students must register for ENGL 2901K.
Spr COLT2650U S01 26042 Arranged "To Be Arranged"

COLT 2650V. Italian Theory: In and Out (HMAN 2400U).
Interested students must register for HMAN 2400U.
Spr COLT2650V S01 26043 Arranged "To Be Arranged"

COLT 2720C. Literary Translation.
Study and practice of translation as art and a potent form of literary criticism. Translation is an act of interpretation, which informs the language of the translator and the text as a whole: context, intent, and language. Discussion will include the impact of cultural difference, tone and time on translation, and the role of analytical as well as intuitive understanding of the original in the translator's endeavor.
Spr COLT2720C S01 25419 M 3:00-5:30(13) (O. Mostefai)

COLT 2820M. Discourses of the Senses.
A comparative study of a variety of discourses dealing with the relation among the senses, the arts, and the problems of comparativity, interdisciplinarity, and intermediality. Topics will include ekphrasis, synaesthesia, mysticism and the theory of correspondence, the Gesamtkunstwerk, and the limits between media. Readings from Condillac, Lessing, Kant, Swedenborg, the German Romantics, Baudelaire, Wagner, Baudelaire, Lacoue-Labarthe, Nanyc, Panofsky, Tschumi and others.
Fall COLT2820M S01 15955 M 3:00-5:30(05) (S. Bernstein)

COLT 2822A. War.
A century ago, the mass scale of modern industrial warfare seemed to mark a break in Western philosophy and literature. Innovative theoretical analyses and a new, self-conscious genre of "war poetry" emerged to engage with the consequences of the mass slaughter, concerned with such topics as nihilism, the limits of empathy, and the discontinuity of experience. These issues only intensified after the Second World War and have remained pressing. We will read representative texts from the First World War to the present, exploring such issues as the linguistic representation of war, the problem of visibility, and the civilian-military divide.
Spr COLT2822A S01 25283 W 3:00-5:30(10) (E. Whitfield)

COLT 2822B. Introduction to Italian Studies (ITAL 2100).
Interested students must register for ITAL 2100.
Fall COLT2822B S01 17612 Arranged "To Be Arranged"

COLT 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.

COLT 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall COLT2990 S01 15270 Arranged "To Be Arranged"
Spr COLT2990 S01 24167 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 16119 TTh 9:00-10:20(02) (D. Stanford)

CSCI 0030. Introduction to Computation for the Humanities and Social Sciences.
Introduces students to the use of computation for solving problems in the social sciences and the humanities. We will investigate a series of real-world problems taken from the news, from books such as Freakonomics, and from current research. Topics covered include data gathering, analysis, and visualization; web-based interfaces; algorithms; and scripting. Enrollment limited to 20. Instructor permission required.
Please go to https://goo.gl/forms/VIvWbOvFlsZ6nKSM2 to be added to the waitlist. You must use your Brown login to access the waitlist; requests to give access to non-Brown addresses will be ignored.
Spr CSCI0030 S01 25961 TTh 9:00-10:20(01) "To Be Arranged"

CSCI 0060. Practical System Skills.
An introduction to develop hands-on-computing skills necessary to comfortably work within a UNIX-like operating system. Topics include the shell, its filesystem, bash scripting, SSH, version control, as well as how to locally develop, deploy and publish a website.
Fall CSCI0060 S01 17735 TTh 4:00-5:20(09) (L. Spiegelberg)

CSCI 0081. TA Apprenticeship: Full Credit.
Being an undergraduate TA is a learning experience: one not only gets a deeper understanding of the course material, but gains management and social skills that are invaluable for one's future. Students taking this course must first be selected as an undergraduate TA for a Computer Science course, a course the student has taken and done well in. Students will work with the course's instructor on a variety of course-related topics, including preparation of material and development of assignments. Whether CSCI 0081 or its half-credit version (CSCI 0082) is taken is up to the professor of the course being TA'd. Instructor permission required.
Fall CSCI0081 S01 16120 Arranged (T. Doepner)
Spr CSCI0081 S01 24984 Arranged (T. Doepner)

CSCI 0082. TA Apprenticeship: Half Credit.
Being an undergraduate TA is a learning experience: one not only gets a deeper understanding of the course material, but gains management and social skills that are invaluable for one's future. Students taking this course must first be selected as an undergraduate TA for a Computer Science course, a course the student has taken and done well in. Students will work with the course's instructor on a variety of course-related topics, including preparation of material and development of assignments. Whether CSCI 0082 or its full-credit version (CSCI 0081) is taken is up to the professor of the course being TA'd. Instructor permission required.
Fall CSCI0082 S01 16121 Arranged (T. Doepner)
Spr CSCI0082 S01 24985 Arranged (T. Doepner)

CSCI 0100. Data Fluency for All.
This course is intended to introduce Brown students to computational techniques that data scientists use to tell stories. Data fluency encompasses both data literacy, the basics of statistics and machine learning, and data communication, which relies heavily on principles of design. Students will gain hands on experience using statistical tools such as ‘R’ to analyze real world data sets, and ‘ggplot’ to visualize them. Sample application domains include just about every field, since the only requirement is data, which there almost always are (e.g., the complete works of Shakespeare is a sample data set).
Fall CSCI0100 S01 16148 MW 1:00-1:50(06) (A. Greenwald)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
An introduction to computing and programming that focuses on understanding and manipulating data. Students will learn to write programs to process both tabular and structured data, to assess programs both experimentally and theoretically, to apply basic data science concepts, and to discuss big ideas around the communication and use of digital information.

Designed for both concentrators and non-concentrators, this is the first in an eventual three-course introductory sequence leading into advanced CS courses. Programming assignments will be smaller scale than in CSCI 0150/0170, thus allowing students time to practice programming and discuss computational ideas in a broader context.
Fall CSCI0111 S01 17380 MWF 1:00-1:50(06) (D. Woos)
Spr CSCI0111 S01 25984 MWF 9:00-9:50(02) (K. Fisler)

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 16122 TTh 6:40-8:00PM(10) (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 16123 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 24986 TTh 1:00-2:20(08) "To Be Arranged"

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 16124 MWF 10:00-10:50(14) (J. Hughes)
Fall CSCI0180 S01 24987 MWF 11:00-11:50(14) (K. Fisler)

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 0150-0160 and CSCI 0170-0180). Students wishing to take CSCI 0190 must pass a sequence of online placement assignments. Though the placement process is most appropriate for students who have had some prior programming experience, it is self-contained so all are welcome to try learning the provided material and attempting placement. Placement information will be available by June 1st at http://cs.brown.edu/courses/csci0190/. Students who do not successfully pass the placement process won’t be allowed to register.
Fall CSCI0190 S01 16125 MWF 9:00-9:50(01) (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 24988 MWF 1:00-1:50(06) (M. Littman)

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 24989 TTh 1:00-2:20(08) (T. Nelson)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 16126 MWF 2:00-2:50(07) (T. Doepner)

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 S02 17338 TTh 10:30-11:50(13) (L. De Stefani)

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 16128 TTh 10:30-11:50(13) (A. van Dam)

CSCI 1234 is a half-credit course intended to be taken concurrently with CSCI 1230 and provides students with a greater understanding of the material by having them extend each of 1230's assignments to greater depth.
Fall CSCI1234 S01 16129 Arranged (A. van Dam)

CSCI 1250. Introduction to Computer Animation.
Introduction to 3D computer animation production including story writing, production planning, modeling, shading, animation, lighting, and compositing. The first part of the course leads students through progressive exercises that build on each other to learn basic skills in 2D and 3D animation. At each step, student work is evaluated for expressiveness, technical correctness and aesthetic qualities. Students then work in groups creating a polished short animation. Emphasis on in-class critique of ongoing work which is essential to the cycle of visually evaluating work in progress, determining improvements, and implementing them for further evaluation.
Please see course website for application procedure.
Fall CSCI1250 S01 16147 MW 12:00-1:50(06) (B. Meier)

CSCI 1260. Compilers and Program Analysis.
Lexical analysis, syntactic analysis, semantic analysis, code generation, code optimization, translator writing systems. Prerequisites: CSCI 0220 and 0320: 0510 is recommended.
Fall CSCI1260 S01 16971 F 3:00-5:30(11) (S. Reiss)

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 16145 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 24990 WF 12:00-1:50(05) (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 16130 TTh 6:40-8:00PM(10) (J. Huang)

This course covers all aspects of web application development, including 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 24991 MWF 10:00-10:50(03) (S. Reiss)

Explores the visual and human-computer interaction design process for scientific applications in Brown's immersive virtual reality Cave. Joint with RISD. Computer Science and design students learn how to work together effectively; study the process of design; learn about scientific problems; create designs; critique, evaluate, realize and iterate designs; and demonstrate final projects. Instructor permission required.
Fall CSCI1370 S01 16131 TTh 10:00-11:50(13) (L. Laidlaw)

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.
Spr CSCI1380 S01 24992 TTh 10:30-11:50(09) 'To Be Arranged'

CSCI 1410. Artificial Intelligence.
Practical approaches 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 one of CSCI0220 or CSCI1450 or APMA1650 or APMA1655.
Fall CSCI1410 S01 16132 TTh 1:00-2:20(08) (G. Konidaris)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 sparsity-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. Comfort with basic Multivariable Calculus is recommended.
Spr CSCI1420 S01 24993 TTh 2:30-3:50(11) (S. Bach)

CSCI 1430. Computer Vision.
How can we program computers to understand the visual world? This course treats vision as inference from noisy and uncertain data and emphasizes probabilistic and statistical approaches. Topics may include perception of 3D scene structure from stereo, motion, and shading; segmentation and grouping; texture analysis; learning, object recognition; tracking and motion estimation. Strongly recommended: basic linear algebra, calculus, and probability.
Spr CSCI1430 S01 24994 MW 3:00-4:20(10) (J. Tompkin)

CSCI 1450. Probability for Computing and Data Analysis.
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. Students cannot get concentration credit for both CSCI1450 and APMA/1650/1655
Fall CSCI1450 S01 16133 TTh 2:30-3:50(03) (E. Upfal)

The application of computational methods to problems in natural-language processing. In particular we examine techniques due to recent advances in deep learning: word embeddings, recurrent neural networks (e.g., LSTMs), sequence-to-sequence models, and generative adversarial networks (GANs). Programming projects include parsing, machine translation, question answering, and chat-bots. The prerequisite of CS 1470 (or the equivalent background) is very important.
Spr CSCI1460 S01 24995 MWF 2:00-2:50(07) (E. Chamkani)

Deep learning is the name for a particular version of neural networks—a version that emphasizes multiple layers of networks. Deep learning, plus the specialized techniques that it has inspired (e.g. convolutional features and word embeddings) have lead to rapid improvements in many applications such as computer vision, machine translation, and computer Go. This course intends to give students a practical understanding of deep learning as applied in these and other areas. It also teaches the Tensorflow programming language for the expression of deep learning algorithms. (The primary API for Tensorflow is from Python.)
This course is using its own waitlist. If the course is full, you can sign up for the waitlist using this form: https://docs.google.com/forms/d/e/1FAIpQLSfE6OCnslYMT0s7yvLIIHhNC FiQhHkIC37T_PWpG7Cu9aSwv/viewform?usp=sf_link
You can check your position on the waitlist by submitting a request here: https://docs.google.com/forms/d/e/1FAIpQLSsEsSsF50NPsp40rAs9Pn5ZA92PbdHVeEUObKwVQvZGGIYAdYWV/viewform?usp=sf_link
Note that you must be logged in to your Brown Google account in order to view the waitlist.
IMPORTANT: "The course staff will not reply to emails about the waitlist." The instructions above tell you all you need to know about getting on it and checking where you are.
Fall CSCI1470 S01 16134 MWF 12:00-12:50(15) (D. Ritchie)

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.
Prerequisite: Basic probability theory course such as CSCI 1450.
Spr CSCI1550 S01 24996 TTh 2:30-3:50(11) (E. Upfal)

CSCI 1570. Design and Analysis of Algorithms.
A single algorithmic improvement can have a greater impact on our ability to solve a problem than ten years of incremental improvements in CPU speed. We study techniques for designing and analyzing algorithms. Typical problem areas addressed include hashing, searching, dynamic programming, graph algorithms, network flow, and optimization algorithms including linear programming. Prerequisites: CSCI 0160, CSCI 0180, or CSCI 0190, and one of CSCI 0220, CSCI 1010, CSCI 1450, MATH 0750, MATH 1010, MATH 1530.
Fall CSCI1570 S01 16135 MW 3:00-4:20(17) (P. Klein)

CSCI 1600. Real-Time and Embedded Software.
Comprehensive introduction to the design and implementation of software for programmable embedded computing systems, those enclosed in devices such as cellular phones, game consoles, and car engines. Includes the overall embedded real-time software design and development processes, as well as aspects of embedded hardware and real-time, small-footprint operating systems. Major project component. Prerequisites: CSCI 0320 or 0330.
Fall CSCI1600 S01 16970 TTh 9:00-10:20(02) (S. Reiss)

CSCI 1650. Software Security and Exploitation.
Covers software exploitation techniques and state-of-the-art mechanisms for protecting (vulnerable) software. It begins with a summary 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.
Fall CSCI1650 S01 16137 MW 1:00-2:20(06) (V. Kemerlis)

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.
Spr CSCI1670 S01 24997 MWF 2:00-2:50(07) (T. Doepner)

CSCI 1680. Computer Networks.
Covers the technologies supporting the Internet, from Ethernet and Wi-Fi through the routing protocols that govern the flow of traffic and the web technologies that are generating most of it. A major concern is understanding the protocols used on the Internet: what the issues are, how they work, their shortcomings, and what improvements are on the horizon.
Prerequisite: CSCI 0330 or consent of instructor.
Fall CSCI1680 S01 16138 TTh 1:00-2:20(08) (R. Fonseca)

CSCI 1690. Operating Systems Laboratory.
Half-credit course intended to be taken with CSCI 1670. Students individually write a simple operating system in C. Serves to reinforce the concepts learned in 1670 and provides valuable experience in systems programming. Corequisite: CSCI 1670.
Spr CSCI1690 S01 24998 Arranged (T. Doepner)
CSCI 1730. Design and Implementation of Programming Languages.
Explores the principles of modern programming languages by implementation. Examines linguistic features, especially control operators such as first-class functions, exceptions, and continuations. Studies data and their types, including polymorphism, type inference, and type soundness. Examines compiler and run-time system topics: continuation-passing style and garbage collection. Prerequisite: CSCI 0160, CSCI 0180 or CSCI 0190. Preferred: CSCI 0220, either CSCI 0320 or CSCI 0330, and CSCI 0510.
Fall CSCI1730 S01 16139 MWF 11:00-11:50(16) (S. Krishnamurthi)

CSCI 1800. Cybersecurity and International Relations.
The global Internet shortens distances, makes businesses more efficient and facilitates greater social interaction. At the same time, it exposes vital national resources to exploitation and makes it easier for the international criminal element to prey on innocent Internet users. Cybersecurity is concerned with making the Internet a more secure and trustworthy environment. In this course we study this topic from the technological and policy points of view. The goal is to facilitate communication across the divide that normally characterizes the technological and policy communities.
Spr CSCI1800 S01 24999 MW 3:00-4:20(10) (J. Savage)

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. Laws protecting privacy and civil liberties are stuck in the analog age, while the capabilities for mass digital surveillance continue to advance rapidly. This course will examine a variety of informational privacy and technology issues. A major theme: the historical and contemporary struggle to bring surveillance under democratic control to protect against abuses of privacy, civil liberties and human rights.
Fall CSCI1805 S01 16715 TTh 9:00-10:20(02) (T. Edgar)

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.
Prerequisites: CSCI 0160, CSCI 0180 or CSCI 0190, or consent of instructor.
Fall CSCI1810 S01 16140 TTh 2:30-3:50(03) (S. Istrail)

The course is devoted to computational and statistical methods as well as software tools for DNA, RNA, and protein sequence analysis. The focus is on understanding the algorithmic and mathematical foundations of the methods, the design of associated genomics software tools, as well as on their applications. Topics include: sequence alignment, genome assembly, gene prediction, regulatory genomics, and SNP’s variation. The course is open to computer and mathematical sciences students as well as biological and medical students.
Spr CSCI1820 S01 25000 TTh 2:30-3:50(11) (S. Istrail)

CSCI 1870. Cybersecurity Ethics.
This timely, topical course offers a comprehensive examination of ethical questions in cybersecurity. These issues pervade numerous, diverse aspects of the economy and society in the Information Age, from human rights to international trade. Students will learn about these topics, beginning first with acquaintance with the dominant ethical frameworks of the 20th and 21st centuries, then employing these frameworks to understand, analyze and develop solutions for leading ethical problems in cybersecurity. The things that you learn in this course will stay with you and inform your personal and professional lives.
Fall CSCI1870 S01 17195 M 3:00-5:30(05) (D. Hurley)

CSCI 1900. csciStartup.
In csciStartup, you will incorporate and run a startup. Apply as a team to be part of a prototype class to remove the mystery from starting a company and to focus entirely on a product you’re passionate about. Teams will incorporate, build a product for real customers, advertise their product, and improve it week after week. We’ll spend half our class meetings with individual attention to each group’s progress and how to improve your offerings. Assignments will be designed to apply to any company, with enough flexibility to ensure you’re always working on things that make sense for your business.
Spr CSCI1900 S01 25001 M 3:00-5:30(13) (J. Jannotti)

CSCI 1950N. 2D Game Engines.
2D Game Engines covers core techniques used in the development of the software that drives computer games and other interactive software. Projects involve building different varieties of 2D game engines as well as games that require use of the features implemented in the engines. Topics include high-level engine design, vector and raster graphics, animation, collision detection, physics, content management, and game AI. Prerequisite: CSCI 0160, 0180, or 0190.
Fall CSCI1950N S01 16778 W 3:00-5:30(17) (J. Tompkin)

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 have extensive automation such as model constructors, model checkers, and proof assistants. Problems and projects will apply to real-world systems. Prerequisite CSCI 0160, CSCI 0180, or CSCI 0190. Preferred but not required: CSCI 0220 and CSCI 0510, or instructor’s permission.
Spr CSCI1950Y S01 25002 MWF 10:00-10:50(03) (T. Nelson)

CSCI 1951A. Data Science.
Mastering big data requires skills spanning a variety of disciplines: distributed systems over statistics, machine learning, and a deep understanding of a complex ecosystem of tools and platforms. Data Science refers to the intersection of these skills and how to transform data into actionable knowledge. This course provides an overview of techniques and tools involved and how they work together: SQL and NoSQL solutions for massive data management, basic algorithms for data mining and machine learning, information retrieval techniques, and visualization methods.
Prerequisites: CSCI 0160, CSCI 0180, or CSCI 0190. One of CSCI 0330 or CSCI 0320 strongly recommended.
Spr CSCI1951A S01 25003 TTh 9:00-10:20(01) (E. Pavlick)

CSCI 1951C. Designing Humanity Centered Robots.
Offered by Brown’s Computer Science department under the auspices of the Humanity Centered Robotics Initiative. It is focused on the iterative design process and how it can be used to develop robots for solving tasks that help people. It will expose students to a suite of fabrication and prototyping technologies sufficient for creating a functioning robotic system.
https://www.youtube.com/watch?v=DBw1s_i_b78
The course has two tracks, one intended for CS concentrators, and one intended for non-concentrators with previous design experience. The non-concentrator track cannot be used toward fulfilling a Computer Science concentration requirement.
Fall CSCI1951C S01 16716 MW 9:00-11:50 (I. Gonsher)

CSCI 1951I. CS for Social Change.
Working in a studio environment to iteratively design, build, and test technical projects in partnership with different social change organizations, students will be placed in small teams to collaboratively work on projects whose range from developing a chatbot to aid community engagement to conducting geospatial data analytics. We will also reflect on our positionality and ethics in engaging in social impact work and what it practically means to leverage technology to create social change on an everyday basis. Enrollment limited to 12. Entry to this course is through application only: https://docs.google.com/forms/d/1wmCbmB6dpO10-FCJe5s0fgxAQOOGCE3Bm1tD7J1Uw/edit
Spr CSCI1951I S01 25004 MW 3:00-4:20(10) (U. Cettinelli)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
CSCI 1951K. Algorithmic Game Theory.
This course examines topics in game theory from a computer scientist's perspective. Through the lens of computation, this course will focus on the design and analysis of systems involving self-interested agents, investigating how strategic behavior should influence algorithm design, which game-theoretic solution concepts are practical to implement, and the ramifications of conflicts of interest between system designers and participating agents. Topics include: auctions and mechanism design, equilibria, and learning.
Spr CSCI1951K S01 25005 W 3:00-5:30(10) (A. Greenwald)

CSCI 1951M. Great Ideas in Computer Science.
Students will read and present major papers from across all areas of computer science in the last 70 years. The course is intended for sophomores and above who are interested in understanding how "great ideas" have driven vast and persevering shifts in computer science. While the tech industry constantly seeks the "latest and greatest," in this class we will instead seek to understand and identify enduring sources of valuable innovation and future conceptual development. Students will read research papers, multiple assignments and presentations to the class, weekly short responses to papers, and a final project. The class is heavily discussion-based.
Fall CSCI1951M S01 17844 TTh 1:00-2:20(08) (P. Valiant)

CSCI 1951R. Introduction to Robotics.
Each student will learn to program a small quad-rotor helicopter. We will provide each student with their own robot for the duration of the course. The course will cover PID controllers for stable flight, localization with a camera, mapping, and autonomous planning. At the end of the course, the aim is for students to understand the basic concepts of a mobile robot and aerial vehicle. Enrollment by instructor permission.
Fall CSCI1951R S01 16141 TTh 10:30-11:50(13) (S. Telleix)

Independent study in various branches of Computer Science. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

CSCI 1971. Independent Study in 2D Game Engines.
2D Game Engines covers core techniques used in the development 2D game engines. Projects involve building different varieties of 2D game engines as well as games that require use of the features implemented in the engines. Topics include high-level engine design, vector and raster graphics, animation, collision detection and response, physics, content management, and game AI. Prerequisite: CSCI 0160, 0180, or 0190.
Fall CSCI1971 S01 16146 MWF 12:00-12:50(15) (D. Ritchie)

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.
Fall CSCI1972 S01 15271 Arranged 'To Be Arranged' (S. Kamara)

Important current topics in computer graphics. Course includes reading and discussing current research papers, multiple assignments and preliminary projects in which students implement recent papers, and a demanding final integrative project done in small groups. Prerequisite: Instructor's permission or both CSCI 0320 AND CSCI 1230.
Spr CSCI2240 S01 25008 MWF 11:00-11:50(04) (D. Ritchie)

CSCI 2270. Topics in Database Management.
In-depth treatment of advanced issues in database management systems. Topics vary from year to year and may include distributed databases, mobile data management, data stream processing and web-based data management. Prerequisite: CSCI 1270.
Spr CSCI2270 S01 25009 M 3:00-5:30(13) (S. Zdonik)

CSCI 2390. Privacy-Conscious Computer Systems.
We will examine research papers on distributed system design, privacy-preserving, and secure computing techniques, and discuss how to apply these ideas in practice. The goal is to understand if, and how we can better protect the sensitive data we entrust to computer systems, both against leaks and against unauthorized or unethical use. We will look at web services, datacenter systems, distributed communication systems, and machine learning systems. During class, you will present and discuss papers, finish a set of hands-on assignments, work on a research project, and present your project at the end of the semester. Pre-requisite: CSCI 0330 and CSCI 1380 or instructor permission. CSCI 1670/1690 and CSCI 1660 are recommended.
Fall CSCI2390 S01 17822 TTh 2:30-3:50(03) (M. Schwarzkopf)

CSCI 2450. Exchange Scholar Program.
Fall CSCI2450 S01 15271 Arranged 'To Be Arranged' (S. Kamara)

Deep learning is the name for a particular version of neural networks--a version that emphasizes multiple layers of networks. Deep leaning, plus the specialized techniques that it has inspired (e.g. convolutional features and word embeddings) have lead to rapid improvements in many applications such as computer vision, machine translation, and computer Go. This course intends to give students a practical understanding of deep learning as applied in these and other areas. It also teaches the Tensorflow programming language for the expression of deep leaning algorithms. A final project will implement an advanced piece of work in one of these areas. Pre Requisites: A basic programming course; (CSCI 0150, 0170 or 0190) A linear algebra course; (CSCI 0530, MATH 0520 or 0540) A stats / probability course; (CSCI 0220, 1450, 0450, MATH 1610, APMA 1650 or 1655).
This course is using its own waitlist. If the course is full, you can sign up for the waitlist using this form: https://docs.google.com/forms/d/e/1FAIpQSLScY3hForsG3orK2uwccEvnaXsqMR_tbYsnaUrysk6X18zHg/viewform?usp=sf_link
You can check your position on the waitlist by submitting a request here: https://docs.google.com/forms/d/e/1FAIpQLSdh5tvQH-4e2LuBEo_ei7YpGQFQMFo75kOHQvdhmjeAgGEw/viewform?usp=sf_link
Note that you must be logged in to your Brown Google account in order to view these links.
IMPORTANT: "The course staff will not reply to emails about the waitlist."
The instructions above tell you all you need to know about getting on it and checking where you are.
Fall CSCI2470 S01 16146 MWF 12:00-12:50(15) (D. Ritchie)

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 15272 Arranged 'To Be Arranged' (M. Schwarzkopf)

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, surveillance and finance. Topics will vary each year. Pre Requisites: CSCI 1660 and CSCI 1510 recommended.
Fall CSCI2950V S01 16142 TTh 10:30-11:50(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 16143 TTh 2:30-3:50(03) (M. Littman)

CSCI 2951L. 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/2YPO7A. Selected students will receive an override code before the end of shopping period.

Fall CSCI2951L S01 17646 MW 3:00-4:20(17) (J. Tompkin)

CSCI 2951K. Topics in Collaborative Robotics.
Practical approaches 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. Prerequisite: CSCI 1410, 1420, 1460, 1480, or 1950F; or instructor permission.

Spr CSCI2951K S01 25010 TTh 10:30-11:50(09) (S. Telleix)

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 goodies (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 25012 M 3:00-5:30(13) (V. Kemerlis)

CSCI 2952F. Distributed Systems at Scale: Infrastructure for Online Web Services.
In this class, we will explore the broader theme of understanding the design principles for architecting large scale distributed systems for online web services and big data analytics. Of particular interest will be implications of various design choices on latency both between applications within the cloud and between external facing services and the users they serve. The goal is to touch upon relevant dimensions in the design space ranging from consistency models, networking, storage, virtualization, and big data application frameworks to cloud security and reliability.

For more information, please see http://cs.brown.edu/courses/info/csci2952F/.

Fall CSCI2952F S01 17497 MW 1:00-2:30(06) (T. Benson)

CSCI 2952G. Deep Learning in Genomics.
Deep learning models have achieved impressive performance in fields like computer vision and NLP. Given an adequate amount of data, these models can extract meaningful representations to perform accurate predictions. The collection of vast quantities of biological data naturally leads to the question -- can deep learning help us understand genomics? In this seminar-style class, we will cover the recent research literature trying to answer this question. We will learn how state-of-the-art models like CNNs, RNNs, GCNs, GANs, etc. have been applied to solve significant problems in genomics and what unique challenges are presented by the data in this field. Students wishing to take this course must fill out this form and attend the first class: https://forms.gle/JUGLHjDdEN4pK5Q9

Fall CSCI2952G S01 17556 MW 2:00-3:20(07) (R. Singh)

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 residency requirement and are continuing research on a full time basis.

Fall CSCI2990 S01 15273 Arranged 'To Be Arranged'
Spr CSCI2990 S01 24169 Arranged 'To Be Arranged'

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

Data Science

An introduction to the mathematical methods of data science through a combination of computational exploration, visualization, and theory. Students will learn scientific computing basics, topics in numerical linear algebra, mathematical probability (probability spaces, expectation, conditioning, common distributions, law of large numbers and the central limit theorem), statistics (point estimation, confidence intervals, hypothesis testing, maximum likelihood estimation, density estimation, bootstrapping, and cross-validation), and machine learning (regression, classification, and dimensionality reduction, including neural networks, principal component analysis, and unsupervised learning).

Fall DATA1010 S01 17715 MWF 2:00-2:50(06) (S. Watson)
Fall DATA1010 S01 17715 MWF 1:00-1:50(06) (S. Watson)

DATA 1030. Introduction to Topics in Data and Computation Science.
Mastering big data requires skills spanning a variety of disciplines: distributed systems over statistics, machine learning, and a deep understanding of a complex ecosystem of tools and platforms. Data Science refers to the intersection of these skills and how to transform data into actionable knowledge. This course provides an overview of techniques and tools involved and how they work together: SQL and NoSQL solutions for massive data management, basic algorithms for data mining and machine learning, information retrieval techniques, and visualization methods.

Prerequisites: A course equivalent to CSCI 0050, CSCI 0150 or CSCI 0170 are strongly recommended.

Fall DATA1030 S01 17641 TTh 1:00-2:20(08) 'To Be Arranged'

DATA 1050. Data Engineering.
Provides an introduction to computer science and programming for data science. Coverage includes data structures, algorithms, analysis of algorithms, algorithmic complexity, programming using test-driven design, use of debuggers and profilers, code organization, and version control.

Additional topics include data science web applications, SQL and no-SQL databases, and distributed computing.

Fall DATA1050 S01 17642 TTh 9:00-10:20(02) (D. Potter)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
DATA 1200. Reality Remix - Experimental VR.
This course pursues collaborative experimentation with virtual and augmented reality (AR and VR). The class will work as a team to pursue research (survey of VR/AR experiences, scientific and critical literature review), reconnaissance (identifying VR/AR resources on campus, in Providence and the region), design (VR/AR prototyping). Research findings are documented in a class wiki. The course makes use of Brown Arts Initiative facilities in the Granoff Center where an existing VR laboratory will be expanded through the course of the semester based on student needs. Class culminates in the release of a wiki as a resource for the Brown community.
Fall DATA1200 S01 17635 Th 6:00-9:00PM(10) (A. Momeni)

Includes topics in statistical learning including regression, classification, model selection, and causal inference.
Spr DATA2020 S01 26004 TTh 2:30-3:50(11) (R. DeVito)

DATA 2040. Deep Learning and Special Topics in Data Science.
A hands-on introduction to neural networks, reinforcement learning, and related topics. Students will learn the theory of neural networks, including common optimization methods, activation and loss functions, regularization methods, and architectures. Topics include model interpretability, connections to other machine learning models, and computational considerations. Students will analyze a variety of real-world data types and data types, including image and natural language data.
Spr DATA2040 S01 26073 TTh 1:00-2:20(08) 'To Be Arranged'

Development Studies

DEVL 1560. Economic Development in Latin America.
This course covers some of the unique events and characteristics that have shaped the economic development landscape of Latin America since colonial times until the present. Topics include: the historical legacy, why Latin America fell behind, import substitution industrialization, the debt crisis, poverty and income inequality, inflation, trade and financial liberalization and competitiveness. The class exposes students to a number of concepts and tools that can be broadly applied to the understanding of development in other geographic areas.
Fall DEVL1560 S01 17462 TTh 10:30-11:50(13) (V. Ingham)

DEVL 1801A. Infrastructure.
Infrastructure! It's the hardware and software that undergirds transportation, energy, water, and health systems. This course asks what we can learn about infrastructure when we approach it not as a neutral set of technologies but as a context-dependent social and political force. Taking a critical approach to (among others) natural resources, global health, and development, the course will trace how infrastructures have both served and obstructed colonial and contemporary projects for social change. The course will also take up the question of the future of infrastructure, including "green," modular, and "off the grid" technologies.
Fall DEVL1801A S01 17258 W 3:00-5:30(17) (A. Nading)

Section numbers vary by instructor.
Required: A completed proposal form and syllabus and faculty sponsor's and concentration advisor's approval prior to registering.

An integrative seminar designed for concentrators working on senior theses. Others with comparable backgrounds may enroll with written permission. Begins with a review of theoretical and methodological literature on development studies. Written and oral presentations of thesis research will be the central focus of the latter part of the course. Reserved for Development Studies seniors.
Fall DEVL1980 S01 17493 T 4:00-6:30(09) (P. Lewis)

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 17259 W 1:00-3:30(05) (N. Chorev)

DEVL 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall DEVL2990 S01 15274 Arranged 'To Be Arranged'
Spr DEVL2990 S01 24170 Arranged 'To Be Arranged'

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

Early Cultures

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

Required of seniors in the honors program. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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 15507 MWF 9:00-9:50(09) (L. Su)
Fall CHIN0100 S01 15507 TTh 9:30-10:20(09) (L. Su)
Fall CHIN0100 S02 15584 MWF 10:00-10:50(09) (L. Su)
Fall CHIN0100 S02 15584 TTh 10:30-11:20(09) (L. Su)
Fall CHIN0100 S03 15599 MWF 1:00-1:50(09) (L. Su)
Fall CHIN0100 S03 15599 TTh 1:30-2:20(09) (L. Su)
Fall CHIN0100 S04 15600 MWF 2:00-2:50(09) (L. Su)
Fall CHIN0100 S04 15600 TTh 2:30-3:20(09) (L. Su)

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 24301 MWF 9:00-9:50(16) 'To Be Arranged'
Spr CHIN0200 S01 24301 TTh 9:30-10:20(16) 'To Be Arranged'
Spr CHIN0200 S02 24683 MWF 10:00-10:50(16) 'To Be Arranged'
Spr CHIN0200 S02 24683 TTh 10:30-11:20(16) 'To Be Arranged'
Spr CHIN0200 S03 24684 MWF 1:00-1:50(16) 'To Be Arranged'
Spr CHIN0200 S03 24684 TTh 1:30-2:20(16) 'To Be Arranged'
Spr CHIN0200 S04 24685 MWF 2:00-2:50(16) 'To Be Arranged'
Spr CHIN0200 S04 24685 TTh 2:30-3:20(16) 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 15601 MWF 12:00-12:50(09) (L. Jiao)
Fall CHIN0300 S02 15601 TTh 12:00-12:50(09) (L. Jiao)
Fall CHIN0300 S03 15602 MWF 1:00-1:50(09) (L. Jiao)
Fall CHIN0300 S04 15602 TTh 1:00-1:50(09) (L. Jiao)
Fall CHIN0300 S05 15603 MWF 2:00-2:50(09) (L. Jiao)
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 15604 TTh 12:00-12:50(15) (L. Su)
Fall CHIN0350 S02 15604 MWF 12:00-12:50(15) (L. Su)
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 24688 MWF 12:00-12:50(16) "To Be Arranged"
Spr CHIN0400 S02 24688 TTh 12:00-12:50(16) "To Be Arranged"
Spr CHIN0400 S03 24689 MWF 1:00-1:50(16) "To Be Arranged"
Spr CHIN0400 S04 24689 TTh 1:00-1:50(16) "To Be Arranged"
Spr CHIN0400 S05 24690 MWF 2:00-2:50(16) "To Be Arranged"
Spr CHIN0400 S06 24690 TTh 2:30-3:20(16) "To Be Arranged"
CHIN 0450. Advanced Chinese for Heritage Learners.
This course is primarily designed for Chinese heritage students who have successfully completed CHIN 0350. If you have not taken CHIN0350, please contact the instructor for a proficiency evaluation. Upon completing this course, you can take CHIN 0700 or equivalent, i.e. courses that have a prerequisite of CHIN 0600. This is an advanced-level course offering comprehensive work on all four language skills, with a focus on developing your ability to use sophisticated grammatical structures, vocabulary, and improving your reading and speaking skills. Materials used in this course will include a textbook, supplementary articles, and video clips.
Spr CHIN0450 S01 24686 TTh 12:00-12:50(05) "To Be Arranged"
Spr CHIN0450 S02 24686 MWF 12:00-12:50(05) "To Be Arranged"
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 15605 MWF 9:00-9:50(01) (Y. Wang)
Fall CHIN0500 S02 15605 TTh 9:00-10:20(01) (Y. Wang)
Fall CHIN0500 S03 15606 TTh 10:30-11:50(16) (Y. Wang)
Fall CHIN0500 S04 15606 MWF 11:00-11:50(16) (Y. Wang)
Fall CHIN0500 S05 15607 MWF 12:00-12:50(15) (Y. Wang)
Fall CHIN0500 S06 15607 TTh 12:00-12:50(15) (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 24691 MWF 9:00-9:50(16) "To Be Arranged"
Spr CHIN0600 S02 24691 TTh 9:00-10:20(16) "To Be Arranged"
Spr CHIN0600 S03 24692 TTh 10:30-11:50(16) "To Be Arranged"
Spr CHIN0600 S04 24692 MWF 11:00-11:50(16) "To Be Arranged"
Spr CHIN0600 S05 24693 MWF 12:00-12:50(16) "To Be Arranged"
Spr CHIN0600 S06 24693 TTh 12:00-12:50(16) "To Be Arranged"
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 15608 MWF 10:00-10:50(14) (L. Hu)
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 24694 MWF 10:00-10:50(03) "To Be Arranged"
CHIN 0920D. Business Chinese.
Business Chinese focuses on practical language skills that are most useful in business interactions in Chinese-speaking communities. Classroom activities are largely based on authentic documents and correspondence as well as a textbook. Through intensive practice in the listening, speaking, reading and writing of the Chinese language for business purposes, this course aims at enhancing students’ linguistic knowledge in a business context. Classes are conducted in Chinese. Prerequisite: CHIN 0800 or instructor permission. Enrollment limited to 18.
Spr CHIN0920D S01 24912 TTh 2:30-3:50(11) (Y. Wang)
CHIN 0920E. Two Sides of the Coin: Advanced Chinese Conversation.
Many of us know about the trolley scenario—would you kill one to save five? What do you think about organ trade—is it immoral for wealthy people to buy organs from the poor in order to save their lives or those of their loved ones? Who are really responsible for the atrocious organ harvesting in China? What is your stance on the Affirmative Action? Did you know China has an affirmative action as well? The goal of this course is to develop students’ communication skills in Chinese, with an emphasis on their listening and speaking skills, through in-depth discussions on controversial issues and moral dilemmas. Class materials will cover a broad range of topics and will not be limited to those unique to China. The majority of primary sources will be in Chinese. Prerequisite is CHIN0800 or equivalent.
Spr CHIN0920E S01 24696 TTh 10:30-11:50(09) "To Be Arranged"
This course is designed for advanced learners of Chinese to enhance their language proficiency, as well as to grasp essential skills to observe and appreciate Chinese culture from the perspective of language, especially through Chinese radicals, idioms, proverbs, taboos, verses, vernacular language and internet language. The teaching methods in this course include lecture, case studies, and heuristic approach etc. After taking this course, students are expected to have much deeper understanding of Chinese language and culture and be able to use the language in a near native and artistic way.
Fall CHIN0920H S01 16313 TTh 2:30-3:50(03) (L. Jiao)
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 15609 Th 4:00-6:30(04) (L. Wang)
CHIN 1910. Independent Study.
Reading materials for research in Chinese. Sections numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
CHIN 2450. Exchange Scholar Program.
Fall CHIN2450 S01 15263 Arranged "To Be Arranged"

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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? How has the relationship between the marketplace and childhood evolved over the past hundred years? How have class, gender, ethnicity and sexuality infected the ways childhood has been experienced? Students will analyze different cultural texts for and about children (early fairy tales, comic books, propaganda, film) in relation to critical essays drawn from a variety of disciplines.
Fall EAST0500 S01 15612 TTh 10:30-11:50(13) (S. Perry)

EAST 0531. Complicating Korean History: Topics and Issues.
Korea is known for its musicians, serene palaces, and North Korea. Under these ubiquitous stereotypes, however, it has an even more fascinating culture and history, punctuated by numerous invasions, colonialism, and division. In this interdisciplinary survey course, we explore various facets of Korea North and South, from foundation myths to contemporary life and address Korean history broadly, examining key debates around origins, colonialism, and division. We move chronologically through major cultural, political, economic moments that inform Korean identity, arriving at the particulars of North and South Korea today, from daily life, gender, the diaspora, to KPop, and consider Korean language and society. It will specifically examine the role of language in myriad 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, education in a social context, and so on. Knowledge of the Korean language is preferred but not required.
Fall EAST0531 S01 24682 TTh 2:30-3:50(11) (E. Choi)

EAST 0553. Beyond Gangnam Style: Seoul, Dislocation, and the Search for Place.
Seoul has become a celebrated cultural hub both within Asia and globally. However, underneath the glitter of modernity visible in the urban sprawl of Seoul’s “Gangnam Style” are forgotten stories, stratified claims, and a tumultuous history covering 35 years of Japanese rule, a war, and the ongoing presence of 28,500 American troops. This course will take an interdisciplinary approach to Seoul incorporating history, urban culture, literature and visual media, and engage key concepts informing the burgeoning field of Korean studies. Attention will be given to contestations over space, IT infrastructure, architectural spaces, and the emergence of new subjectivities.
Fall EAST0553 S01 17292 TTh 1:00-2:20(08) (E. Choi)

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, education in a social context, and so on. Knowledge of the Korean language is preferred but not required.
Spr EAST0650 S01 24703 W 3:00-5:30(10) (H. Wang)

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 Kkenzaburo, as well as writers lesser known outside of Japan today, including women, queers, revolutionaries and colonial/ resident Koreans.
Spr EAST0800 S01 24702 TTh 10:30-11:50(09) (S. Perry)

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.
Spr EAST1070 S01 24719 TTh 1:00-2:20(08) (L. Wang)

EAST 1090. Translating Korean: Fiction, Poetry & Film.
This class explores the theory and practice of translation in the context of Korean cultural production. Each week we shall grapple with a particular issue in translation studies in dialogue with a Korean-language text. By the end of this course students should be able to locate the tools necessary to carry out translations from Korean to English, to demonstrate an understanding of translation as a craft with its own standards, responsibilities, and complexities, and to have completed a significant translation project themselves. Learners of the Korean language who have completed Korean 600 as well as native speakers of Korean are welcome.
Fall EAST1090 S01 15611 Th 4:00-6:30(04) (S. Perry)

This is a critical introduction to the history of mainland Chinese film. It focuses on three dimensions of cinematic practice: the historical context of film productions, the specific context/form of each film, and the critical reception of Chinese films in film studies. Important themes such as nation, visual modernity, cinematic narrative, and commercialism will be studied across the three dimensions.
Fall EAST1270 S01 15613 TTh 1:00-2:20(08) (L. Wang)

EAST 1290. The Korea “Brand”: Understanding KPop, Film, and Culture of the Two Koreas in the Global Context.
The global media has recently showcased two newsworthy events related to Korea: BTS at the 2018 BMAs, and the Inter-Korea Summit. This course examines the arrival of “Korea” globally, from the West’s fascination with the North Korean nuclear crises, to the hype around KPop, KFilm, cosmetics, food, and eSports. We will question the fascination with NK in US media outlets, versus its treatment in SK media. The ways in which the particular, local, and authentic, within Korean cultural production negotiates the global market is of particular interest.
Fall EAST1290 S01 16283 T 4:00-6:30(09) (E. Choi)

Korean films are often identifiable within two distinct tropes – the beautiful, tranquil Orient and a violent, frenetic hyper-modernity. Koreans, however, grapple with identifying themselves and their modern experiences differently beyond how the international community and the “West” sees them – as the exotic “East.” Seeking to understand and complicate this dichotomy, we will explore how Korea has struggled to hone and complicate national identity (their critique, their futurities) through film, and examine how Korea has been struggling since the 1990s to overcome the national in the face of globalization and cosmopolitanism to address the local and the liminal.
Spr EAST1292 S01 25713 T 4:00-6:30(16) (E. Choi)

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
Spr EAST1490 S01 24699 F 3:00-5:30(15) (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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Course focuses on mainland Chinese cultural and media production since the mid 1980’s, when China began transforming itself culturally and economically into a capitalist society with socialist characteristics. Traditional values, socialist legacy, commercial forces, and globalization have all played significant roles in the ongoing transformation. The goal of the course is to examine the complex interactions among diverse historical forces in a rapidly changing China. Course taught in Mandarin Chinese.
Spr EAST1950G S01 24720 M 3:00-5:30(13) (L. Wang)

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 15275 Arranged ‘To Be Arranged’

EAST XLIST. Courses of Interest to Concentrators.
Fall 2019
East Asian Studies is a highly interdisciplinary concentration. The following courses in other departments can be taken for concentration credit. Please check the listing of the appropriate department for the time and location of each course.

History
HIST 1120 At China’s Edges
HIST 1141 Japan in the Age of the Samurai

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 15615 MWF 9:00-9:50(09) (H. Tajima)
Fall JAPN0100 S01 15615 TTh 9:00-10:20(09) (H. Tajima)
Fall JAPN0100 S02 15616 MWF 10:00-10:50(09) (H. Tajima)
Fall JAPN0100 S02 15616 TTh 10:30-11:50(09) (H. Tajima)
Fall JAPN0100 S03 15617 MWF 1:00-1:50(09) (H. Tajima)
Fall JAPN0100 S03 15617 TTh 1:00-2:20(09) (H. Tajima)
Fall JAPN0100 S04 15618 MWF 11:00-11:50(09) (H. Tajima)
Fall JAPN0100 S04 15618 TTh 2:30-3:50(09) (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 24704 MWF 9:00-9:50(16) ‘To Be Arranged’
Spr JAPN0200 S01 24704 TTh 9:00-10:20(16) ‘To Be Arranged’
Spr JAPN0200 S02 24705 MWF 10:00-10:50(16) ‘To Be Arranged’
Spr JAPN0200 S02 24705 TTh 10:30-11:50(16) ‘To Be Arranged’
Spr JAPN0200 S03 24706 MWF 1:00-1:50(16) ‘To Be Arranged’
Spr JAPN0200 S03 24706 TTh 1:00-2:20(16) ‘To Be Arranged’

Further practice of patterns and structures of the language. Readings are introduced on aspects of Japanese culture and society to develop reading and writing skills, enhance vocabulary, and provide points of departure for conversation in Japanese. Prerequisite: JAPN 0200 or equivalent. The East Asian Studies department wishes to provide language instruction to all interested students. If you are unable to register for this course due to enrollment limits but are dedicated to learning Japanese, please contact the instructor via email.

Fall JAPN0300 S01 15619 MWF 11:00-11:50(09) (N. McPherson)
Fall JAPN0300 S01 15619 TTh 11:00-11:50(09) (N. McPherson)
Fall JAPN0300 S02 15620 MWF 12:00-12:50(09) (N. McPherson)
Fall JAPN0300 S02 15620 TTh 12:00-12:50(09) (N. McPherson)

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

Spr JAPN0400 S01 24708 TTh 10:30-11:50(16) ‘To Be Arranged’
Spr JAPN0400 S01 24708 MWF 11:00-11:50(16) ‘To Be Arranged’
Spr JAPN0400 S02 24709 MWF 12:00-12:50(16) ‘To Be Arranged’
Spr JAPN0400 S02 24709 TTh 12:00-12:50(16) ‘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 Japanese 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 15621 MWF 9:00-9:50(09) (S. Hiramatsu)
Fall JAPN0500 S01 15621 TTh 9:00-9:50(09) (S. Hiramatsu)
Fall JAPN0500 S02 15622 MWF 10:00-10:50(09) (S. Hiramatsu)
Fall JAPN0500 S02 15622 TTh 12:00-12:50(09) (S. Hiramatsu)

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

Spr JAPN0600 S02 24711 TTh 12:00-12:50(16) ‘To Be Arranged’
Spr JAPN0600 S02 24711 MWF 10:00-10:50(16) ‘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 15623 MWF 2:00-2:50(07) (A. Borgmann)

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

Spr JAPN0800 S01 24712 MWF 2:00-2:50(07) (K. Yamashita)

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.
Spr JAPN0910A S01 25912 MWF 1:00-1:50(06) (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 15625 MWF 1:00-1:50(05) (K. Yamashita)
JAPN 1010. Readings in Contemporary Japanese Fiction.
Introduces contemporary short stories and novels by award winning writers published after 2000. Authors include Yoko Ogawa, Natsume Kirino, Jiro Asada, Bin Konno. We will analyze why the great many readers are drawn into these literary works through socio cultural background of urban communities. Prerequisites: JAPN0700 or instructor permission.
Fall JAPN1010 S01 17352 M 3:00-5:30(05) (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.
Spr JAPN1310 S01 24713 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.

This advanced Japanese class offers students the chance to read classic works of modern Japanese literature in the original as we work our way through each decade of the 20th century. We will consider both the formal properties of fiction and the historical pressures of gender, ethnicity, class, imperialism and globalization. Authors include Natsume Soseki, Akutagawa Ryunosuke, Yoshia Nobuko, Kubokawa Ineko, Mishima Yukiko and Murakami Haruki, as well as ethnic Korean writers Ch’oe Chŏng-hŭi and Yan Sogiru, and others depending on student interest.
Spr JAPN1990 S01 25429 Th 4:00-6:30(17) (S. Perry)

Korean
KREA 0100. Korean.
 Begins with an introduction to the Korean writing system (Hangul) and focuses on building communicative competence in modern Korean in the four language modalities (listening, speaking, reading, writing). Provides a foundation for later work in spoken and written Korean. Six classroom hours per week. Enrollment limited to 18. This is the second half of a year-long course. Students must have taken KREA 0100 to receive credit for this course. The final grade for this course will become the final grade for KREA 0100. If KREA 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing.
Fall KREA0100 S01 15628 MWF 9:00-9:50(16) 'To Be Arranged'
Fall KREA0100 S01 15628 MWF 9:00-9:50(13) 'To Be Arranged'
Fall KREA0100 S01 15628 MWF 9:00-9:50(06) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(01) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(04) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(12) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(10) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(07) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(08) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(09) (H. Wang)
Fall KREA0100 S01 15628 MWF 9:00-9:50(11) (H. Wang)

KREA 0200. Korean.
 Begins 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 24714 MWF 9:00-9:50(16) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(13) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(10) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(07) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(06) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(04) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(03) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(02) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(01) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(03) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(04) 'To Be Arranged'
Spr KREA0200 S01 24714 MWF 9:00-9:50(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 15629 TTh 11:00-11:50(16) (H. Ha)
Fall KREA0300 S01 15629 TTh 11:00-11:50(13) (H. Ha)

See Intermediate Korean (KREA 0300) for course description. Prerequisite: KREA 0100-0200 or equivalent.
Spr KREA0400 S01 24717 TTh 11:00-11:50(16) 'To Be Arranged'
Spr KREA0400 S01 24717 TTh 11:00-11:50(13) 'To Be Arranged'
Spr KREA0400 S01 24717 TTh 11:00-11:50(10) 'To Be Arranged'
Spr KREA0400 S01 24717 TTh 11:00-11:50(07) '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 15630 MWF 1:00-1:50(06) (H. Wang)
Fall KREA0500 S01 15630 TTh 12:00-12:50(06) (H. Wang)

KREA 0600. Advanced Korean.
See Advanced Korean (KREA 0500) for course description. Prerequisite: KREA 0500 or equivalent or permission of instructor.
Spr KREA0600 S01 24718 MWF 1:00-1:50(16) 'To Be Arranged'
Spr KREA0600 S01 24718 MWF 1:00-1:50(13) 'To Be Arranged'
Spr KREA0600 S01 24718 MWF 1:00-1:50(10) 'To Be Arranged'
Spr KREA0600 S01 24718 MWF 1:00-1:50(07) 'To Be Arranged'
Spr KREA0600 S01 24718 MWF 1:00-1:50(04) 'To Be Arranged'
Spr KREA0600 S01 24718 MWF 1:00-1:50(01) '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 0600 or instructor’s permission.
Fall KREA0920BS01 15631 TTh 10:30-11:50(13) (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.

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

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<tr>
<th>Term</th>
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<th>Day(s)</th>
<th>Time</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>Fall</td>
<td>S01</td>
<td>15913</td>
<td>MWF</td>
<td>9:00-9:50</td>
<td>(R. Friedberg)</td>
</tr>
<tr>
<td>Spr</td>
<td>S01</td>
<td>24926</td>
<td>MWF</td>
<td>9:00-9:50</td>
<td>(R. Friedberg)</td>
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</tbody>
</table>

**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.

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<tbody>
<tr>
<td>Fall</td>
<td>S01</td>
<td>15939</td>
<td>MWF</td>
<td>11:00-11:50</td>
<td>(A. Poterack)</td>
</tr>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25385</td>
<td>MWF</td>
<td>10:00-10:50</td>
<td>(A. Poterack)</td>
</tr>
</tbody>
</table>

**ECON 0200. 20th Century Political Economy.**
This course covers major debates in the 20th century political economy, starting with the Bolshevik Revolution and the Treatise of Versailles. We examine the Great Depression, the New Deal, and Postwar economic planning in the US and UK. We then turn to consider important periods in the second half of the 20th century, including Indian Economic Planning, Bretton Woods, and inflation in the 1970s. The course ends with a consideration of trade, trade deficits, sovereign debt crises, and austerity. The aim is to develop an understanding of both sides of key debates in political economy.

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<tbody>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25915</td>
<td>4:00-6:30</td>
<td>(E. Skarbek)</td>
</tr>
</tbody>
</table>

**ECON 0510. Development and the International Economy.**
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.

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<tr>
<th>Term</th>
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<th>Day(s)</th>
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<tbody>
<tr>
<td>Fall</td>
<td>S01</td>
<td>15944</td>
<td>MWF</td>
<td>2:00-2:50</td>
<td>(D. Rastogi)</td>
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</table>

**ECON 0710. Financial Accounting.**
Basic accounting theory and practice. Accounting procedures for various forms of business organizations.

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<th>Term</th>
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<tbody>
<tr>
<td>Fall</td>
<td>S02</td>
<td>15946</td>
<td>TTh</td>
<td>6:00-7:30</td>
<td>(F. Sciolto)</td>
</tr>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25386</td>
<td>MWF</td>
<td>6:00-7:30</td>
<td>(T. Lonardo)</td>
</tr>
<tr>
<td>Spr</td>
<td>S02</td>
<td>25387</td>
<td>TTh</td>
<td>6:00-7:30</td>
<td>(T. Lonardo)</td>
</tr>
</tbody>
</table>

**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.

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<tr>
<td>Fall</td>
<td>S01</td>
<td>15947</td>
<td>TTh</td>
<td>9:00-10:20</td>
<td>(T. Mekonnen)</td>
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<tr>
<td>Fall</td>
<td>S02</td>
<td>15948</td>
<td>MWF</td>
<td>10:00-10:50</td>
<td>(P. Dal Bo)</td>
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<tr>
<td>Fall</td>
<td>S03</td>
<td>15949</td>
<td>MWF</td>
<td>2:00-2:50</td>
<td>(M. Rahman)</td>
</tr>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25388</td>
<td>MWF</td>
<td>12:00-12:50</td>
<td>(K. Chay)</td>
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<tr>
<td>Spr</td>
<td>S02</td>
<td>25389</td>
<td>MWF</td>
<td>9:00-10:00</td>
<td>(R. Vohra)</td>
</tr>
<tr>
<td>Spr</td>
<td>S03</td>
<td>25390</td>
<td>MWF</td>
<td>1:00-1:50</td>
<td>(R. Vohra)</td>
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</tbody>
</table>

**ECON 1120. 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).

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<tbody>
<tr>
<td>Fall</td>
<td>S01</td>
<td>16697</td>
<td>4:00-6:30</td>
<td>(E. Skarbek)</td>
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</tbody>
</table>

**ECON 1130. Intermediate Microeconomics (Mathematical).**
Microeconomic theory: Theories of the consumer and firm, comparative 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. The instructor(s) of this course utilize override codes to grant access for registration restrictions rather than the request/wait list feature in C@B. Please reach out to the instructor directly for an override.

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<th>Term</th>
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<tbody>
<tr>
<td>Fall</td>
<td>S01</td>
<td>15950</td>
<td>8:30-9:50</td>
<td>(R. Vohra)</td>
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<tr>
<td>Spr</td>
<td>S01</td>
<td>25391</td>
<td>9:00-10:20</td>
<td>(R. Serrano)</td>
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</tbody>
</table>

**ECON 1170. Welfare Economics and Social Choice Theory.**
Advanced microeconomic theory class for undergraduates. Building on the intermediate microeconomics 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.

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<tr>
<td>Fall</td>
<td>S01</td>
<td>17020</td>
<td>8:30-9:50</td>
<td>(R. Serrano)</td>
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</table>

**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.

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<tr>
<td>Fall</td>
<td>S01</td>
<td>15951</td>
<td>10:00-10:50</td>
<td>(M. Lancastre)</td>
</tr>
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<td>Fall</td>
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<td>15952</td>
<td>11:00-11:50</td>
<td>(M. Lancastre)</td>
</tr>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25393</td>
<td>10:00-10:50</td>
<td>(M. Lancastre)</td>
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<tr>
<td>Spr</td>
<td>S02</td>
<td>25394</td>
<td>11:00-11:50</td>
<td>(M. Lancastre)</td>
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</table>

**ECON 1225. Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies.**
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.

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<tbody>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25461</td>
<td>2:30-3:50</td>
<td>(G. Eggertsson)</td>
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</table>

**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.

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<tbody>
<tr>
<td>Spr</td>
<td>S01</td>
<td>25421</td>
<td>1:00-2:20</td>
<td>(K. Chay)</td>
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</tbody>
</table>
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.

Fall ECON1340 S01 16215 MW 8:30-9:50(01) (M. Turner)

This course equips students with theoretical and empirical tools to analyze environmental issues from the perspective of economics. First, we review when and why the markets fail, competing 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).

Spr ECON1350 S01 25598 MWF 2:00-2:50(07) (A. Poterack)

ECON 1360. Health Economics.
This course introduces students to the issues, theory and practice of health economics in the US. Topics include the economic determinants of health, the market for medical care, the market for health insurance and the role of the government in health care. Course work includes data analyses using the program STATA. Prerequisites: ECON 1110 or 1130; and ECON 1620, 1629, 1630, or APMA 1650 or CSCI 1450 or other statistics background. Enrollment limited to 24.

Spr ECON1360 S01 25600 M 3:00-5:30(13) "To Be Arranged"

ECON 1370. Race and Inequality in the United States.
We examine racial inequality in the United States, focusing on economic, political, social and historical aspects. Topics include urban poverty, employment discrimination, crime and the criminal justice system, affirmative action, immigration, and low wage labor markets. Black/white relations in the US are the principle but not exclusive concern.

Prerequisite: ECON 1110 or 1130. Enrollment limited to 25.

Fall ECON1370 S01 17427 TTh 10:30-11:50(13) (G. Loury)

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.

Spr ECON1400 S01 25469 TTh 9:00-10:20(01) (J. Shapiro)

ECON 1430. The Economics of Social Policy.
This course will cover research topics in the economics of social policy. The course will focus on understanding the context for key social policies in health, education, social welfare and other areas as well as understanding the methods that economists use to generate causal impacts of these policies.

Spr ECON1430 S01 26276 TTh 2:30-3:50(11) (E. Oster)

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 25508 MWF 9:00-9:50(02) (G. Siourounis)
Spr ECON1460 S02 26175 MWF 10:00-10:50(03) (G. Siourounis)

Bargaining theory is emerging as an important area within the general rubric of game theory. Emphasis is on providing a relatively elementary version of the theory in order to make it accessible to a large number of students. Covers introductory concepts in game theory, strategic and axiomatic theories of bargaining and their connections, applications to competitive markets, strikes, etc. Prerequisite: ECON 1110 or 1130. Enrollment limited to 100.

Fall ECON1470 S01 16704 TTh 1:00-2:20(08) (J. Fanning)

ECON 1480. Public Economics.
This course is an introduction to the economics of the public sector. We will cover theoretical and empirical tools of public economics and apply these tools to a wide range of issues including externalities, public goods, collective choice, social insurance, redistribution and taxation. The course will focus on questions such as: What should government do? How much should governments insure individuals against misfortune? How much should governments redistribute resources from high-income to low-income households? Throughout the course we will emphasize real-world empirical applications rather than hypothetical examples.

Spr ECON1480 S01 26007 MWF 12:00-12:50(05) "To Be Arranged"

ECON 1486. The Economic Analysis of Political Behavior.
Slow economic growth, controversial policy, and over a decade of continuous war have led many to question the extent to which government is a force for the common good. Blame is often assigned to specific politicians or ideological perspectives. Public choice economics instead analyzes the incentive structure within which political decisions take place, seeking to uncover the forces guiding the behavior of voters, legislators, judges, and other political agents. This course will examine the insights and limitations of the public choice perspective in the context of electoral politics, legislation, bureaucracy and regulation, and constitutional rules.

Spr ECON1486 S01 25422 W 3:00-5:30(10) (D. D’Amico)

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 16217 TTh 2:30-3:50(03) (B. Pakzad-Hurson)

ECON 1500. Current Global Macroeconomic Challenges.
Analysis of current economic challenges in the U.S., Europe, Japan, and China. Topics include fiscal and monetary policies, international trade, capital flows and exchange rate policy, and policies for long-run growth. Emphasis on macroeconomic policies in the individual nations and their interaction with each other. Prerequisites: ECON 1210. Also recommended: ECON 1550 and 1850. Enrollment limited to 100.

Spr ECON1500 S01 26736 MWF 12:00-12:50(05) (G. Siourounis)

ECON 1510. Economic Development.
This course is an introduction to development economics and related policy questions. It discusses the measurement of poverty and inequality; growth; population change; health and education; resource allocation and gender; land and agriculture; and credit, insurance, and savings.

The course provides a theoretical framework for the economic analysis of specific problems associated with developing economies, and introduces empirical methods used to evaluate policies aimed at solving these problems. By the end of the class, students will be able to discuss some of the “hot topics” in development, like microfinance, family planning, or the problem of “missing women” in South-East Asia.

Fall ECON1510 S01 17484 MWF 2:00-2:50(07) (A. Weisbrod)
**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.

Fall ECON1530 S01 16764 M 3:00-5:30(05) (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.

Spr ECON1540 S01 25466 TTh 2:30-3:50(11) (J. Blaum)

**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 25507 MWF 2:00-2:50(07) (G. Siourounis)

**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.

Spr ECON1590 S01 25468 TTh 10:30-11:50(09) (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.

Fall ECON1620 S01 16218 MW 3:00-4:20(17) ’To Be Arranged’

Spr ECON1620 S01 25396 TTh 1:00-2:20(08) (S. Michalopoulos)

**ECON 1629. Applied Research Methods for Economists.**

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 (e.g., 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 16227 TTh 9:00-10:20(02) (A. Aizer)

Spr ECON1629 S01 25403 TTh 10:30-11:50(09) (A. Aizer)

**ECON 1630. Mathematical 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.

Fall ECON1630 S01 16234 TTh 1:00-2:20(08) (S. Schennach)

Spr ECON1630 S01 25420 TTh 2:30-3:50(11) (A. Norets)

**ECON 1710. Investments I.**

The function and operation of asset markets; the determinants of the prices of stocks, bonds, options, and futures; the relations between risk, return, and investment management; the capital asset pricing model, normative portfolio management, and market efficiency. Prerequisite: ECON 1110 or 1130; and ECON 1620 or 1630 or APMA 1650 or CSCI 1450.

Fall ECON1710 S01 16235 MW 11:00-12:20(05) (S. Kuo)

Spr ECON1710 S01 25426 MW 12:00-1:20(15) (B. Gibbs)

**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, leveraged buyouts and corporate restructuring.

Prerequisite: ECON 1110 or 1130; and ECON 1620 or 1630 or APMA 1650 or CSCI 1450; ECON 1710.

Fall ECON1720 S01 16754 MW 12:00-1:20(15) (B. Gibbs)

Spr ECON1720 S01 25426 MW 12:00-1:20(05) (B. Gibbs)

**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.

Fall ECON1750 S01 16708 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.

Fall ECON1780 S01 16755 MW 10:00-11:20(14) (B. Gibbs)

**ECON 1780. Advanced Topics in Corporate Finance.**

This advanced, case-based seminar is focused on delving deeply into several key pillars of corporate finance: valuation, financing, cash management, and, importantly, business ethics. We will build upon concepts presented in earlier finance courses, in particular, ECON 1710 and ECON 1720, and will use MBA-level cases to explore in much greater detail several concepts introduced in these classes. This course is rigorous - we will be analyzing at least one case each week and qualitative and quantitative case write-ups will be required throughout the semester, as well as a comprehensive final project. We will have guest speakers throughout the semester.

Spr ECON1780 S01 26296 TTh 1:00-2:20(08) (B. Gibbs)

**ECON 1820. Theory of Behavioral Economics.**

This course provides a formal introduction to behavioral economics, focusing mostly on individual decision making. For different choice domains, we start by analyzing the behavior implied by benchmark models used by economists (e.g. rational choice, expected utility, exponential discounting). Experimental and empirical evidence is then used to highlight some limitations of these models, and to motivate new models that have been introduced to account for these violations. We will cover, for instance, models of limited attention, non-expected utility, and hyperbolic discounting.

Fall ECON1820 S01 16711 MW 8:30-9:50(01) (G. De Clippele)
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. Enrollment limited to 100.

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.

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

ECON 2010. Mathematics for Economists. Techniques of mathematical analysis useful in economic theory and econometrics. Linear algebra, constrained maximization, difference and differential equations, calculus of variations. Prerequisites: MATH 0100, or 0170, or 0180.

ECON 2020. Applied Economics Analysis. This course provides students with skills needed to integrate economic theory, econometric methods, and data management in the analysis of economic problems. Provides a hands-on perspective including assignments designed to deal with complicated issues. 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.

ECON 2030. Introduction to Econometrics I. The probabilistic and statistical basis of inference in econometrics. 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.

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. 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.

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. 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.

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. 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.

ECON 2070. Macroeconomics I. Consumption and saving, under both certainty and uncertainty; theory of economic growth; real business cycles; investment; and asset pricing. 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.

ECON 2080. Macroeconomics II. Money, inflation, economic fluctuations and nominal rigidities, monetary and fiscal policy, investment, unemployment, and search and coordination failure. 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.

ECON 2150. Market Design. This is a theoretical course in market design, specifically studying the theory and applications of matching. It is designed for students interested in market and mechanism design, and may also be of interest to students interested in utilizing applied theory in their research. The course will begin with an overview of matching markets, and will quickly move to recent advances and open research topics. 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.

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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ECON 2350. Inequality and Social Policy.
This is a survey course about economic and social inequality with a focus on the applied methods used to examine inequality. The course will provide a broad perspective on the causes and consequences of inequality, develop an understanding of the data and methods used to measure and analyze changes in income and wellbeing, and review selected topics relating to anti-poverty and social policy programs.
Spr ECON2350 S01 25506 TTh 2:30-3:50(11) "To Be Arranged"

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 25475 MW 9:00-10:20(02) (M. Tumer)

ECON 2450. Exchange Scholar Program.
Fall ECON2450 S01 15276 Arranged "To Be Arranged"
Fall ECON2450 S02 15277 Arranged "To Be Arranged"
Spr ECON2450 S01 24171 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 models, 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 16783 T 1:30-4:00(08) (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 16784 F 1:00-3:30(06) (J. Friedman)

ECON 2490. Public Finance II.
This course examines empirical work on (1) individual taxation and (2) human capital production. The goal of the course will be to provide graduate students with an overview of recent empirical methods and findings in these areas, and to identify promising research questions for their own work.
Spr ECON2490 S01 26219 MW 2:30-3:50 "To Be Arranged"

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.
Spr ECON2510 S01 26116 TTh 9:00-10:20(01) (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.
Fall ECON2520 S01 17716 MW 9:00-10:20(01) (A. Foster)

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 25479 TTh 1:00-2:20(08) (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 1-5 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 16786 MW 2:30-3:50(07) (A. Norets)

ECON 2620. Topics in Econometrics.
This course will begin with a survey of the literature on identification using instrumental variables, including identification bounds, conditional moment restrictions, and control function approaches. The next part of class will cover some of the theoretical foundations of machine learning, including regularization and data-driven choice of tuning parameters. We will discuss in some detail the canonical normal means model, Gaussian process priors, (empirical) Bayes estimation, and reproducing kernel Hilbert space norms. We will finally cover some selected additional topics in machine learning, including (deep) neural nets, text as data (topics models), multi-armed bandits, and data visualization.
Fall ECON2620 S01 17841 W 1:00-3:30 "To Be Arranged"

ECON 2630. Econometric Theory.
Standard and generalized linear models, simultaneous equations, maximum likelihood, Bayesian inference, panel data, nonlinear models, asymptotic theory, discrete choice, and limited dependent variable models.
Fall ECON2630 S01 16787 F 1:00-3:30(06) (S. Schennach)

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 16798 F 9:30-12:00(14) (O. Galor)

ECON 2860. Comparative Development.
Weighing the shadow of history on contemporary economic performance occupies an increasing 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 25487 T 5:00-7:30(18) (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 16790 T 5:00-7:30(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 25488 TTh 10:30-11:50(09) (J. Blaum)

ECON 2930. Workshop in Applied Economics.
No description available.
Fall ECON2930 S01 17133 Th 4:00-5:30(04) (J. Shapiro)
Spr ECON2930 S01 25741 Th 4:00-5:30(17) (N. Thakral)

ECON 2950. Workshop in Econometrics.
No description available.
Fall ECON2950 S01 17134 T 4:00-5:30(09) (S. Schennach)
Spr ECON2950 S01 25750 T 4:00-5:30(16) (A. Norets)

ECON 2960. Workshop in Macroeconomics and Related Topics.
No description available.
Fall ECON2960 S01 17135 W 4:00-5:30(17) (O. Galor)
Spr ECON2960 S01 25751 W 4:00-5:30(10) (J. Blaum)

ECON 2970. Workshop in Economic Theory.
No description available.
Fall ECON2970 S01 17136 M 4:00-5:30(05) (B. Pakzad-Hurson)
Spr ECON2970 S01 25752 M 4:00-5:30(13) (R. Serrano)

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 residency requirement and are
continuing research on a full time basis.
Fall ECON2990 S01 15278 Arranged "To Be Arranged"
Spr ECON2990 S01 24172 Arranged "To Be Arranged"

Economics

EDUC 0620. Cradle of Inequality: The Role of Families, Schools, and
Neighborhoods.
In this Sophomore Seminar, we will examine contours of inequality that
begin in early childhood and accumulate over time, with particular focus
on issues of race, class, and gender. Moreover, we will examine how
these factors matter in early childhood and the role of families, schools,
and neighborhoods in shaping, ameliorating, and propagating larger
inequalities. Through our reading and active discussion, we will develop
answers to questions that motivate much inquiry into inequality: Who gets
what, and why?
Spr EDUC0620 S01 24484 MW 11:00-11:50(04) (D. Rangel)

EDUC 0800. Introduction to Human Development and Education.
Introduces students to the study of human development and education
from infancy through young adulthood. This course provides a broad
overview of scientific and theoretical understanding of how children
develop and how research is generated in the field. Major topics
include biological foundations, cognition, language, emotion, social
skills, and moral understanding based on developmental theories and
empirical research. We will attend to variations in cultural, ethnic, gender,
socioeconomic, and other forms of human diversity in social contexts
(e.g., family and schools) and how the person-context fit may influence
children's developmental trajectories. The course also covers educational
contexts, processes, and outcomes.
Fall EDUC0800 S01 15847 T 1:00-2:20(08) (J. Li)

EDUC 0900. Fieldwork and Seminar in Secondary Education.
Combines study of current educational issues with extensive fieldwork
that allows the student to observe how these issues translate themselves
into reality on a daily basis. Each student reads and discusses recent
writing about educational history, theory, and practice, and observes a
class in a local school for 32 hours. The final paper synthesizes reading
and observations.
Fall EDUC0900 S01 15851 Th 4:00-6:30(04) (D. Silva Pimentel)

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 24512 TTh 2:30-3:50(11) (S. Loeb)

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 16100 TTh 9:00-10:20(02) (L. Jones)

EDUC 1040. Sociology of Education.
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 24483 MWF 9:00-9:50(02) (D. Rangel)

EDUC 1070A. Student Teaching: English.
S/N/C.
Spr EDUC1070A S01 25601 Arranged (L. Snyder)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
EDUC 1070B. Student Teaching: History and Social Studies.
S/NC
Spr EDUC1070ES01 25602 Arranged (C. Villarreal)

EDUC 1070C. Student Teaching: Science.
S/NC
Spr EDUC1070CS01 25604 Arranged (D. Silva Pimentel)

EDUC 1080A. Analysis of Teaching: English.
S/NC
Fall EDUC1080AS01 16992 W 4:30-7:00(17) (L. Snyder)
Spr EDUC1080AS01 25605 W 4:30-7:00(10) (L. Snyder)

EDUC 1080B. Analysis of Teaching: History and Social Studies.
S/NC
Fall EDUC1080ES01 16994 W 4:30-7:00(17) (T. Chen)
Spr EDUC1080BS01 25606 W 4:30-7:00(10) (C. Villarreal)

EDUC 1080C. Analysis of Teaching: Science.
S/NC.
Fall EDUC1080CS01 16996 W 4:30-7:00(17) (D. Silva Pimentel)
Spr EDUC1080CS01 25607 W 4:30-7:00(10) (D. Silva Pimentel)

EDUC 1090. Adolescent 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 15981 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.
Spr EDUC1100 S01 24634 T 4:00-6:30(16) (H. Levey Friedman)

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.
Fall EDUC1110 S01 15862 TTh 10:30-11:50(18) (P. Degalbert)
Fall EDUC1110 S02 15863 Arranged(18) (M. Kraft)
Fall EDUC1110 S03 15864 Arranged(18) (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 24636 Thh 9:30-10:20(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.
Fall EDUC1150 S01 17884 F 3:00-5:30(11) (P. Degalbert)
Spr EDUC1150 S01 24430 F 3:00-5:30(15) (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.
Fall EDUC1270 S01 17880 Th 2:30-4:30(03) (C. Buttimer)

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 16102 T 4:00-6:30(09) (Y. Yamamoto)

EDUC 1520. Ethnic Studies & Education.
This course examines and bridges the origins, epistemologies, key concepts, and central questions of the academic field of Ethnic Studies with key questions and issues in the field of education. The course begins with an examination of key events in early U.S. History and the historical and contemporary struggle for Ethnic Studies through a comparative, multiracial lens, followed by analyses of contemporary issues faced by practitioners working in 21st century educational contexts.
Fall EDUC1520 S01 17233 Th 4:00-6:30(04) (To Be Arranged)

EDUC 1540. Creating Schools.
In this course we will design a school and the school system in which it lives to meet educational goals for students. To inform this process, we will discuss current standards for school and alternative goals, as well as current school structures such as courses, assessments, and teaching requirements, and potential alternative practices. We will directly consider heterogeneity and inequality and how to build a system that is responsive to multiple dimensions of diversity.
Fall EDUC1540 S01 17781 M 3:00-5:30(05) (S. Loeb)

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 24480 MWF 10:00-10:50(03) (J. Li)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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.
Spr EDUC1650 S01 24493 W 3:00-5:30(10) (L. Snyder)

EDUC 1760A. Beauty Pageants as an American Institution.
Beauty pageants are often ridiculed, and even vilified, in American society. Yet their lasting power—from "There She Is" to Toddlers & Tiaras to pageant waves—is undeniable. What accounts for their enduring power? This course draws on inter-disciplinary scholarship to examine how and why pageantry and American femininity have become linked in the public consciousness as they transformed from beauty contests to the largest source of scholarship money available to women in this country. We will examine how pageantry intersects with major institutions—education, politics, and media.
Fall EDUC1760A S01 17303 T 4:00-6:30(09) (H. Levey Friedman)

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.
Spr EDUC1860 S01 24482 M 3:00-5:30(13) (J. Li)

EDUC 1890. Family Engagement in Education.
How do families from diverse backgrounds support their children's schooling? What does research tell us about how families influence their children's development and educational processes? Students in this course will examine theories and research findings related to family engagement in education drawing from various social science studies. The course offers an in-depth look at focal topics across diverse groups, such as parental beliefs and practices, family processes in sociocultural contexts, immigrant families, and elements and programs that promote family-school partnerships. This course involves students' fieldwork and engagement in the community.
Spr EDUC1890 S01 25944 Th 4:00-6:30(17) (Y. Yamamoto)

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

EDUC 1990. Independent Reading and Research.
Supervised reading and/or research for education concentrators who are preparing an honors thesis. Written permission from the honors advisor required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Supervised reading and/or research for education concentrators who are preparing an honors thesis. Written permission from the honors advisor required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

EDUC 2070A. Student Teaching: English.
S/NCR.
Spr EDUC2070A S01 24493 Arranged (L. Snyder)

EDUC 2070B. Student Teaching: History and Social Studies.
S/NCR.
Spr EDUC2070B S01 24498 Arranged (Y. Yamamoto)

EDUC 2070C. Student Teaching: Science.
S/NCR.
Spr EDUC2070C S01 24504 Arranged (J. Collins)

EDUC 2080A. Analysis of Teaching: English.
No credit course.
Fall EDUC2080A S01 15853 W 4:30-7:00(17) (L. Snyder)
Spr EDUC2080A S01 24494 W 4:30-7:00(10) (L. Snyder)

EDUC 2080B. Analysis of Teaching: History and Social Studies.
No credit course.
Fall EDUC2080B S01 15856 W 4:30-7:00(17) (T. Chen)
Spr EDUC2080B S01 24499 W 4:30-7:00(10) (C. Villarreal)

EDUC 2080C. Analysis of Teaching: Science.
No credit course.
Fall EDUC2080C S01 15859 W 4:30-7:00(17) (D. Silva Pimentel)
Spr EDUC2080C S01 24505 W 4:30-7:00(10) (D. Silva Pimentel)

EDUC 2350. Economics of Education II.
Introduces students to the main economic theories and related applied work that inform education policy analysis. In so doing, the course combines economic theory, econometric studies, and education and institutional literature in an examination of current issues in U.S. education, particularly those issues that are most relevant to urban education. The course begins with examinations of key concepts and theories from microeconomics, labor economics, and public economics that are most relevant for studying questions in education. After laying this theoretical foundation the course then examines how these theories can illuminate and aid policy analysis around key topics in U.S. education. Open to graduate students only.
Spr EDUC2350 S01 24506 TTh 10:30-11:50(09) (M. Kraft)

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 scientific approaches, the role of randomized controlled trials in determining causal inferences, and cost-benefit analysis. Prerequisites: EDUC 1110, POLS 1600, SOC 1100, or written permission of the instructor.
Fall EDUC2360 S01 16469 MWF 2:00-2:50(07) (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 supervisor to develop a job description for the internship that allows the student to learn from and contribute to the work of the organization.
Fall EDUC2370 S01 15870 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 supervisor to develop a job description for the internship that allows the student to learn from and contribute to the work of the organization.
Spr EDUC2380 S01 24511 Arranged (K. Wong)

EDUC 2390. Race and Democracy in Urban Education Policy.
This course will provide a broad introduction to contemporary education policy centered on issues of race/ethnicity and ideas of democracy. Students will begin by engaging theories of democracy and theories of race. The course will then transition to analyzing major education policy debates such as: school desegregation, school finance, teacher evaluation, curriculum development standards, accountability, educator policies (collective bargaining, certification), special education, and the current policy landscape. The course will include final group projects where students apply the theoretical concepts to strategies for school reform, with the neighboring school districts as cases.
Fall EDUC2390 S01 17879 Th 6:40-8:00PM(10) (J. Collins)
EDUC 2450. Exchange Scholar Program.

EDUC 2980. Studies in Education.
Independent study; must be arranged in advance. Section numbers vary by instructor. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

EDUC 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall EDUC2990 S01 15279 Arranged "To Be Arranged"
Spr EDUC2990 S01 24173 Arranged "To Be Arranged"

EDUC XLIST. Courses of Interest to Concentrators in Education.

Egyptology and Assyriology

This course explores the cultures of ancient Mesopotamia and the Near East (present-day Iraq, Syria, Turkey, and Iran) from prehistory until the end of the first millennium BC. We will investigate the rich history and archaeology of this region through literary and historical texts (in translation) and archaeological evidence, including visual culture and architecture. Central to our discussion will be questions about how and why scholars study the Middle East in this early period. Topics include: early complex societies, state formation, the origins and development of writing, ancient empires, religion, culture and ethnicity, trade, diplomacy, warfare, agriculture, and craft production.
Fall ASYR0800 S01 15594 TTh 2:30-3:50(03) (S. Thavapalan)

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 17502 MWF 10:00-10:50(14) (M. Rutz)

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 26001 Arranged "To Be Arranged"

ASSYR 1400. Introduction to Sumerian.
Over five thousand years ago the first cities emerged in southern Iraq, and around that same time writing was invented, most likely to record the language we now call Sumerian. Even after it was no longer spoken, Sumerian became a powerful conduit for the region’s cultural heritage, preserving its literature and religious traditions for millennia. In this course students will learn the fundamentals of Sumerian grammar, develop a basic working vocabulary, and explore the cuneiform script through weekly readings in original texts. Selections will come from royal inscriptions, court cases, myths, magical incantations, and even ancient schoolwork. No prerequisites.
Spr ASYR1400 S01 24304 TTh 1:00-2:20(08) (M. Rutz)

ASSYR 1600. Astronomy Before the Telescope.
This course provides an introduction to the history of astronomy from ancient times down to the invention of the telescope, focusing on the development of astronomy in Babylon, Greece, China, the medieval Islamic world, and Europe. The course will cover topics such as the invention of the zodiac, cosmological models, early astronomical instruments, and the development of astronomical theories. We will also explore the reasons people practiced astronomy in the past. No prior knowledge of astronomy is necessary for this course.
Fall ASYR1600 S01 15639 TTh 10:30-11:50(13) (J. Steele)

ASSYR 1725. Scientific Thought in Ancient Iraq.
This course will investigate a variety of ancient scientific disciplines using primary sources from ancient Mesopotamia (modern Iraq). By reading the original texts and studying the secondary literature we will explore the notion of scientific thought in the ancient world and critique our own modern interpretation of what “science” is and how different traditions have practiced scientific methods towards a variety of aims. Looking at a range of disciplines will allow us to compare and contrast the different ways in which scientific thinking is transmitted in the historical record.
Fall ASYR1725 S01 24627 TTh 10:30-11:50(09) (J. Steele)

ASSYR 2310A. Ancient Scientific Texts: Akkadian.
Readings and analysis of a major scientific text in Akkadian. Prerequisite: AWAS 0200 or 0210. Open to graduate students only.
Fall ASYR2310A S01 15640 Arranged (J. Steele)

ASSYR 2420. Akkadian Divinatory Texts.
This course offers focused study of the most significant Akkadian divinatory texts from the second and first millennia BCE. Readings will come for the major genres of Mesopotamian divination found at sites throughout the ancient Near East. Emphasis will be placed on matters of textual transmission, reconstruction, and interpretation. We will read texts in the cuneiform script (copies, photographs, and, when possible, actual tablets) and work to place the material in meaningful historical, social, and cultural contexts. Knowledge of Akkadian cuneiform required.
Spr ASYR2420 S01 25885 M 3:00-5:30(13) (M. Rutz)

ASSYR 2430. Akkadian Historical Texts.
This course offers focused study of the most significant Akkadian historical and chronographic texts from the second and first millennia BCE. Readings in cuneiform will come for the major genres of Mesopotamian history-writing found at sites throughout the ancient Near East, including commemorative inscriptions, annals, chronicles, literary historical texts, and historical miscellanea. We will contend with the disjunctions between ancient and modern modes of historical thinking and work to contextualize the ancient texts. Knowledge of Akkadian cuneiform required. Reading knowledge of German and French will be useful but is not required. Intended primarily for graduate students.
Spr ASYR2430 S01 15568 M 3:00-5:30(05) (M. Rutz)

ASSYR 2700. Special Topics in Ancient Sciences.
This course will be a topics course containing a detailed technical and cultural study of an area of science in a culture of the ancient world. Although intended for graduate students, undergraduate students who have taken EGYT 1600 or AWAS 1600 or a similar course may be admitted at the instructor’s discretion.
Spr ASYR2700 S01 24306 Arranged (J. Steele)

ASSYR 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.

ASSYR 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall ASYR2990 S01 15256 Arranged "To Be Arranged"
Spr ASYR2990 S01 24157 Arranged "To Be Arranged"

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

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

EGYT 0500. The Pyramids in Context: Archaeology of Life and Religion of Death in Old Kingdom Egypt. 4 credits.

No ancient world monument is more iconic than the Egyptian pyramids of Giza. This course sets out to be a comprehensive analysis of the Old Kingdom (2575-2150 BCE) pyramids and the material, historical and symbolic context that produced them. How and why were the pyramids built? What was inside them? How was everyday life in the pyramid towns? What kind of rituals were performed in their multiple chambers? This course wants to show the real face of the pyramids and the people who worked on and lived by them.

Spr EGYT0500 S01 26168 MWF 10:00-10:50(03) (M. Almansa Villatoro)

EGYT 1310. Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian I). 4 credits.

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 17533 TTh 9:00-10:20(02) (M. Almansa Villatoro)

EGYT 1330. Selections from Middle Egyptian Hieroglyphic Texts. 4 credits.

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 15641 TTh 9:00-10:20(02) (A. Motte)

EGYT 1430. History of Egypt I. 4 credits.

A survey of the history and society of ancient Egypt from prehistoric times to the end of the Eighteenth Dynasty (ca. 5000-1300 BC). Readings include translations from the original documents that serve as primary sources for the reconstruction of ancient Egyptian history.

Fall EGYT1430 S01 15642 MWF 11:00-11:50(16) (L. Bestock)

EGYT 1440. History of Egypt II. 4 credits.

A survey of the history and society of ancient Egypt from the Ramesside Period to the Roman conquest (ca. 1300-30 BC). Readings include translations from the original documents that serve as primary sources for the reconstruction of ancient Egyptian history.

Spr EGYT1440 S01 24307 Arranged (L. Depuydt)

EGYT 1465. Life on the Nile: Ancient Egypt beyond the Pharaohs. 4 credits.

The history of ancient Egypt is marked by the names of its great pharaohs and monumental buildings. But what about ordinary people who made up the majority of this fascinating culture, yet are not well represented in historical narratives? This course will explore what we know about the daily life of non-royal Egyptians by looking at the primary texts (in translation), art, and material culture of ancient Egypt. We will look at various categories of population, such as children, craftsmen, women, soldiers; and discuss such issues and topics as households, growing up, family, education, love, clothing, medicine, magic, and leisure.

Spr EGYT1465 S01 26169 TTh 9:00-10:20(01) (S. Stubnova)

EGYT 1495. The Science and the Medicine of the Ancient Egyptians. 4 credits.

This course presents a survey of the science and medicine of the ancient Egyptians in light of the primary sources. Only fields of learning represented in some systematic way in the primary sources are deemed worthy of study, mainly four: mathematics, medicine, astronomy, and time-reckoning. Zoology, botany, chemistry, architecture, etc., are not discussed. The Egyptians probably had some notion of the kinds of knowledge on which these subjects focus. But no systematic treatment of any survives in the extant sources and none probably ever existed. There are no prerequisites for this class.

Fall EGYT1495 S01 16788 MWF 10:00-10:50(14) (L. Depuydt)

EGYT 1910. Senior Seminar. 4 credits.

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. 4 credits.

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

EGYT 2210. Introduction to Coptic. 4 credits.

Coptic, the last stage of the ancient Egyptian language, was written with essentially Greek alphabetic characters. An introduction to Sahidic, which is perhaps the best represented of the Coptic dialects. Sahidic grammar is explained, and some texts, mainly of a biblical and patristic nature, are read. Open to undergraduates with the consent of the instructor. No prerequisites, but a knowledge of Middle Egyptian or Greek would be helpful.

Spr EGYT2210 S01 24629 Arranged (L. Depuydt)

EGYT 2410. Late Egyptian. 4 credits.

Introduction to the grammar of the third historical phase of ancient Egyptian and readings from its various genres, including literary texts, letters, historical inscriptions, and tomb-robbing papyri. Students will be expected to translate and discuss assigned texts. Prerequisites: EGYT 1310, 1320.

Fall EGYT2410 S01 17504 MWF 12:00-12:50(15) (L. Depuydt)

EGYT 2970. Preliminary Examination Preparation. 4 credits.

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 15280 Arranged 'To Be Arranged'

Spr EGYT2970 S01 24174 Arranged 'To Be Arranged'

EGYT 2980. Reading and Research. 4 credits.

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. 4 credits.

For graduate students who have met the residency requirement and are continuing research on a full time basis.

Fall EGYT2990 S01 15281 Arranged 'To Be Arranged'

Spr EGYT2990 S01 24175 Arranged 'To Be Arranged'

EGYT XLIST. Courses of Interest to Concentrators in Egyptology and Assyriology. 4 credits.

Engineering

ENGN 0020. Transforming Society-Technology and Choices for the Future. 4 credits.

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 24803 MWF 11:00-11:50(04) (J. Harry)

ENGN 0030. Introduction to Engineering. 4 credits.

ENGN 0030 introduces students to the engineering profession and the important role engineers play in society. The course content begins with engineering design, followed by the analysis of static structures. Topics also include Computer Aided Design, basic Matlab programming, professional ethics, and social responsibility. Students complete group training modules and design projects in the Brown Design Workshop, led by an undergraduate mentor. ENGN 0030 provides the foundation for further study in engineering. It should be taken by students considering concentrating in engineering, interested in the entrepreneurship curriculum, and curious about engineering and design. Students should be enrolled in MATH 0100 or higher.

Fall ENGN0030 M01 15368 WF 1:00-1:50 (K. Haberstroh)

Fall ENGN0030 M01 15368 MWF 1:00-1:50 (K. Haberstroh)

Fall ENGN0030 S01 15363 T 9:00-10:20(05) (D. Pacifici)

Fall ENGN0030 S02 15364 T 10:30-11:50(05) (D. Pacifici)

Fall ENGN0030 S03 15365 T 2:30-3:50(05) (D. Pacifici)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ENGN 0031. Honors Introduction to Engineering.
ENGN0031 introduces students to the engineering profession and the important role engineers play in society. The course content begins with engineering design, followed by the analysis of static structures. Topics also include CAD and extensive Matlab programming, professional ethics, and social responsibility. Students complete group training modules and design projects in the Brown Design Workshop. ENGN0031 provides the foundation for further study in engineering. Students pursuing Mechanical, Electrical or Materials Engineering who complete the Honors course may substitute an approved Engineering or Computer Science course in place of CSCI 0400. Students should be enrolled in MATH 0170 or higher.

Fall ENGN0031 M01 15382 MWF 1:00-1:50 (K. Kim)
Fall ENGN0031 M01 15382 WF 1:00-1:50 (K. Kim)
Fall ENGN0031 S01 15381 T 1:00-2:20(05) (K. Kim)
Fall ENGN0031 S02 15383 Th 1:00-2:20(05) (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 24808 TTh 9:00-10:20(11) (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 15390 TTh 1:00-2:20(18) (T. Chaltas)
Fall ENGN0090 S02 15391 TTh 2:30-3:50(18) (T. Chaltas)

ENGN 0120A. Crossing the Consumer Chasm by Design.
Technologies have shaped human life since tools were sticks and flints and a perspective of earth which continues to inform and influence our relationship with our environment. 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 relationship with our environment.

We will examine the assertion that most of the changes that have improved people’s lives are essentially technological and then we will look at the difficulties in creating sustainable and beneficial change. Topics of interest include unintended consequences, failure to consider local culture, and engineering ethics. Many, but not all, of the examples will have a third world context. The engineering focus will be on infrastructure–housing, water and sanitation, transportation, and also mobile devices as used in health care and banking.
Fall ENGN0120A S01 15392 MWF 11:00-11:50(16) (B. Hazeltine)

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 15393 T 10:30-11:50(11) (C. Bull)
Fall ENGN0260 S02 15394 T 1:00-2:20(11) (C. Bull)
Fall ENGN0260 S03 15395 Th 10:30-11:50(11) (C. Bull)
Fall ENGN0260 S04 15396 Th 1:00-2:20(11) (C. Bull)
Spr ENGN0260 S01 24816 T 10:30-11:50(13) (C. Bull)
Spr ENGN0260 S02 24817 T 1:00-2:20(13) (C. Bull)
Spr ENGN0260 S03 24818 Th 10:30-11:50(13) (C. Bull)
Spr ENGN0260 S04 24819 Th 1:00-2:20(13) (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 15387 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 15397 TTh 9:00-10:20(05) (S. Kumar)
Fall ENGN0410 S01 15397 M 3:00-4:50(05) (S. Kumar)

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 15400 Th 1:00-2:20(08) (K. Pennell)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Computers are so ubiquitous in modern technology that it is important to build a solid understanding of how computing machines are designed. We will work where software and hardware intersect, and introduce digital logic design, finite state machines, stored-program CPUs, digital data types, assembly language programming, compiler concepts and the C language. We will design digital logic and program modern RISC microprocessors similar to those in cell phones. We encourage all freshmen and sophomores interested in computing, and we welcome students from all Brown concentrations. It is assumed that students have some prior exposure to basic computer programming concepts.
Spr ENGN0500 S01 26081 MWF 2:00-2:50(07) (J. Rosenstein)

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 0400 or PHYS 0160 (previously 0080); MATH 0180 or 0200; and APMA 0330 or 0350 (may be taken concurrently).
Fall ENGN0510 S01 15401 MWF 10:00-10:50(14) (D. Mittelman)

ENGN 0520. Electrical Circuits and Signals.
An introduction to electrical circuits and signals. Emphasizes the analysis and design of systems described by ordinary 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 24820 MWF 10:00-10:50(03) (L. Lanson)

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 or equivalent; ENGN 0410 or CHEM 0330. An understanding of intermediate calculus is recommended, such as MATH 0180 or MATH 0200.
Spr ENGN0720 S01 24825 TTh 10:30-11:50(09) (G. Palmore)

Properties of fluids, fluid motion analysis. Fluid statics, forces on submerged surfaces, kinematics, Conservation equations. Frictionless incompressible flows, Euler's equations, Bernouill's equation: thrust, lift, drag, Vorticity and circulation. Navier-Stokes equations, applications. Laminar and turbulent boundary layers, flow separation. Steady one-dimensional compressible flow. Sound, velocity, flow with area change, normal shocks. Lectures, laboratory. Prerequisites: MATH 0180 or 0200, ENGN 0040 or PHYS 0050 or PHYS 0070; APMA 0330 or APMA 0350 (can be concurrent).
Fall ENGN0810 S01 15406 MWF 1:00-1:50(06) (T. Powers)

This course introduces the study of the design, engineering, work, material culture and history through the construction of a traditional boat, a Maine Peapod. As the class builds the boat, we'll gain hands-on understanding of issues of engineering, design, skill, and workmanship. We will do historical research and visit museums to gain insight into the history of small craft and their builders/users from the nineteenth century to the present. Throughout the course, we will consider philosophical issues of tradition, creativity, and knowledge in engineering and making. Three longer writing assignments and an ongoing journal will connect hands-on work and research.
Fall ENGN0860 S01 17936 Arranged (C. Bull)

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 24828 TTh 1:00-2:20(12) (T. Chalas)

ENGN 0930A. Appropriate Technology.
Our goal for this course is that you leave it with the ability to think and act rationally and concretely on issues of technology and the human condition. We will provide background on useful technologies (e.g. wind, solar, hydro), techniques to fabricate them, and an opportunity to explore the obstacles to their implementation.
Spr ENGN0930A S01 25943 MWF 1:00-1:50(06) (B. Hazeltine)

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, fabrication, 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 24830 MW 9:00-12:00(02) (I. Gonsher)

ENGN 0930L. Biomedical Engineering Design and Innovation.
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 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 throughout the semester. Engineering concentrators should register for ENGN1930L.
Fall ENGN0930L S01 15410 MW 8:30-9:50(01) (C. Kofron)

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 be addressed.
Spr ENGN0931 S01 24831 TTh 6:40-8:00PM(18) 'To Be Arranged'

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. 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. Engineering concentrators should register for ENGN1931L.
Spr ENGN0931L S01 24833 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. Instructor permission required.
Fall ENGN1000 S01 15411 M 3:00-5:30(05) (J. Fontaine)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ENGN 1001. Projects in Engineering Design II.
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. Instructor permission required.

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 entrepreneurship 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.

ENGN 1020. Neuroengineering.
Course Goals: To develop an advanced understanding of how signals are generated and propagated in neurons and neuronal circuits, and how this knowledge can be harnessed to design devices to assist people with neurologic disease or injury. Fundamental topics in neuronal and neural signal generation, recording methods, and stimulation methods. Clinical/Translational topics include multiple clinically available and emerging neurotechnologies. Prerequisites: NEUR 0010 and ENGN 0510; or instructor permission, which may be provided after discussion with course faculty.

ENGN 1210. Biomechanics.

ENGN 1220. Water Supply and Treatment Systems - Technology and Sustainability.
This course provides a comprehensive overview of engineering approaches to how to protect water quality. Class begins with brief introduction to hydrological cycle. More in detail groundwater flows (Darcy eq.-n) and flows into wells are examined. Principles of hydraulics are presented. Open channel and river flows, flood routing and preventing are presented. Freshwater and wastewater treatment technologies, together with advanced water treatment processes evaluated. Course ends with the visit to a local wastewater treatment plant. Prerequisites: CHEM 0100 or CHEM 0330 and MATH 0170 or MATH 0190 or MATH 0350 or MATH 0180 or MATH 0200. Course is not available for Freshmen.

ENGN 1230. Instrumentation Design.
Sensors for pressure, temperature, flow, mass, and flow. Amplifiers, filters, and AD/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.

ENGN 1340. Water Supply and Treatment Systems - Technology and Sustainability.
This course provides a comprehensive overview of engineering approaches to how to protect water quality. Class begins with brief introduction to hydrological cycle. More in detail groundwater flows (Darcy eq.-n) and flows into wells are examined. Principles of hydraulics are presented. Open channel and river flows, flood routing and preventing are presented. Freshwater and wastewater treatment technologies, together with advanced water treatment processes evaluated. Course ends with the visit to a local wastewater treatment plant. Prerequisites: CHEM 0100 or CHEM 0330 and MATH 0170 or MATH 0190 or MATH 0350 or MATH 0180 or MATH 0200. Course is not available for Freshmen.

ENGN 1210. Biomechanics.

ENGN 1220. Neuroengineering.
Course Goals: To develop an advanced understanding of how signals are generated and propagated in neurons and neuronal circuits, and how this knowledge can be harnessed to design devices to assist people with neurologic disease or injury. Fundamental topics in neuronal and neural signal generation, recording methods, and stimulation methods. Clinical/Translational topics include multiple clinically available and emerging neurotechnologies. Prerequisites: NEUR 0010 and ENGN 0510; or instructor permission, which may be provided after discussion with course faculty.

ENGN 1220. Neuroengineering.
Course Goals: To develop an advanced understanding of how signals are generated and propagated in neurons and neuronal circuits, and how this knowledge can be harnessed to design devices to assist people with neurologic disease or injury. Fundamental topics in neuronal and neural signal generation, recording methods, and stimulation methods. Clinical/Translational topics include multiple clinically available and emerging neurotechnologies. Prerequisites: NEUR 0010 and ENGN 0510; or instructor permission, which may be provided after discussion with course faculty.

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.

This course introduces the basic principles and formulations that describe kinetic processes in materials science and engineering. These are divided into the following principle types of mechanisms: solid state diffusion, reactions at surfaces and interfaces, and phase transformations. The final section of the course applies these principles to several relevant materials processing systems. Prerequisites: ENGN 0410, 0720, 1410 or equivalent.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
A study of the structure and properties of nonmetallic materials such as glasses, ceramics, and polymers. The crystal structure of ceramics, and the noncrystalline networks and chains of glasses and polymers, and the generation of microstructures and composites are considered. The physical and mechanical properties of glasses, ceramics, polymers, and composites, and their dependence on structure, are developed.  
Prerequisite: ENGN 0410  
Spr ENGN1470 S01 26223 TTh 2:30-3:50(11)  
(N. Padture)

This course is an introduction to soft materials, focusing on natural and synthetic polymers and composites. Students will learn fundamentals of polymer chemistry (synthetic approaches) and polymer physics (thermodynamics, diffusion, viscosity); methods for characterizing/analyzing the structure of polymers in solution and solid state, including laboratory exercises; and approaches to designing polymers with properties for different applications (actuation, 3D printing, robotics, drug delivery). Course focuses on design of soft materials for specific applications and includes reading and discussion of primary literature. The course will be taught at a level suitable for undergraduates in engineering and graduate students in engineering and related fields.  
Fall ENGN1475 S01 17483 W 6:00-8:30PM(12)  
(G. Palmore)

ENGN 1480. Metallic Materials.  
The central theme is to familiarize students with typical microstructures in metals and alloys, their origin, and factors that control stability. The role of processing (primary and secondary) in influencing microstructures will be demonstrated. The ability to change microstructure through composition and processing to obtain a "desired" microstructure that provides specific properties will be highlighted with examples in different alloy systems including Al, steels, and Ni-based. Factors that control stability and shape of second phase particles will be discussed for L/S and S/S processing. The consequences of microstructural changes on physical and mechanical properties will be illustrated. Prerequisite: ENGN 0410, ENGN 1410.  
Spr ENGN1480 S01 25623 TTh 10:30-11:50(09)  
(S. Kumar)

ENGN 1490. Biomaterials.  
Biomaterials science, the study of the application of materials to problems in biology and medicine, is characterized by medical needs, basic research, and advanced technological development. Topics covered in this course include materials used in bone and joint replacement, the cardiovascular system, artificial organs, skin and nerve regeneration, implantable electrodes and electronic devices, drug delivery, and ophthalmology.  
Fall ENGN1490 S01 15441 MWF 2:00-2:50(07)  
(K. Coulombe)

ENGN 1510. Nanoengineering and Nanomedicine.  
Students in this course will develop a fundamental understanding of nanotechnology 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 nanotechnology 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 nanotechnology research tools available on campus. This course is for engineering and science graduate students and advanced upper-level engineering undergraduates.  
Fall ENGN1510 S01 15442 TTh 1:00-2:20(08)  
(A. Shukla)

ENGN 1520. Cardiovascular Engineering.  
In this course, students will learn quantitative physiological function of the heart and vascular system, including cardiac biomechanics and vascular flow dynamics, through lectures and discussion of current scientific literature. A systems approach will integrate molecular biophysics, cell biology, tissue architecture, and organ-level function into a quantitative understanding of health and disease. Discussion topics will include cardiovascular devices, pre-clinical regenerative therapies, stem cell ethics, and clinical trials.  
Spr ENGN1520 S01 24881 TTh 9:00-10:20(01)  
(To Be Arranged)

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.  
Spr ENGN1560 S01 24882 MWF 12:00-12:50(05)  
(D. Mittleman)

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 15443 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 0520 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 24883 MWF 1:00-1:50(06)  
(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 15444 MWF 10:00-10:50(14)  
(A. Zaslavsky)

ENGN 1610. Image Understanding.  
Image processing is a technology experiencing explosive growth; it is central to medical image analysis and transmission, industrial inspection, image enhancement, indexing into pictorial and video databases, e.g., WWW, and to robotic vision, face recognition, and image compression. This senior-level undergraduate course covers theoretical underpinnings of this field and includes a series of practical MATLAB image processing projects. ENGN 1570 is recommended but not required.  
Spr ENGN1610 S01 25918 TTh 10:30-11:50(09)  
(P. Felzenszwalb)

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 24884 MWF 2:00-2:50(07)  
(W. Patterson)

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 15447 MW 3:00-4:30(17)  
(R. Bahar)
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 24885 MWF 12:00-12:50(05)  (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 15448 TTh 10:30-11:50(13)  (W. Patterson)

ENGN 1680. Design and Fabrication of Semiconductor Devices. Contemporary practice in the design and fabrication of semiconductor devices. The realization of basic electronic devices and their semiconductor platform is a central theme in a coordinated lecture and laboratory course. Topics include microparticphotolithography; 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 24886 MWF 10:00-10:50(03) 'To Be Arranged'

ENGN 1690. Photonics Devices and Sensors. Science and engineering principles of photonics and optoelectronic devices that provide foundation to a broad range of technologies from lasers to detectors, from cameras to computer displays, from solar cells to molecular sensing, from internet to quantum cryptography, and to new lighting sources for illuminations in the city and in biomedical treatments. Topical content: Light as waves in media, on surfaces, and through micro and nanostructures; interference and waveguiding; light generation by spontaneous emission, stimulated emissions, photodetection, infrared and night visions; LED, lasers, optical amplifiers and modulators, etc. Prerequisite: ENGN 0510 or equivalent.  Fall ENGN1690 S01 15449 TTh 10:30-11:50(13)  (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 24888 MW 4:30-6:00(10) 'To Be Arranged'

ENGN 1735. Vibration of Mechanical Systems. This course will focus on the vibration characteristics of mechanical systems. Topics will include: analysis of free and forced single degree-of-freedom linear oscillators, vibration control and isolation, multiple degree-of-freedom and continuous systems, and introduction to nonlinear oscillations. Relevant analytical and numerical methods useful for modeling and analysis of vibrating systems will be discussed throughout. Students will be expected to do some numerical calculations on a computer.  Fall ENGN1735 S01 17890 TTh 9:00-10:20(02)  (D. Harris)

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 24889 Th 7:30-8:50PM(18) 'To Be Arranged'


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 24890 MWF 1:00-1:50(06)  (R. Fleeter)

ENGN 1860. Advanced Fluid Mechanics. Aims to give mechanical engineering students a deeper and more thorough grounding in principles and basic applications. Topics include review of the conservation principles; inviscid flow; viscous flow, including aerodynamics lubrication theory; laminar boundary layers; wave motions and wave drag. Lectures, assignments, computational projects, and laboratory. Prerequisites: ENGN 0720 and 0810.  Spr ENGN1860 S01 24891 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 wave optics for biomedical imaging. The principles include refraction, reflection, scattering, diffraction and interference. The applications include Michelson interferometry and optical coherence tomography (OCT). OCT is the emerging technology for 3D imaging, considered by the American Institute for Medical and Biological Engineering (AIBME) as the latest innovation milestone in the history of biomedical engineering. Throughout the course, we will also learn various numerical analysis techniques with working examples in MATLAB. Prerequisites: Undergraduate level ENGN 0510 Minimum Grade of S  Spr ENGN1930ES01 24892 MW 12:00-12:50(05)  (J. Lee)
ENGN 1930L. **Biomedical Engineering Design and Innovation.**
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 engineering design 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 ENGN1930LSO1 15452 MIW 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 ENGN1930SO1 15453 Arranged (C. Bull)

ENGN 1930U. **Renewable Energy Technologies.**
Renewable Energy Technology examines energy conversion, transport, and storage with the goal of devising courses of action that transform the current state of energy use into one that relies more fully on renewable resources and efficient processes. The course will give priority to photovoltaics, wind, and hydro conversion technologies and to the electrical grid for energy transport. From year-to-year other topics will be explored based on the wishes of the participants. Research, discussion, projects, and presentations will be the primary learning methods. The engineering core and thermodynamics are suggested preparation for this course.

Spr ENGN1930USO1 24893 TTh 2:30-3:50(11) (C. Bull)

ENGN 1931A. **Photovoltaics Engineering.**
This seminar course will provide an overview of the operation, design, characterization, and manufacturing of photovoltaic solar cells and panels. The course will span a range from the fundamental physics of solar cell operation to highly applied, industrially relevant engineering topics. Recommended prerequisites: Good knowledge of basic physics and electromagnetism concepts; proficiency in ENGN 0510 or PHYS 0470;

This course is designed for undergraduate and graduate students in Physics, Chemistry and Engineering interested in the field of alternative energy with a focus in photovoltaics. Enrollment limited to 20.

Spr ENGN1931ASO1 24894 W 3:00-5:30(10) "To Be Arranged"

ENGN 1931D. **Design of Mechanical Assemblies.**
An introduction to the design and development of mechanical assemblies suitable for production over a range of volumes, from prototypes to high volume manufacture. The course is intended to present an overview of basic machine components and manufacturing processes from the perspective of a design engineer in a contemporary industrial setting. The objective of which being to provide students the background necessary to create mechanical assemblies from blank-page concepts through to production ready designs. Coursework will include both theoretical and experimental exercises as well as two group projects working on a mechanical assembly produced via high volume manufacture. Prerequisite: ENGN 0310, 1740. Enrollment limited to 20.

Fall ENGN1931DSO1 15455 M 7:00-9:40PM(12) (D. Bamford)

Spr ENGN1931DSO1 24895 TTh 7:00-9:30PM(18) "To Be Arranged"

ENGN 1931I. **Design of Robotic Systems.**
Designing kinetic systems (i.e., systems requiring movement or motion) relies on both mechanical and electrical engineering. These systems include everything from mobile robots for rescue operation to electrically powered moving sculptures. Through a series of projects, students combine knowledge of electronic circuit design, sensors, actuators, motors, microcontrollers, control theory, and programming to build interactive art and robotic systems. Projects culminate in the design of a creative kinetic system that incorporates several of the principles learned in class. Some programming experience is helpful but not required.

Prerequisites: ENGN 0040 and (ENGN 0520 or ENGN 1230 or ENGN 1630 or some hardware experience). Otherwise, seek instructor approval.

Spr ENGN1931ISO1 24897 TTh 10:30-11:50(09) "To Be Arranged"

ENGN 1931J. **Social Impact of Emerging Technologies – The Role of Scientists and 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 current disruptions. Emphasis on the importance of ethical and social responsibilities that technologists must shoulder in answering societal challenges and contributing to public 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 ENGN1931JSO1 15456 Th 4:00-6:30(04) (A. Nurmikko)

ENGN 1933L. **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.

Spr ENGN1933LSO1 24898 M 3:00-5:30(13) (C. Kofron)

ENGN 1931F. **Fuels, Energy and the Environment.**
This course explores all energy resources, but focuses mostly on current “useful” energy sources and their potential future replacements (e.g., coal, petroleum, natural gas, shale gas). Environmental aspects of fuel processing are considered (mining, drilling, fracking). Current conversion technologies for delivering heat and power and the limits of power conversion are discussed. Conversion devices (e.g., engines, turbines, boilers, gasifiers) and their environmental footprints are considered. No carbon footprint power technologies are presented. Calculations of “carbon footprint” are illustrated. Examples of emissions control technologies including carbon capture and sequestration are offered. New technologies for energy conversion are discussed.

Fall ENGN1931FSO1 17056 TTh 10:30-11:50(13) (I. Kulaots)

ENGN 1931Q. **Entrepreneurial Management in Adversity.**
Companies get into trouble all the time -- making wrong products for the market, failing to meet sales quotas. This course examines actions a company must take in adverse conditions. There is never enough time to hire consultants, do research, hire new employees. Top Management must make decisions, often with insufficient data and alternative “sub-optimal” options. Primary objectives are to understand analysis and rapid action when faced with adversity; identify the cause of adversity, building solutions to prevent recurrence or give management the skills to solve problems; and develop recommendations and action plans to ‘sell’ to the Board of Directors.

Spr ENGN1931QSO1 24899 TTh 9:00-10:20(01) "To Be Arranged"

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ENGN 1931R. The Chemistry of Environmental Pollution. This course examines fundamental chemical aspects of pollutants and methods used to address pollution. We will consider pollution in air, water and soil media, and how pollution arises. Basic aspects of pollutant chemical partitioning will be explored. Examples of site investigation and the chemical tools used for that purpose will be discussed, along with risk assessment. Different ways of cleaning up contaminated sites will be examined, along with considering how mitigation and natural processes might represent options for addressing the particular pollution situation. Prerequisites are (MATH 0100, 0170, 0180, 0200, 0350 or 0190) and (CHEM 0100 or 0330). Fall ENGN1931FS01 17848 MWF 10:00-10:50(14) (E. Suuberg)

ENGN 1931S. Medical Physics. Medical Physics is an applied branch of physics concerned with the application of concepts and methods to the diagnosis and treatment of human disease. It applies with medical electronics, bioengineering, health physics. Students will familiarize with major texts and literature of medical physics and are exposed to imaging and treatment techniques and quality control procedures. Students will acquire physical and scientific background to pose questions and solve problems in medical physics. Topics include: Imaging - imaging metrics, ionizing radiation, radiation safety, radioactivity, computed tomography, nuclear medicine, ultrasound, magnetic resonance imaging, and Radiation Therapy - delivery systems, treatment planning, brachytherapy, Image guidance. Spr ENGN1931S001 26150 Th 4:00-6:30(17) (E. Klein)

ENGN 1931W. Selling & Sales Leadership in the Entrepreneurial Environment. Is there any skill more important to entrepreneurs than sales? Startups only have two problems: sales and all else. The entrepreneur starts with a product or service and must convince an embryonic team to join a firm before there is a product, financing or customers; and convince investors the idea is sound, doable, and profitable; and convince customers to rely on a company with no track record. Sales skills are essential. Entrepreneurs sell an intangible and must make it feel intensely tangible. Until company/product become tangible, sales responsibility never stops. Entrepreneurs are key sales figures and face of the company. Spr ENGN1931WS01 24901 TTh 1:00-2:20(08) ‘To Be Arranged’

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. Spr ENGN1931YS01 24902 MTh 6:40-8:00PM(18) (A. Zaki)

ENGN 1931Z. Interfaces, Information and Automation. Laboratory-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., GPIO, 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. Spr ENGN1931ZS01 24903 MWF 11:00-11:50(04) ‘To Be Arranged’

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. Fall ENGN1932ES01 17428 Th 4:00-6:30(04) (C. Briant)

ENGN 1970. Independent Studies in Engineering. Independent Study in Engineering. Instructor permission required after submitting online proposal (https://docs.google.com/a/brown.edu/forms/d/e/1FAlpQL5xZxg19sKcq7xrL9ca5jrz4Md_NqFy670hnSibYaYY77ThMqA/viewform). Section numbers vary depending on concentration. Please check Banner for the correct section number and CRN to use when registering for this course. Fall ENGN1970S01 15514 MW 7:00-8:20PM(12) (A. Zaki)

ENGN 2125. Engineering Management + Decision Making. 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. Fall ENGN2125 S01 15515 Th 3:00-5:50(03) (P. McHugh)

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. Fall ENGN2110 S01 15515 Th 3:00-5:50(03) (P. McHugh)

ENGN 2125. Engineering Management + Decision Making. 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. Spr ENGN2125 S01 26241 M 3:00-5:50(13) (J. Harry)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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. MATLAB exercises are a significant part of the course.
Fall ENGN2520 S02 17370 TTh 1:00-2:20(08) (P. Felzenszwalb)

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 ENGN2530 S01 15521 MWF 11:00-11:50(16) (H. Silverman)

This course is intended to provide an introduction to optical microscopy for engineering and science students. Topics ranging from basic brightfield and fluorescence microscopy to Nobel-prize winning advanced optical microscopy methods will be discussed. The course will also provide students with the opportunity to acquire hands-on training on various microscopy platforms including the confocal laser scanning microscope and the multiphoton microscope, as well as basic sample preparation.
Fall ENGN2625 S01 17931 MWF 10:00-11:20 (K. Toussaint)

ENGN 2660. Physics and Technology of Semiconductor Heterostructures.
Covers, largely from an experimental point of view, topics of current interest in semiconductor heterostructure physics and technology; magentotransport in two-dimensional electron gas; integer and fractional quantum Hall effects; resonant tunneling and superlattice transport; optical and transport properties of quantum wires and dots; heterostructure-based devices; other topics of student interest. Prerequisites: PHYS 1410 or equivalent quantum mechanics and ENGN 1590 or introductory device course helpful but not required.
Spr ENGN2660 S01 25611 TTh 1:00-2:20(08) (A. Zaslavsky)

ENGN 2735. Vibration of Mechanical Systems.
This course will focus on the vibration characteristics of mechanical systems. Topics will include: analysis of free and forced single degree-of-freedom linear oscillators, vibration control and isolation, multiple degree-of-freedom and continuous systems, and introduction to nonlinear oscillations. Relevant analytical and numerical methods useful for modeling and analysis of vibrating systems will be discussed throughout. Students will be expected to do some numerical calculations on a computer.
Fall ENGN2735 S01 17891 TTh 9:00-10:20(02) (D. Harris)

ENGN 2750. Chemical Kinetics and Reactor Engineering.
This course focuses on the fundamentals of chemical kinetics with engineering applications. Topics include: quantum chemistry, statistical thermodynamics, and transition state theory; light versus loose transition states; the kinetics of gases, liquids, and surfaces; adsorption, desorption, surface diffusion; enzyme kinetics and biological processes; formation, solution, and interpretation of elementary mechanisms; global versus local sensitivity analysis; uncertainty quantification; and the coupling between fluid dynamics and chemical reactions.
Spr ENGN2750 S01 25612 MWF 1:00-1:50(06) (C. Goldsmith)

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 ENGN2810 S01 15523 MWF 2:00-2:50(07) (J. Ault)

ENGN 2820. Fluid Mechanics II.
Introduction to concepts basic to current fluid mechanics research: hydrodynamic stability, the concept of average fluid mechanics, introduction to turbulence and to multiphase flow, wave motion, and topics in inviscid and compressible flow.
Spr ENGN2820 S01 25614 MWF 10:00-10:50(03) (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 ENGN2910G S01 25618 F 3:00-5:30(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.
Fall ENGN2910S S01 16999 MWF 11:00-11:50(16) (L. Wong)

ENGN 2911F. Fate and Transport of Environmental Contaminants.
Physical, chemical and biological processes governing the fate and transport of contaminants in the environment. Topics to be covered include solute transport, sorption processes, mass transfer, non-aqueous phase liquid (NAPL) entrainment and dissolution, abiotic and biotic transformations. A portion of the course will involve the use of analytical and numerical models to assess the impact of coupled processes on contaminant fate and transport.
Spr ENGN2911F S01 26201 MWF 1:00-1:50(06) (K. Pennell)

ENGN 2911Q. Advanced Digital Design.
This course covers advanced digital design/implementation concepts required for successful tape-out. The first of three parts covers digital design using SystemVerilog with test bench generation and functional simulation techniques. Part two covers design and optimization techniques required to push the design through various stages of physical synthesis flow which includes logic synthesis, buffering, gate sizing, floorplanning, placement, clock tree synthesis, global routing, detailed routing, parasitic extraction, timing analysis. Part three covers core algorithms used by each stage in the flow, with techniques to optimize the design for target power, performance, area objectives. The class will use open-source design tools.
Fall ENGN2911Q S01 17416 MWF 2:00-2:50(07) (S. Reda)

ENGN 2911R. Analytical Modeling for Biomechanical and Biomedical Systems.
Students in this course will develop a fundamental understanding of important physical and mathematical modeling methods utilized in biomedical engineering. Topics covered will include mechanics, constitutive modeling, transport phenomena, differential equations, numerical methods, and probabilistic and statistical methods for biomechanical and biomedical applications. Along with gaining an introduction to these modeling methods, students will study the application of these methods in modeling tissue and cell mechanics, drug delivery and efficacy, spread and dynamics of infectious disease, design and interpretation of experiments, etc. Students will also gain experience in critical analysis of scientific literature and effective oral and written communication.
Fall ENGN2911R S01 17468 TTh 9:00-10:20(02) (V. Srivastava)
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 ENGN2912BS01 15527 MW 5:40-7:00(12) (G. Taubin)

ENGN 2912Q. Coherence of Light in Nanooptics and Plasmonics

This class is a special topics graduate course focusing on advanced concepts in optics, including spatial and temporal coherence of optical fields, higher-order coherence phenomena in space-time domain, coherence effects at the nano- and micro-scale, optical and plasmonic interferometry using partially coherent sources. The subject is aimed at graduate and undergraduate students interested in optical communications, propagation of laser beams in biological or turbulent media, optical microscopy and imaging, as well as medical diagnostics. The concepts of "flipped teaching" and "learning by teaching" will be explored. Knowledge of advanced electricity and magnetism concepts is required.

Spr ENGN2912CS01 25666 Arranged (D. Pacifici)

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 ENGN2912FS01 25621 MWF 1:00-1:50(08) (D. Borton)

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 15286 Arranged "To Be Arranged"
Spr ENGN2970 S01 24178 Arranged "To Be Arranged"

ENGN 2980. Special Projects, Reading, Research and Design.

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

ENGN 2990. Thesis Preparation.

For graduate students who have met the residency requirement and are continuing research on a full time basis.

Fall ENGN2990 S01 15287 Arranged "To Be Arranged"
Spr ENGN2990 S01 24179 Arranged "To Be Arranged"

English

ENGL 0100A. How To Read A Poem.

It is difficult to get the news from poems/ yet men die miserably every day/ for lack/ of what is found there. Poet William Carlos Williams captures this course’s focus on the special ways that poetic language represents and gives shape to human experience. Organized around concepts and practical skills, the readings cross historical and geographical boundaries.

Fall ENGL0100AS01 16020 TTh 1:00-2:20(08) (M. Rabb)

ENGL 0100D. Matters of Romance.

Narratives (1100-1500) of men, women, and elves seeking identity on the road, in bed, and at court. Readings (in modern English) include Arthurian romances, Havelok, Iais by Marie de France, and Chaucer’s "Wife of Bath’s Tale." Primarily for freshmen and sophomores. Students should register for ENGL 0100D S01 and may be assigned to conference sections by the instructor during the first week of class.

Spr ENGL0100CS01 25736 MWF 11:00-11:50(04) (E. Bryan)

ENGL 0100F. Devils, Demons, Do-Gooders.

Who hasn’t struggled with the problem of good and evil? We will investigate how various writers grapple with these fundamental questions of judgment. What constitutes good and evil in the first place, and who gets to make such judgments? Works may include John Milton, Mary Shelley, Jhumpa Lahiri, Frederick Douglass, Toni Morrison, and Herman Melville. Students should register for ENGL 0100F S01 and may be assigned to conference sections by the instructor during the first week of class.

Fall ENGL0100FS01 17112 MWF 10:00-10:50(14) (J. Egan)

ENGL 0100N. City Novels.

This course examines 20th and 21st century novels to consider how these narratives envision the city, its possibilities and limits. How does the city shape how we think, wander, grow up, see and know each other? How does the city divide people? How does the novel imagine ways to bridge those divisions? Readings by Woolf, Chandler, Wright, Cisneros, Smith, Calvino, Adiga, Whitehead.

Spr ENGL0100N S01 25896 MWF 10:00-10:50(03) (T. Katz)

ENGL 0100P. Love Stories.

What do we talk about when we talk about love? We will see how writers have addressed this question from Shakespeare’s day to the present. Writers may include Shakespeare, Austen, Eliot, Flaubert, Graham Greene, Marilynne Robinson, and/or others. Students should register for ENGL 0100P S01 and may be assigned to conference sections by the instructor during the first week of class.

Fall ENGL0100PS01 16022 MWF 11:00-11:50(16) (J. Kuzner)

ENGL 0100Y. Do the Right Thing.

An examination of literary works as developing our modern framework of moral values, along the way taking up questions of temptation, corruption, punishment, redemption, and responsibility. We will start with Christian allegorical texts (Dr. Faustus and Pilgrim’s Progress), complicate the picture with 19th century psychological fiction, and conclude with some masterpieces of art cinema.

Spr ENGL0100Y S01 24568 MWF 2:00-2:50(07) (B. Parker)

ENGL 0100Z. The Experiment: Poetry and Knowledge.

How does the notion of the experiment in both science and poetry offer an opportunity for close observation, manipulation and description of the material world? Is poetry a form of knowledge? This course will examine the role of experimentation in poetry and science as a way of generating heightened modes of sensation and focused modes of inquiry.

Fall ENGL0100Z S01 16024 MWF 1:00-1:50(06) (A. Smalbegovic)

ENGL 0150C. The Medieval King Arthur.

Where did stories of King Arthur come from and how did they develop in the Middle Ages? We will read the earliest narratives of King Arthur and his companions, in histories and romances from Celtic, Anglo- Norman, and Middle English sources, to examine Arthur’s varying personas of warrior, king, lover, thief. Enrollment limited to 19 first-year students.

Fall ENGL0150CS01 16036 TTh 9:00-10:20(02) (E. Bryan)

ENGL 0150D. Shakespeare’s Present Tense.

Shakespeare in Love suggests how Shakespeare was clued in to elite and popular cultures. Current adaptations like O and 10 THINGS I HATE ABOUT YOU demonstrate how Shakespeare provides anachronistic clues to issues of the present. This course will trace such clues by examining the cultural origins and ongoing adaptations of Shakespeare’s plays.

Fall ENGL0150DS01 16040 MWF 10:00-10:50(07) (S. Foley)

ENGL 0150E. Love and Friendship.

What do we talk about when we talk about love? This course poses this question in various ways. How, for instance, can we tell the difference between love’s various forms—between love that is friendly and love that is romantic? How do the different forms of love differently shape people? How does love work when it involves sex, or marriage, or children, or divinity? And what must love involve to be called “good”? Why? Materials will range from Plato and St. Augustine to Leo Bersani and Allen Bloom and will also include popular filmic representations of love. Limited to 19.

Spr ENGL0150ES01 24578 TTh 10:30-11:50(09) (J. Kuzner)
ENGL 0150K. The Transatlantic American Novel. This course reads American literature across national boundaries, focusing on the novel genre and the question of "American" identity as a problem in itself. The course takes up this problem in a wide array of novels spanning the period between the late eighteenth and twentieth centuries. Writers include Crevecoeur, Susanna Rowson, Poe, Melville, Twain, and Nella Larsen. Limited to 19 first-year students.

Spr ENGL0150K S01 24579 W 3:00-5:30(10) (P. Armstrong)

ENGL 0150Q. Realism and Modernism. The novel as a genre has been closely identified with the act of representation. What it means to represent "reality," however, has varied widely. This seminar will explore how the representation of reality changes as modern fiction questions the assumptions about knowing, language, and society that defined the great tradition of realism. English and American novels will be the primary focus of our attention, but influential French, German, and Russian works will be studied as well. Limited to 19 first-year students. Banner registration after classes begin requires instructor approval.

Spr ENGL0150QCS01 24580 W 11:00-11:50(04) (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 fictional tropes 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 16044 TTh 10:30-11:50(13) (O. George)

ENGL 0150Y. Brontës and Brontëism. The novels of Anne, Charlotte, and Emily Brontë alongside works (fiction and film) influence by or continuing their powerful (and competing) authorial visions: Wide Sargasso Sea (Rhys), Rebecca (Hitchcock), The Piano (Campion), and Suspiria (Argento). Among other questions, we will discuss the role of Romanticism, feminism, the bodily imaginary, colonialism, and genre. Enrollment limited to 19 first-year students.

Fall ENGL0150Y S01 17105 Th 4:00-6:30(04) (B. Parker)

ENGL 0151A. Hitchcock!. An exploration of the work of one of the most famous directors of the twentieth century. We will watch many of Alfred Hitchcock's best-loved films, including The Birds, North by Northwest, Vertigo, Psycho, Rear Window, and Rope. In addition, we will read some of the most important criticism of these films. No knowledge of film theory required. Enrollment limited to 19 first-year students.

Fall ENGL0151A S01 17110 Th 4:00-6:30(04) (S. Burrows)

ENGL 0200K. Trans–: Transformation, Translation, Transgression in Literature. From transgression to transformation to trans rights, why does the prefix "trans" appear inescapable whenever one is discussing radical change? Centering on this mercurial prefix, this course examines the possibilities and limits of change from ancient anxieties about transcendence to contemporary discussions of transnationalism and transgender identities. Authors include: Wordsworth, Woolf, Ginzburg, Plath, Morrison, Imogen Binnie, hooks, Dylan, Against Me! Enrolment limited to 17.

Fall ENGL0200K S01 17119 TTh 2:30-3:50(03) (N. Brooksher)

ENGL 0200L. Between Home and Haven: Contemporary Narratives of Revolt and Refuge. What forces dictate our perception of "home"? Is it where we come from? Somewhere we must find? Or is home what persecutes us - a place from which we must escape or rebel? This course will contemplate sanctuary, family, authoritarianism, and resistance across fiction, graphic memoir, and film. Writers may include Marjane Satrapi, Julia Alvarez, and Viet Thanh Nguyen. Enrollment limited to 17.

Fall ENGL0200L S01 17120 MWF 2:00-2:50(07) (A. Dun)

ENGL 0200M. One True Pairing ("OTP"): The Courtship Plot from Jane Austen to Jane the Virgin. What's love got to do with it? This course examines how the courtship plot, from meet-cute to marriage, shapes our understanding, not only of romance and seduction, but also of gender, race, social class, sexual orientation, empire, and literary genre. Texts include fiction by Jane Austen, Nella Larsen, Jenny Han, and Henry James, alongside Clueless, Moonlight, and Jane the Virgin. Enrollment limited to 17.

Spr ENGL0200M S01 25883 MWF 9:00-9:50(02) (C. Gilligan)

ENGL 0200N. Godforsaken Spaces: Literatures of the Demonic. Has fear of the Devil outlived the fear of God? While the demonic rationalizes unfathomable violence and renders forms of otherwise intolerable, it may also allow us to imagine social alternatives. This course will explore demonic figures in contemporary literature/film: the shapegoats, witches, and misfits that occupy the margins of society. Authors include: McCarthy, O'Connor, Morrison, Gyasi, Erdrich. Enrollment limited to 17.

Spr ENGL0200N S01 25884 MWF 1:00-1:50(06) (M. Nagelhout)

ENGL 0200P. Literatures of Anxiety. From Xanxus to safe spaces to #MAGA, our age is notoriously characterized as an unduly anxious one. But anxious by what measures? Tracking expressions of anxiety through a range of literary works, we’ll explore how the so-called “anxious” subject may yet signal a crucial, generative political position. Works by: Atwood, Dostoevsky, Abdellah Taia, Dionne Brand, Hieu Nguyen, Lacan and LaWhore Vagistan. Enrollment limited to 17.

Spr ENGL0200P S01 25901 MWF 12:00-12:50(05) (K. Sall)

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.

Fall ENGL0310A S01 16046 MWF 11:00-11:50(16) (S. Foley)

ENGL 0310G. Gender and Genre in Medieval Celtic Literatures. This course traces images of masculinity and femininity in Welsh, Cornish, Breton, and Irish narratives within and around early medieval Britain. You will be introduced to the genres of saga, romance, and the short poetic lai as you consider how the nature and gender of the hero changes in specific cultural and linguistic moments.

Spr ENGL0310GCS01 24581 MWF 12:00-12:50(05) (L. Jacobs)

ENGL 0500P. The Examined Self: Lives of the Soul. This course examines a crucial tradition in American letters and culture: the literature of self-examination and the spiritual quest. Each work focuses in some way on questions of identity and identification: We will be reading a wide range of authors and genres— spiritual autobiography, short fiction, the novel, conversion narratives, confessions, and lyric and epic poetry. Limited to 30 students.

Fall ENGL0500P S01 17098 MWF 11:00-11:50(16) (P. Gould)

ENGL 0511A. Dickens: The Novel and Society. This course rehabilitates Charles Dickens from his reputation as a mainstream writer paid by the word, most famous as the author of sentimental, implausible works for children, such as A Christmas Carol. We will be looking at Dickens’s social novels as a formally innovative response to the urban and industrial capitalism of his time. Issues will include: realism, the relation of his fiction to his journalism, serial form, and representations of work, the city, and bureaucracy.

Spr ENGL0511A S01 24637 MWF 11:00-11:50(04) (B. Parker)

ENGL 0511E. Melville, Conrad, and the Sea. Stories begin with the sea: Jason and the Argonauts, Sinbad and the Seven Seas, Odysseus trying to sail home. The sea is the place of "tall tales," of adventure, and of terror, but also of industrial labor and modern commerce. This class reads the sea narratives of Herman Melville and Joseph Conrad within this larger narrative and historical context.

Fall ENGL0511ES01 17108 TTh 1:00-2:20(08) (S. Burrows)
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 Shelbys, Byron, Clare, de Quincey, Heman, Austen. We will explore what lazeness 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 25719 TTh 10:30-11:50(09) (J. Khalip)

ENGL 0511J. Renegades, Reprobates, and Castaways.
In this ONLINE course, we’ll look at a range of literary works—including short stories, novels, graphic novels, films, and electronic literature—populated by characters cast as pirates, degenerates, depraved, and miscreants. We’ll examine how the seemingly disreputable characters, settings, and/or forms offer alternative visions of a just society by challenging powerful institutions, conventional moral principles, and/or dominant conceptions of the “normal” and “natural.”
Spr ENGL0511J S01 25723 Arranged (J. Egan)

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 African, Caribbean, and South Asian backgrounds. Issues that will concern us include: cultural-nationalism, diaspora, and globalization; histories, identities, and generational shifts; literary form and the idea of “postcolonial literature.” Authors will include Coetzee, Ghosh, Hartman, Naipaul, Ondaatje, Kincaid, Soyinka, Walcott, and Wicomb. Enrollment limited to 30.
Fall ENGL0700ES01 17103 TTh 2:30-3:50(03) (O. George)

ENGL 0700P. Reading Practices: An Introduction to Literary Theory.
What is it to read? This course is an introduction to theories of reading that have shaped literary interpretation and definitions of literature from the early twentieth century to the present, with particular attention to the relation between “literary theory” as a discipline and the broader reading practices it engenders and from which it emerges. We will read the New Criticism, structuralism, post-structuralism, and new historicism, critical race theory and feminist critiques, and recent work in aesthetics. Topics include literariness and textuality, the reader and subjectivity, narrative, rhetoric, and the problem of representation, and “new formalism.” Enrollment limited to thirty.
Spr ENGL0700PS01 25989 M 3:00-5:30(13) (E. Rooney)

ENGL 0710B. African American Literature and the Legacy of Slavery.
Traces the relationship between the African American literary tradition and slavery from the antebellum slave narrative to the flowering of historical novels about slavery at the end of the twentieth century. Positions these texts within specific literary, historical, and political frameworks. Authors may include Frederick Douglass, Harriet Jacobs, James Chensnutt, Octavia Butler, and Toni Morrison.
Fall ENGL0710BS01 16048 MWF 1:00-1:50(06) (R. Murray)

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 imaginings of death.
Spr ENGL0710VS01 24582 TTh 9:00-10:20(01) (K. Quashie)

ENGL 0710X. Black Poetics.
This course will think about black poetics through the twentieth and twenty-first centuries. Our attention will focus on formal dynamics—including genre conventions and innovation—as well as thematic/conceptual idioms (including poetics as epistemology and ontology and phenomenology). We will balance the close-reading of eight full collections with a gathering of single poems as well as critical essays.
Fall ENGL0710XS01 17293 MWF 11:00-11:50(16) (K. Quashie)

Study of the way inequality has been represented in US literature from 1945 to the present. Authors to be considered include Morrison, Updike, Wright, Highsmith, Lee, Adichie, Leavitt.
Spr ENGL0710YS01 25735 MWF 10:00-10:50(03) (D. Nabers)

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 16671 MWF 10:00-10:50(14) (K. Schapira)
Fall ENGL0900 S02 16672 MWF 9:00-9:50(01) (L. Stanley)
Fall ENGL0900 S03 16673 TTh 9:00-10:20(02) (R. Ward)
Fall ENGL0900 S04 16674 TTh 9:00-10:20(02) (A. Jackson)
Fall ENGL0900 S05 16675 MWF 9:00-9:50(01) (M. Nagelhout)
Fall ENGL0900 S06 16676 TTh 10:30-11:50(13) (C. Gilligan)
Fall ENGL0900 S07 16677 MWF 2:00-2:50(07) (K. Saill)
Spr ENGL0900 S01 25173 MWF 10:00-10:50(03) (R. Ward)
Spr ENGL0900 S02 25174 MWF 9:00-9:50(02) (A. Golaski)
Spr ENGL0900 S03 25175 MWF 1:00-1:50(06) (A. Jackson)
Spr ENGL0900 S04 25176 MWF 11:00-11:50(04) (N. Brooker)
Spr ENGL0900 S05 25177 MWF 2:00-2:50(07) (A. Dun)

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 16689 TTh 9:00-10:20(02) (L. Stanley)
Fall ENGL0930 S02 16681 MWF 8:30-9:50(01) (A. Golaski)
Fall ENGL0930 S03 16682 MWF 10:00-10:50(14) (E. Hardy)
Fall ENGL0930 S04 16683 MW 8:30-9:50(01) (M. Arnold)
Fall ENGL0930 S05 16684 MWF 12:00-12:50(15) (E. Rush)
Fall ENGL0930 S06 16685 TTh 2:30-3:50(03) (J. Readey)
Spr ENGL0930 S01 25178 MWF 1:00-1:50(06) (A. Golaski)
Spr ENGL0930 S02 25179 MWF 1:00-1:50(06) (R. Ward)
Spr ENGL0930 S03 25180 MWF 8:30-9:50(02) (M. Arnold)
Spr ENGL0930 S04 25181 MWF 12:00-12:50(05) (E. Rush)
Spr ENGL0930 S05 25182 TTh 9:00-10:20(01) (K. Schapira)

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. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1030AS01 25195 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 24584 TTh 9:00-10:20(01) (C. DeBoerLangworthy)
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 to retell 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 16060 MWF 12:00-12:50(15) (A. Golaski)

ENGL 1030F. The Artist in the Archives.
While artists can benefit greatly from archival research, 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, lyrical, and multi-media 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 16061 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 ENGL1030GS01 24586 TTh 2:30-3:50(11) (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.
Spr ENGL1050ASA01 24585 TTh 9:00-10:20(01) (E. Hardy)

ENGL 1050F. Line Work: Experiments in Short-Form Writing.
This class is based on the premise that to improve your writing, you need to write often. By responding to almost daily drills, you will develop a regular writing habit and explore a range of styles. We will take your most successful pieces through a series of workshops, helping you refine your work and ultimately build a writing portfolio. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050FS01 24587 TTh 10:30-11:50(09) (M. Stewart)

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 ENGL1050GS01 16063 TTh 10:30-11:50(09) (T. Breton)
Fall ENGL1050GS02 16064 TTh 2:30-3:50(09) (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 24589 MW 8:30-9:50(02) (T. Mooney)

ENGL 1050I. Writing for Today's Electronic Media
This course introduces students to the practice of reporting for television news, radio, and their online equivalents--online news and podcasts. Exploring the world of communications for contemporary media, the course features hands-on work in writing news, features, and opinion pieces for television, radio, online news, and podcasts. Students will develop skills in analyzing, writing, revising, and workshopping in these media. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050IN01 25900 TTh 1:00-2:20(08) (J. Readey)

ENGL 1050P. Reframing Race in Art Writing.
This seminar will consider how contemporary writers and critics respond to art that directly addresses race and challenges institutional power. We will discuss past and recent controversies involving race and representation in exhibitions and examine the relationships between artists, museums and other art institutions, and public audiences. We will consider how writers about arts and culture can advance public discourse about race, equity, and justice. Enrollment limited to 17. No pre-requisites. Writing sample required. Instructor permission required.
Fall ENGL1050PS01 17115 MWF 12:00-12:50(15) (M. Arnold)

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 ENGL1140AS01 24590 TTh 10:30-11:50(09) (L. Stanley)

ENGL 1140E. Writing for Activists.
How can writing support and further change? In this course students will practice grant applications, budget narratives, mission and strategy statements, press releases, position papers, op-eds, and other writing strategies with practical application in activist work. We’ll read examples and theoretical grounding, and guest speakers will introduce us to writings and needs specific to a range of fields. 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. Instructor permission required. S/NC.
Spr ENGL1140ES01 25729 W 3:00-5:30(10) (K. Schapira)

ENGL 1160F. Reporting Crime and Justice.
Crime and justice stories are people stories. The drama of everyday life is played out every day in courtrooms. This advanced journalism course will get students into the courtrooms, case files and archives of Rhode Island’s judicial system and into committee hearings at the State House where they will report on stories that incorporate drama, tension, and narrative storytelling. Prerequisite: ENGL1050G, ENGL1050H or ENGL1160A (Advanced Feature Writing). Enrollment limited to 17. Instructor permission required. Preference will be given to English concentrators. S/NC.
Spr ENGL1160FS01 24591 M 3:00-5:30(13) (T. Breton)
ENGL 1180B. Digital Nonfiction.
In this class, we will join the host of other artists, activists, and writers that have used Twitter bots, iPhone apps, virtual reality experiences, and more to tell compelling stories. No previous digital writing experience is necessary, however, as an advanced creative nonfiction class, Digital Nonfiction requires students to have completed ENGL 0930 or any 1000-level nonfiction writing course. Enrollment is limited to 17. Instructor permission required. S/NC.
Spr ENGL1180B 24922 TTh 2:30-3:50(11) (M. Stewart)

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 ENGL1180CS01 24953 TTh 1:00-2:20(08) (C. DeBoer-Langworthy)

ENGL 1180G. Lyricism and Lucidity.
For the advanced writer. This course will explore two subsets of the personal essay that blur or cross boundary lines—the lyric essay and the photographic essay—in both traditional and experimental formats. Writing sample required. Prerequisite: ENGL 0930 or any 1000-level nonfiction writing course. Not open to first year students. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1180GS01 24954 TTh 2:30-3:50(11) (C. Imbriglio)

ENGL 1180H. Satire and Humor Writing.
For the advanced writer. This course will introduce students to the practice of writing satire and humorous essays. Readings will include works by Jonathan Swift, Mark Twain, Garrison Keillor, Bill Bryson, David Foster Wallace, David Sedaris, and others, and students will develop skills in analyzing, writing, and workshopping in the genre. 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 ENGL1180HS01 24956 Th 4:00-6:30(17) (J. Readey)

ENGL 1180I. Writing Medical Narrative.
This class will examine the recent trend toward the use of narrative in medicine and the recent trend of published medical narrative. We'll look at literary and cultural narratives of sickness and health and how they shape perceptions and treatments, while keeping the science and politics of health care—and its public discourse—in view. Writing sample required. Prerequisite: ENGL0900, ENGL0930, 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 ENGL1180I 16065 MWF 1:00-1:50(06) (K. Schapira)

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 ENGL1180P 16066 MWF 2:00-2:50(07) (E. Hardy)

ENGL 1180U. Testimony.
How does the creative nonfiction writer bear witness to profound political, social, and environmental change? In this course students engage with the world as writers. They will conduct extensive interviews within the Brown community and beyond and will turn those first hand testimonials into a suite of creative nonfiction pieces in various genres including the lyric, personal, “found,” and multi-media essay. 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.
Spr ENGL1180U 24596 F 3:00-5:30(15) (E. Rush)

ENGL 1180V. Asian American Narrative.
This course considers themes, forms, and contexts of Asian American narratives. We will examine diverse representations of Asian American experience and explore the questions these texts raise about race and ethnicity; self-invention and identity; and visibility and representation. We’ll consider how Asian American authors have used writing to reclaim agency, preserve cultural memory, and redress past and present injustice. Prerequisite: ENGL0930 or any 1000-level nonfiction writing course. Writing sample required. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference given to English concentrators. Instructor permission required. S/NC.
Spr ENGL1180V 24597 MWF 12:00-12:50(05) (M. Arnold)

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 ENGL1190M 16067 TTh 10:30-11:50(18) ‘To Be Arranged’
Fall ENGL1190MS02 16068 TTh 1:00-2:20(18) (A. Jackson)

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 ENGL1190U 16069 T 4:00-6:30(09) (R. Ward)

ENGL 1190X. Nonfiction Now.
Nonfiction Now introduces students to contemporary nonfiction writing through in-person exposure to professional writers, who will visit the course to deliver a craft lecture, read from their latest work and discuss the labor that goes into maintaining a professional writing life. Students will be expected to read the work of the visitor and produce creative work in response. Prerequisite: ENGL 0930 or any 1000-level nonfiction writing course. Class list will be reduced to 30 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 ENGL1190X 16488 F 3:00-5:30(11) (M. Stewart)

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 1311G. Shakespeare, Love and Friendship. Shakespeare portrays friends who are compared to a "double cherry"; a lover who wants to cut her beloved out in little stars; and pitfalls of affection, whether personal or political? What happens to that affection when Shakespeare is adapted into film?
Spr ENGL1311GS01 25727 TTh 2:30-3:50(11) (J. Kuzner)

ENGL 1311M. Renaissance Poetry and Its Kinds. English poetry from 1500-1650 traces a revolutionary arc of poetic invention remarkable for diverse individual voices and literary kinds. Forms such as lyric, heroic, pastoral, satiric, epistle, and epigram embraced concerns that were examined affective, political, and religious. How does this variety constitute literature? Wyatt, Surrey, Raleigh, Spenser, Sidney, Marlowe, Donne, Jonson, Herrick, Herbert, Crashaw, Milton.
Spr ENGL1311MS01 25724 TTh 10:30-11:50(09) (S. Foley)

ENGL 1360H. Introduction to the Old English Language. This course offers a thorough introduction to the earliest period of English language and literature. We begin with an extensive coverage of grammar and syntax before reading short texts and a few Old English poems, including The Battle of Brunanburh and Judith. Enrollment limited to 20.
Spr ENGL1360H S01 24598 MWF 2:00-2:50(07) (L. Jacobs)

ENGL 1360J. Middle English Literature. In the age of Chaucer, literature in Middle English ranged from lyrics to romance narratives to mystery plays and medieval genres like dream visions and debate poems. This course will introduce students to reading texts like Sir Gawain and the Green Knight and The Owl and the Nightingale in their original Middle English. No prerequisites. Not open to first-year students. Enrollment limited to 20.
Fall ENGL1360JS01 16049 TTh 1:00-2:20(08) (E. Bryan)

ENGL 1361D. Writing and the Ruins of Empire. An exploration of literary representations of "empire" and "imperialism" from the 18th century to the present. Readings in Gibbon's Decline and Fall of the Roman Empire, Volney's Ruins of Empire, and a wide range of 19th- and 20th-century texts. Some consideration of theories of imperialism and of visual representations of cultures of empire. Enrollment limited to 20. Prior coursework in 18th- and 19th-century literature advised.
Fall ENGL1361DS01 17335 M 3:00-5:30(05) (W. Keach)

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 ENGL1511FS01 17101 MWF 10:00-10:50(14) (J. Khalip)

ENGL 1511Y. Emily Dickinson and the Theory of Lyric Form. This class examines the extraordinary work of Emily Dickinson in an attempt to understand what lyric poetry is and how it works. We will read a generous sampling of Dickinson’s poetry as well as a number of the major theoretical accounts of the lyric. Enrollment limited to juniors and seniors.
Spr ENGL1511YS01 25720 MWF 10:00-10:50(03) (S. Burrows)

ENGL 1516C. Swift and His Contemporaries. Jonathan Swift’s works are central to this course’s investigation of early 18th-century literature and culture. The reading focuses on the period as an "information age" energized by issues not unlike those of our own time: partisan politics, money, proliferation of new forms of textuality, globalization, changing views on gender and sexuality, love, religion, and war. The emphasis will be on irony, parody, and satire. Other writers include Congreve, Defoe, Manley, Pope, Gay, Montagu, Addison, and Steele. Students who have taken ENGL 1510T may not register for ENGL1510T. Enrollment limited.
Spr ENGL1516CS01 24600 M 3:00-5:30(13) (M. Rabb)

ENGL 1516D. Writing and the Ruins of Empire. An exploration of literary representations of "empire" and "imperialism" from the 18th century to the present. Readings in Gibbon’s Decline and Fall of the Roman Empire, Volney’s Ruins of Empire, and a wide range of 19th- and 20th-century texts. Some consideration of theories of imperialism and of visual representations of cultures of empire. Enrollment limited to 20. Prior coursework in 18th- and 19th-century literature advised.
Fall ENGL1516DS01 17335 M 3:00-5:30(05) (W. Keach)

ENGL 1516K. Restoration and Eighteenth-Century Drama. After almost two decades of closure, public theaters re-opened in 1660. This new beginning occasioned new plays, new kinds of performance and production, and new intersections between the stage and society. We will study works by Etherege, Wycherly, Congreve, Dryden, Bohn, Gay, Lillo, Sheridan, and others. Not open to first-year students.
Fall ENGL1516KS01 16052 M 3:00-5:30(05) (M. Rabb)

ENGL 1516N. What is an Author?: Poe, Hawthorne, Dickinson. What does it mean to be identified as an "author"? How did the practices of writing and reading change in 19th-century America? This course addresses such questions by reconsidering the literary careers of Hawthorn, Poe, and Emily Dickinson. Our work will investigate literary culture and book history, focusing on 19th-century authors, readers, magazines, publishing, criticism, and popular media. Enrollment limited to 20.
Fall ENGL1516NS01 17100 W 3:00-5:30(17) (P. Gould)

ENGL 1580. Undergraduate Independent Study in the Enlightenment and the Rise of National Literatures. Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor permission required.

ENGL 1710P. The Literature and Culture of Black Power Reconsidered. This course reexamines the Black Power movement as a signal development in American literature and culture. We will read classics from the period with a view toward reassessing the nuances and complexities of their form and politics. At the same time, we will recover less familiar texts that complicate conventional understandings of what defines this movement. Authors include Malcolm X, Huey P. Newton, Angela Davis, Eldridge Cleaver, John Edgar Wideman, Ernest Gaines, and Amiri Baraka.
Spr ENGL1710PS01 24601 TTh 1:00-2:20(08) (R. Murray)
ENGL 1710Q. Bloomsbury and Modernism
The contribution of the avant-garde "Bloomsbury Group" to the development of literary modernism. The focus will be on the central literary figures (Virginia Woolf, E. M. Forster, and T. S. Eliot), but attention will also be paid to the visual arts (Roger Fry, Vanessa Bell, and Post-Impressionism) and to social criticism (Lytton Strachey, Leonard Woolf, and John Maynard Keynes).
Fall ENGL1710S01 17109 TTh 10:30-11:50(13) (P. Armstrong)

ENGL 1711H. Lyric Concepts: The Question of Identity 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 form of social content. This course draws on poets such as Rankine, Moten, Robertson, Hejinian and the critical tools of affect theory to trouble these distinctions.
Fall ENGL1711HS01 16025 MWF 10:00-10:50(14) (A. Smilbegovic)

ENGL 1711M. Gertrude Stein and What Comes After.
In this course, we will read a range of works written by Gertrude Stein and examine how they have influenced the landscape of post-1945 literature, focusing primarily on poetry.
Spr ENGL1711S01 24638 TTh 1:00-2:20(08) (A. Smilbegovic)

ENGL 1711N. Monsters in our Midst: The Plantation and the Woods in Trans-American Literature.
This course focuses on how literary and visual culture grappled with land as a topographic entity in relation to race, gender, and time. Students read literature about the Caribbean and parts of the U.S., produced from the 19th century to the present. Readings include Marlon James's The Book of Night Women and Jean Rhys's Wide Saragasso Sea.
Fall ENGL1711NS01 17114 MWF 2:00-2:50(07) (D. Ramirez)

ENGL 1760Y. Toni Morrison.
This 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 ENGL1760YS01 16053 M 3:00-5:00(35) (K. Khaisie)

ENGL 1761D. Hollywood and American Modernism from FDR to JFK.
Study of the interactions among Hollywood and modernism from the beginning of the sound era through the early 1960s. Authors and directors to be considered include: Loos, Fitzgerald, Faulkner, West, Ferber, Hawks, Wilder, Hitchcock, Mann, and Ford. Enrollment limited to 20.
Fall ENGL1761DS01 16026 TTh 2:30-3:50(03) (D. Nabers)

ENGL 1761V. The Korean War in Color.
We examine US and South Korean representations of the Korean War. We look at how this event was depicted in US films of the 1950s with a focus on how it occasioned a transformation of American understandings of race, both domestically and transnationally. We then look at how this event has been memorialized by contemporary American authors as well as in South Korean literature and film. Authors we read include: Susan Choi, Ha Jin, Chang-rae Lee, Toni Morrison, Jayne Anne Phillips and Hwang Sok-Yong. Enrollment limited to 20. Not open to first-year students.
Spr ENGL1761VS01 24602 F 3:00-5:30(15) (D. Kim)

ENGL 1762D. Kubrick.
On Kubrick's feature films, documentaries, and photography, starting with his sci-fi masterpiece 2001, followed by his early noirs (Killer's Kiss; The Killing); sex films (Lolita; A Clockwork Orange; Eyes Wide Shut); and war films (Paths of Glory; Dr. Strangelove; Full Metal Jacket). Topics include: adaptation; genre; masculinity in extremis; technophilia and technophobia; the aesthetics of violence; and sex on film. Limited to 20 junior and senior concentrators in English and MCM. Instructor permission required.
Spr ENGL1762DS01 24854 W 3:00-5:30(10) (R. Rambuss)

ENGL 1780. Undergraduate Independent Study in Modern and Contemporary Literatures.
Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor's permission required.

ENGL 1900J. Zoopoetics.
This course will explore the intersections between the depictions of plants and animals in twentieth and twenty-first century poetry and the theoretical conversations about non-human worlds unfolding in emerging fields, such as animal studies and the environmental humanities. Readings will range from poetic texts by Francis Ponge and Marianne Moore to theoretical texts by figures such as Donna Haraway.
Spr ENGL1900JS01 25733 TTh 9:00-10:20(01) (A. Smilbegovic)

ENGL 1900K. Reading Sex.
How do we interpret "sex," as a concept, as a thing, as a phenomenon? What kinds of ethical, political, historical, and aesthetic contexts are informed by—and, in turn, form—our sense of "sex" itself? This course will focus on intensive close readings of various queer theoretical texts, novels, and films that variously try to think through the multiple ways we try to represent and render sex legible, while at the same time calling into question our sense of what, ultimately, sex can be as something that both binds and unbinds the human. Enrollment limited to 20.
Fall ENGL1900KS01 17102 W 3:00-5:30(17) (J. Khaisie)

ENGL 1900Z. Neuroaesthetics and Reading.
Analysis of the theories of art, reading, and aesthetic experience proposed by neuroscience and cognitive science in light of traditional aesthetics and contemporary literary theory. Enrollment limited to 20. Prerequisite: At least one course on neuroscience or cognitive science and one 1000-level literature course. Instructor permission required.
Spr ENGL1900ZS01 24604 F 3:00-5:30(15) (J. Khaisie)

ENGL 1901J. Fanon and Spillers.
This course will consider the conceptual/theoretical contributions of Frantz Fanon and Hortense Spillers, as frames for reading some iconic texts in the black literary canon. Central to our study will be an exploration of blackness, subjection, and gendering—as well as thinking about how these idioms relate to the genre conventions of our course's literary works. Enrollment limited to 20 juniors and seniors. Instructor permission required.
Spr ENGL1901JS01 25726 TTh 2:30-3:50(11) (K. Khaisie)

ENGL 1950H. The Recent Novel and its Cultural Rivals.
A careful consideration of several major late twentieth- and early twenty-first century Anglophone novels in terms of their relationship to rival aesthetic forms and media—film, television, radio, video games, and the like. Writers to be considered include: Morrison, Lee, Rushdie, Smith, Didion, Diaz, Pynchon, and Egan. Enrollment limited to 20 senior English concentrators. Others admitted by instructor permission only.
Spr ENGL1950HS01 25730 MWF 2:00-2:50(07) (D. Nabers)

ENGL 1950K. Shakespeare's Comedies.
We will read a selection of Shakespeare's comedies with attention to his European sources and analogues. Consideration of both formal and historical questions including genre, convention, the Shakespearean text, gender, sexuality, status and degree, and nation. Written work to include two papers, one a close reading and a longer final paper on a topic of your choice. Limited to 20 senior English concentrators.
Fall ENGL1950KS01 16028 T 1:00-3:30(08) (K. Newman)

ENGL 1950L. Inoperative Selves.
We examine US and South Korean representations of the Korean War. We look at how this event was depicted in US films of the 1950s with a focus on how it occasioned a transformation of American understandings of race, both domestically and transnationally. We then look at how this event has been memorialized by contemporary American authors as well as in South Korean literature and film. Authors we read include: Susan Choi, Ha Jin, Chang-rae Lee, Toni Morrison, Jayne Anne Phillips and Hwang Sok-Yong. Enrollment limited to 20. Not open to first-year students.
Spr ENGL1950LS01 24569 Th 4:00-6:30(17) (J. Khaisie)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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/NC. Fall ENGL1991 S01 16054 Th 4:00-6:30(04) (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 17152 Arranged (P. Armstrong) Spr ENGL1992 S01 25773 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/NC. Fall ENGL1993 S01 16055 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 17153 Arranged (C. Imbriglio) Spr ENGL1994 S01 25774 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/NC. Fall ENGL2210 S01 16056 F 10:00-12:30(14) (R. Reichman)

ENGL 2360Y. Lyric and Ecstasy. This seminar primarily focuses on ecstatic states in the lyric verse of three extraordinary seventeenth-century English poets—John Donne, Richard Crashaw, and John Milton—who are rarely read together. We will consider lyric poetry—both erotic and religious—not only as an apposite medium for rendering ecstatic experience, but also how lyric poetry itself might function as a stimulus for ecstasy. We might also venture into some consideration of music along similar lines. Limited to 15 graduate students. Fall ENGL2360YS01 17359 W 3:00-5:30(17) (R. Rambuss)

ENGL 2361C. Books of Love: Ruiz and Chaucer. Discourses of love animated the vernacular literary masterworks of Juan Ruiz (c.1283-c.1350) and Geoffrey Chaucer (c.1342-1400), near-contemporaries who became celebrated canonical authors in Spain and England, respectively. This course considers their writings comparatively, in literary and historical context. Readings include Le Roman de la rose; Ruiz’s El Libro de buen amor; Chaucer's Troilus and Criseyde (with instruction in Middle English). Qualified, advanced undergraduates will be admitted by instructor permission only. Spr ENGL2361CS01 24570 M 3:00-5:30(13) (E. Bryan)

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 15282 Arranged 'To Be Arranged'

ENGL 2561T. Rhetoric and Narrative Discourse, from Austen to James. An introduction to narrative theory and problems of meaning in fiction, including Roland Barthes’ “readably text.” Wayne Booth’s “implied author,” Kenneth Burke's “socially symbolic” narration, Mikhail Bakhtin’s "polyphonic novel," and others. To be studied alongside novels by: Jane Austen, Charles Dickens, George Eliot, Henry James, Anthony Trollope.) Attention especially paid to the contested zone between author, narrator, and character. Enrollment limited to 15. Fall ENGL2561TS01 16029 F 3:00-5:30(11) (B. Parker)

ENGL 2580. Graduate Independent Study in the Enlightenment and the Rise of National Literatures. Section numbers vary by instructor. May be repeated for credit. Instructor's permission required.

ENGL 2761B. Temporalities. Centered on modernism and the early 20th century, this course will investigate the varied models of time pulsing through literary and theoretical texts, and consider a range of issues, including memory and forgetting, historical progress and decay, utopian futurity, and queer temporalities. Readings include work by Freud, Bergson, Nietzsche, Benjamin, Joyce, Woolf, Barnes, Stein, Faulkner. Enrollment limited to 15. Fall ENGL2761BS01 16057 Th 4:00-6:30(04) (T. Katz)

ENGL 2761C. Black Internationalism and Its Discontents. This seminar reassesses the broad influence of internationalism in African American letters from the age of abolition to the present. We will be concerned with literary writings that foreground the global struggle of black subjects to assert political agency in relation to Western imperialism and transatlantic slavery. Equally crucial will be a reconsideration of an established body of theoretical writings that conceive of diasporic modes of solidarity and cultural expression as alternatives to the black nationalist intellectual tradition. Authors include Martin Delany, W.E.B Du Bois, Richard Wright, Angela Davis, Brent Edwards, and Paul Gilroy. Spr ENGL2761CS01 25916 Th 4:00-6:30(17) (R. Murray)

ENGL 2761J. Identity and Agency. Any consideration of identity is bound to run up against the concept of agency. Considering identity and agency as mutually constitutive, this course looks at identity's formation and reformation as a narrative experience and effect, examining its emergence on historical and affective terrains. Approaching identity from a range of vantages (psychoanalysis, gender, history, law), we trace the ways that identities might be consolidated into (or, alternatively, unravel) cultural, political, national, or social arrangements. Works by Woolf, Selvon, James Weldon Johnson, Christopher Isherwood, Proust, Fanon, Arendt, Freud, Winnicott, Butler. Enrollment limited to 15. Fall ENGL2761JS01 17495 Th 9:30-12:00(13) (R. Reichman)

ENGL 2761S. Naturalism and the Anthropocene. The world of naturalist fiction is strange and terrifying: monstrous new forms of life; speaking animals; suicide; madness; financial ruin; ecological disaster. We will study this world in light of our catastrophic present, reading recent work in new materialism, neuroscience, animal studies, science studies, and environmentalism. Authors include Zola, Stein, Wharton, Chenessett, Conrad, Hardy, Nietzsche, Bergson, Freud, Du Bois, James. Enrollment limited to 15 graduate students. Spr ENGL2761SS01 24571 F 3:00-5:30(15) (S. Burrows)

ENGL 2780. Graduate Independent Study in Modern and Contemporary Literatures. Section numbers vary by instructor. May be repeated for credit. Instructor's permission required.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ENGL 2901K. Theory, Technologies, Religion.
Critical theory has a rich history of engagement with fundamental and overlapping questions of technics, media and religion. This seminar focuses mainly on important texts from the last century (Benjamin, Heidegger, Levinas, Derrida, Agamben), but also reads more broadly in the post-Enlightenment critical and speculative tradition (Kant, Hegel, Marx, Freud, Weber). Selections from the Bible and readings from a few literary texts from various eras will also be assigned. Enrollment limited to 15 graduate students.

ENGL 2901L. Studying Humanities in an Information Age.
What role can the humanities serve in a culture increasingly dominated by and imagined in terms of information? What are the conceptual and political implications of the use of “big data” in humanistic study? More broadly, what role does the digital turn play in shaping cultural concepts that provide the foundation for dominant ways of organizing knowledge and social structures? Enrollment limited to 15.

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 16059 T 12:00-2:30(08) (J. Readey)

ENGL 2970. Preliminary Examination Preparation. 
For graduate students who have met the residency requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.
Fall ENGL2970 S01 15283 Arranged
Spr ENGL2970 S01 24176 Arranged

ENGL 2990. Thesis Preparation. 
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall ENGL2990 S01 15284 Arranged
Spr ENGL2990 S01 24177 Arranged

ENGL XLIST. Courses of Interest to Students Concentrating in English.
Fall 2019
These courses, offered in other departments, are cross listed with the English Department and do not require advisor approval to count toward the concentration for English concentrators. Please refer to the primary department for registration details.

American Studies
AMST 2220Q The Homo Sapiens at the End of the World; or, Readings in Race Theory
Comparative Literature
COLT 1431C Poets, Poetry, and Politics
Judaic Studies
JUDS 0820 The Language of Religious Faith
Modern Culture and Media
MCM 2110T The Contingency of Critique

Spring 2020
These courses, offered in other departments, are cross listed with the English Department and do not require advisor approval to count toward the concentration for English concentrators. Please refer to the primary department for registration details.

Ethnic Studies
ETHN 1750S Extravagant Texts: Reading the World Through Asian American Literature

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.
Fall ENVS0070S01 16515 TTh 1:00-2:20(08) (K. Teichert)

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 16518 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 capitalist and post-capitalist, socio-centric and technocentric visions of the transition away from fossil fuels. Class will be meet on the RISD campus.
Fall ENVS0150 S01 16521 Th 4:15-7:15(04) (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 cannot be easily or inexpensively replicated. Special emphasis will be placed on climate, food and water supply, population growth, and energy.
Spr ENVS0490 S01 24972 TTh 9:00-10:20(01) (T. Kartzinelo)

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 exposures to “bads”, to unequal 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 24949 TTh 2:30-3:50(11) (J. Roberts)

This course introduces students to political ecology — an approach to environmental issues that emphasizes power relations, inequalities, and difference. After surveying the genealogy, diversity and theoretical basis of political ecology, we will examine case studies that draw on the approach. By focusing on the relationship between nature, power, economics and the making of environmental knowledge, this course will illustrate how environmental questions are always deeply political. We will discuss new analytical directions political ecologists have developed in recent decades and assess what we gain as environmental researchers when we actively interrogate power.
Spr ENVS0715 S01 24950 MWF 2:00-2:50(07) (E. Lord)
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. By the end of this course, students will understand the processes of spatial data analysis, geographic databases, visualization and cartography, and uncertainty quantification. Students will produce an independent final research project and present their results in a highly-visual flash talk and an open-access poster presentation session. Course override required. Contact the instructor (samiah_moustafa@brown.edu) with year, concentration, and statement of interest.

ENVS 1245. Air Pollution & Chemistry.
Air pollution is a major concern across the globe, impacting human health, ecosystems, and climate. This course will provide students with an understanding of the chemical and physical processes that determine the composition of the atmosphere, with an emphasis on the dispersion of pollutants responsible for urban smog, acid rain, climate change, and the ozone hole. Topics to be covered also include health and environmental impacts of air pollutants, potential technological solutions, air pollution monitoring, and international policy regulations. Prerequisites: CHEM 0330, CHEM 0500, ENGN 0720 or similar.

This course equips students with theoretical and empirical tools to analyze environmental issues from the perspective of economics. First, we review when and why the markets fail, competing 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).

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.

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.

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.

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.

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.

ENVS 1545. The Theory and Practice of Sustainable Investing.
21st century businesses and investors face a broadening and deepening array of Environmental, Social, and Governance (ESG) risks and opportunities. Climate change, water scarcity, community conflicts, resource depletion, supply chain breakdowns, worker well-being and economic inequality pose present material challenges that make sustainability an imperative for successful corporations and investors. We will examine current ESG strategy, trends, future scenarios, players, frameworks and integrate that theory with practical investment performance analysis, metrics, and study of screens, asset classes, and diversification.

ENVS 1553. Feeding Ten Billion - The past, present and future of food.
This course will explore the evolution of food production over the course of human history, with particular emphasis on the 20th and 21st centuries. We will focus on the intersection of three major topics: population growth, socioeconomic development and environment. The course will prepare students to think about scalable solutions for feeding a growing global population that is almost certain to reach 10 billion people by 2050. It is aimed at sophomores and juniors with experience in one or more of these core topics. Readings will include the primary scientific literature. Coursework will include project based learning, lectures, and discussions.

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).

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ENVS 157. Birding Communities
This seminar explores and builds communities around a charismatic and conspicuous class of animals: birds. The irony is that birds are marvelously diverse and abundant, but birding is associated with a narrow and privileged sector of society. Course readings address the politics of knowledge and modes of inclusion and exclusion in birding practice. While studying these hierarchies worldwide and historically, we create our own community of knowledge and practice through a “birding buddies” program in a local urban school. Students will learn from interdisciplinary scholarship, school children, and not least, the birds. History matters. Be woke. Think globally. Bird locally.
Fall ENVS1557 S01 15357 Th 4:00-6:30(04) (N. Jacobs)

ENVS 1599. Energy and Power (ANTH 1553).
Interested students must register for ANTH 1553.
Fall ENVS1559 S01 17247 Arranged 'To Be Arranged'

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 16526 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 24966 TTh 10:30-11:50(09) (K. Teichert)

ENVS 1605. Glaciers and Climate Change.
What is the fate of glaciers in a warming world? Where, how much, and how rapidly will glaciers melt? This course investigates how Earth’s glaciers are responding to climate change. This class will provide a comprehensive overview of changes to Earth’s glaciers, ice caps, and ice sheets, synthesize the latest scientific information, find gaps in our current knowledge, and identify what questions should be explored in future research. And, students will work with glacier-based observations and interpret trends using remote sensing, GIS, and/or other visualization techniques. Topics will also include impacts to sea level rise, ocean circulation, and water resources.
Fall ENVS1605 S01 17095 TTh 2:30-3:50(03) (S. Moustafa)

The diminishing quantity and quality of the resources of the Earth carries profound implications for the fulfillment of human rights and aspirations. But even as we understand better the intrinsic interdependencies between humans and the environment, policy gridlock persists. Indeed, the findings of fundamental environmental science are regularly contested on political grounds. The purpose of this course is to learn how to apply knowledge to map the relevant policy context in environmental issues, and to develop the tools and approaches to address any problem of decision in the environmental arena more creatively, effectively, and responsibly. Enrollment limited to 10.
Fall ENVS1615 S01 17094 M 3:00-5:30(05) (A. Lynch)

Wetlands are increasingly recognized as dynamic ecosystems, but for much of human history were valued only after being drained to make farmland. This course explores how humans have used, transformed and destroyed wetlands around the world over the past two millennia. In some cases people have entirely rebuilt hydrological systems with dikes, sluices and dams, creating landscapes that require constant management and investment to remain livable. Studying the environmental history of wetlands can help with conservation, managing cities built upon them, and recognizing how coastal peoples can adapt to rising sea levels.
Spr ENVS1915 S01 26277 Th 4:00-6:30(17) (E. Lord)

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 Bosworth, kai_bosworth@brown.edu.
Fall ENVS1920 S01 16792 TTh 1:00-2:20(08) (E. Lord)

From coal power to solar power, energy drives economies and increases quality of life worldwide. However, this same energy use can, and often does, lead to severe environmental destruction/pollution and global warming. This course serves as an introduction to energy policy in the United States and also explores global attempts to solve energy problems. This course examines different types of energy sources and uses, different ideological paths driving energy policy, the environmental impacts of energy use, current global and domestic attempts to solve energy problems, and the role of renewable and alternative forms of energy in future energy policy.
Spr ENVS1925 S01 24971 M 3:00-5:30(13) (D. King)

Interested students must register for GEOL 1950P.
Fall ENVS1950P S01 17865 Arranged 'To Be Arranged'

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.

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

Fall FREN0100 S01 22760 MWF 10:00-10:50(09) (G. Khabarovskiy)
Fall FREN0100 S02 15535 MF 9:00-9:50(09) (G. Khabarovskiy)
Fall FREN0100 S03 15535 TTh 10:30-11:50(09) (G. Khabarovskiy)
Fall FREN0100 S04 15645 MF 10:00-10:50(09) (G. Khabarovskiy)
Fall FREN0100 S05 15645 TTh 10:30-11:50(09) (G. Khabarovskiy)
Fall FREN0100 S06 15645 MF 10:00-10:50(09) (G. Khabarovskiy)
Fall FREN0100 S07 15645 TTh 10:30-11:50(09) (G. Khabarovskiy)

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.

Spr FREN0200 S01 15535 MF 9:00-9:50(02) (S. Ravillon)
Spr FREN0200 S02 15645 TTh 10:00-10:50(11) (S. Ravillon)
Spr FREN0200 S03 15645 TTh 10:30-11:50(11) (S. Ravillon)
Spr FREN0200 S04 15645 MF 10:00-10:50(11) (S. Ravillon)
Spr FREN0200 S05 15645 TTh 10:30-11:50(11) (S. Ravillon)
Spr FREN0200 S06 15645 MF 10:00-10:50(11) (S. Ravillon)
Spr FREN0200 S07 15645 TTh 10:30-11:50(11) (S. Ravillon)
Spr FREN0200 S08 15645 MF 10:00-10:50(11) (S. Ravillon)

FREN 0300. Intermediate French I.
A semi-intensive elementary review with emphasis on all four skills (listening, speaking, reading and writing). Class activities include drills, small group activities, and skits. 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.

Fall FREN0300 S01 15535 MWF 10:00-10:50(09) (G. Khabarovskiy)
Fall FREN0300 S02 15535 MWF 10:00-10:50(09) (G. Khabarovskiy)
Fall FREN0300 S03 15535 MWF 10:00-10:50(09) (G. Khabarovskiy)
Fall FREN0300 S04 15535 MWF 10:00-10:50(09) (G. Khabarovskiy)

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.

Fall FREN0400 S01 15535 MF 10:00-10:50(09) (G. Schultz)
Fall FREN0400 S02 15535 MF 10:00-10:50(09) (G. Schultz)
Spr FREN0400 S01 24254 MF 10:00-10:50(16) "To Be Arranged"
Spr FREN0400 S02 24312 MF 10:00-10:50(16) "To Be Arranged"
Spr FREN0400 S03 24313 MF 10:00-10:50(16) "To Be Arranged"

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.

Fall FREN0500 S01 15538 MWF 10:00-10:50(09) (S. Ravillon)
Fall FREN0500 S02 15652 MWF 10:00-10:50(09) (S. Ravillon)
Fall FREN0500 S03 15653 MWF 10:00-10:50(09) (S. Ravillon)
Fall FREN0500 S04 15654 MWF 10:00-10:50(09) (S. Ravillon)
Spr FREN0500 S01 24255 MWF 10:00-10:50(16) "To Be Arranged"
Spr FREN0500 S02 24314 MWF 10:00-10:50(16) "To Be Arranged"
Spr FREN0500 S03 24315 MWF 10:00-10:50(16) "To Be Arranged"
Spr FREN0500 S04 24316 MWF 10:00-10:50(16) "To Be Arranged"

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.

Fall FREN0600 S01 15540 MWF 10:00-10:50(18) (S. Ravillon)
Fall FREN0600 S02 15655 MWF 10:00-10:50(18) (S. Ravillon)
Fall FREN0600 S03 15656 MWF 10:00-10:50(18) (S. Ravillon)
Spr FREN0600 S01 24256 MWF 10:00-10:50(12) (S. Ravillon)
Spr FREN0600 S02 24317 MWF 10:00-10:50(12) (S. Ravillon)
Spr FREN0600 S03 24318 MWF 10:00-10:50(12) (S. Ravillon)

FREN 0620. Writing and Speaking French II: Literature - L'inquiétant étranger.
Same level as FREN 0600. The other, whether it is the immigrant, the transgendered, the new neighbor, has always inspired curiosity, mistrust and often fear. This course will examine the different representations of the stranger in contemporary Francophone literature and film, cultural theory and media representations. Topics include race, sexuality, tourism, immigration, identity, mental illness and exclusion. Readings will feature contemporary works (Ananda Devi, Edouard Louis, Amélie Nothomb, Laferrière, Diome). Discussions and writing assignments are based on those sources and introduce students to the analysis of literature. Prerequisite: FREN 0500. Enrollment limited to 15. Taught in French.

Spr FREN0620 S01 24273 MWF 10:00-10:50(09) "To Be Arranged"

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, female 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 24308 MWF 10:00-10:50(11) (G. Schultz)

FREN 0720G. L’art de la nouvelle.
In this course we shall study a range of examples of the nouvelle or short story, from 19th century realist and fantastic literature (Maupassant, Flaubert, Colette) to modern French and Francophone texts (Sartre, Camus, Djebar, Redonnet, Quiriny). Emphasis will be on formal analysis, major genres/movements (realism, the fantastic, existentialism, anti-/post-colonial critique, “post-modernism”) and the short story’s capacity to offer forms of social critique. We will also read some secondary theoretical materials (Freud, Sartre, Barthes, Todorov, Piglia, Samoyault). Taught in French.

Fall FREN0720G S01 17049 TTh 10:00-10:50(09) (T. Ravindranathan)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
FREN 0820B. Qu’est-ce que l’identité?
From the 17th century to modernity the question of identity has been posed in various terms: philosophical (Descartes: "I think therefore I am"), political (Louis XIV: "I am the state"), and poetic (Rimbaud: "I is another"), before being determined in the contemporary context as a means of ethnic or gender identification. We will examine a series of historic (Descartes, Rimbaud) and more recent texts (Glissant, Duras, Daoud, Darrieussecq) in which the self is called critically into question, in order to better understand how identity always stages a play of same and other. Taught in French.
Spr FREN0820BS01 25925 Th 4:00-6:30(17) (D. Willis)

A study of the evolution of the French language from the Middle Ages to the present. We will trace the major periods of this linguistic, social, historical and political development. Among topics to be explored: France’s encounter with English from the Norman conquest to the current so-called English “invasion,” the French Revolution’s destruction of dialects (patois), and the status of French in France’s former colonial empire. Through a variety of French and francophone texts we will investigate the transformations brought about by Feminists and by youth from the banlieues and examine the status of French outside of France. 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.
Spr FREN1020AS01 24257 TTh 10:30-11:50(09) (O. Mostefaia)

FREN 1040C. Le Grand Siècle à l’écran.
Why is the "Grand Siècle" depicted so frequently in contemporary French film? To answer this question we will explore the roles 17th-century culture plays in French identity through readings in history and literature and recent films focusing on 17th-century texts, personalities, or events. We will highlight both continuities and discontinuities between the 17th century and our own time. Readings by Corneille, Cyrano de Bergerac, Lafayette, Montesquieu, Molière, Pascal, Racine, Sévigné. 10 films. Two short papers, two oral presentations, a weekly blog, and a final project (paper or multimedia project). 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.
Spr FREN1040CS01 24399 MWF 10:00-10:50(03) (L. Seifert)

FREN 1130E. Le Poétique et le quotidien.
In this course on the relationship between the poetic and the ordinary, unremarkable or otherwise apparently “non-lyric” matters and textures of modern living, we will consider formal and conceptual innovations in French poetry through the last 100 years as it has responded to a changing world, and continually reimagined the place of poetry in it. After situating certain coordinates of our investigation in the early decades of the 20th century (Apollinaire, Cendrars, Char, technology, war, speed, time) we will read works by later and contemporary poets including Francis Ponge, Jacques Roubaud, Michelle Grangaud, Sabine Macher. Prerequisite: a course at the 600- or 700-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not take French at Brown. Taught in French.
Spr FREN1130ES01 24258 TTh 2:30-3:50(11) (T. Ravindranathan)

FREN 1140A. French Theory.
Something called both “French” and “theory” came ashore in the Anglo-American academic scene of the 1970s. Supposedly both inpenetrable and hegemonic, it was seen to reconstitute what was discussed in programs in literature and the social sciences, and how it was discussed. Today the shoreline of study in the humanities has been transformed, but French theory’s moment is presumed to have past. This course will trace that history through key French texts (read in translation) written between the 1960s and 1990s. Taught in English.
Fall FREN1140AS01 17050 TTh 2:30-3:50(03) (D. Willis)

FREN 1130P. La théorie féministe en France.
From Olympe de Gouges to the movement called #Balancetonporc (the French version of #MeToo), from the first-wave feminism to the queer third-wave feminism, from the debates on abortion to pornography, prostitution, and gender parity, this course will explore major texts in French and francophone feminist theory (Simone de Beauvoir, Monique Wittig, Luce Irigaray, Julia Kristeva, Hélène Cixous, Virginie Despentes, Sam Bourcier, Paul B. Preciado…). 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 FREN1130PS01 17294 T 4:00-6:30(09) (L. Odelo)

FREN 1410L. Sorcellerie et Renaissance: le sort de la sorcière.
An interdisciplinary exploration of witches and witchcraft in Renaissance France based on close analysis of primary texts-confessions from trials, iconography, literary texts, and witchcraft theory. Topics include the trial of Joan of Arc, the science of demons, skepticism, and the nature of belief. Readings in Montaigne, Mauss, among others. Enrollment limited to 20. Taught in French. Prerequisite: a course at the 6000- or 7000-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown.
Fall FREN1410LS01 24513 TTh 10:30-11:50(09) (V. Krause)

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 6000- or 7000-level or equivalent proficiency. Contact the instructor to verify your proficiency if you have not taken French at Brown.
Fall FREN1410TS01 15541 M 3:00-5:30(05) (V. Krause)

FREN 1410U. La France en guerre.
Analyzes the impact of warfare on France and its former colonies. Considers various types of violent conflict (wars of expansion and independence, the world wars, terrorism) while consulting diverse sources (literary, historical, journalistic, epistolary, filmic). Also addresses contemporary events relevant to the subject of this course and follows them as they unfold. Topics include: war and collective memory, virility and violence, extreme situations and crises of representation, resistance and collaboration, colonization and nationhood, jihadism. Taught 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 FREN1410US01 16998 TTh 1:00-2:20(08) (G. Schütz)

FREN 1410V. French-American (Dis)Connections: histoire, société, culture.
The relationship between France and the United States is one of paradoxes. Reaching back to the American and the French 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 since the late 18th century, and then concentrate on several moments and topics from the contemporary period, including the Iraq War, multiculturalism, gender and sexuality, popular culture, and “French theory.” Taught 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.
Spr FREN1410VS01 25662 M 3:00-5:30(13) (L. Seifert)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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; artistic and digital; your own photos, etc. Taught in French. Pre-requisites include FREN 0600 or FREN 0610 or FREN 0620. 
Spr FREN1510J S01 24515 MWF 11:00-11:50(04)  "To Be Arranged"

FREN 1510L. À nous deux la mode. A bird's eye view of the fashion world, this course will explore the birth and evolution of the French fashion industry (from the development of department stores to the birth and rise of Haute Couture), its impact on society and social change, as well as its relationship with art and advertising. Materials range from literary excerpts to journalistic texts, online resources, and films, and will include portraits of fashion designers, studies of iconic fashion pieces, descriptions of techniques and crafts, and analyses of fashion shows. Activities include presentations, discussion, essays, commentaries, and the creation of a trend book. In French. Fall FREN1510LS01 17048 MWF 11:00-11:50(16) (S. Ravillon)

FREN 1610C. Advanced Written French: Atelier d'écriture. An advanced course in (functional or creative) writing. The workshops range from practice in interpersonal communication (letters) to essays and various forms of narrative. Recommended to students returning from a study-abroad program, students with a native French background who lack formal training in writing, or post-FREN 1510 students. Exercises for each workshop plus a final writing project. Prerequisite: FREN 1510. Enrollment limited to 15. Instructor permission required. Taught in French. Fall FREN1610C S01 15894 MWF 2:00-2:50(07) (V. Krause)

FREN 1710H. Villes africaines. This course examines space, politics, and urban life in Francophone Africa from the 1960s to the 21st century. How has the African city changed since the colonial period? And how do writers, filmmakers, and artists imagine the African city’s global dimensions today? Our course will examine these and related questions as we study how cities in Francophone Africa reflect changing visions of art, politics, gender/sexuality, and literature. Taught 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. Spr FREN1710H S01 25663 TTh 1:00-2:20(08) (J. Izzo)

FREN 1710I. Politique, démocratie, et corruption en Afrique francophone. What do representations of democracy (its premises as well as its shortcomings) and corruption have to tell us about postcolonial and postmillenial politics in contemporary Francophone Sub-Saharan Africa? How have these interrelated problems and discourses been negotiated in French and African literature, film, journalism, and anthropology? This course will address these and related questions as we study how cities in Francophone Africa reflect changing visions of art, politics, gender/sexuality, and literature. Taught 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 FREN1710I S01 17047 MWF 1:00-1:50(06) (J. Izzo)

FREN 1900M. La question animale. This seminar studies representations of animals in French literature, visual arts, popular culture and critical thought through the 19th-21st centuries, attending to the intersections of cultural and historical contexts. We will consider the fates of animals as industrial modernity progressed (discussing in turn urban space, agriculture, the battlefield, zoos, science, meat, the beginnings of photography and cinema), and the important philosophical and ethical questions they raise. Authors include Renard, Michaux, Cixous, Roubaud, Pastoureau, Baratay, Philibert, de Fontenay, Derida, Bailly et Despret. Taught in French. Spr FREN1900M S01 25664 F 3:00-5:30(15) (T. Ravindranathan)

FREN 1970. Individual Independent Study. 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.

FREN 1990. Senior Thesis. 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 2110H. Savoirs et non-savoirs de la Renaissance. How were the lines between the known, the unknown, and the unknowable drawn for the Renaissance? This course examines the period's "will to know" underlying humanism, Natural Philosophy, and demonology (the "science of demons"). It also tracks challenges to positive knowledge through madness and the rediscovery of Greek scepticism. Readings in Erasmus, Marguerite de Navarre, Rabelais, Montaigne, and Foucault, among others. Taught in French. Spr FREN2110H S01 24619 W 3:00-5:30(10) (V. Krause)

FREN 2150F. Théâtres des Lumières. This course will study the diversity and modernity of the theater of the Enlightenment. During this Golden Age of French theater the stage became a major instrument for social and political critique. We will study the dissemination of French theatrical culture in the major cities of Europe and the Caribbean (with a particular focus on French and Creole theater in Saint-Domingue) and examine the major experiments, innovations and reforms (class and gender roles; new genres and new forms of popular entertainments). Readings will include plays performed on the three official stages (Comédie française, Comédie italienne and Opéra) as well as those operating on the margins of legality in street and market fairs. Conducted in French. Fall FREN2150F S01 15734 W 3:00-5:30(17) (O. Mostefai)

FREN 2190K. Roman et réel au XXIème siècle. Study of major authors, texts and trends in contemporary novel. Authors include Darrieussecq, NDiaye, Rolin, Carrère, Toussaint, Kristof, de Kerangal, Chevillard, Redonnet, Volodine. Critical perspectives from Rabaté (on spectrality and voice), Ruffel (post-Communism), Posthumus (ecocriticism), Rancière (the political), Westphal (geocriticism). Focus on formal and conceptual commitments by which post-millenial novels “think” our present, and what existing or newly imagined categories of analysis might be mobilized in reading them as experiments in the genre’s history. Taught in French. Fall FREN2190K S01 15759 F 3:00-5:30(11) (T. Ravindranathan)

FREN 2450. Exchange Scholar Program. Fall FREN2450 S01 15288 Arranged "To Be Arranged" Spr FREN2450 S01 24180 Arranged "To Be Arranged"

FREN 2600M. French Postcolonial Theory. This seminar will study major works in postcolonial theory from the French-speaking world. We will pay close attention to classic works from the anticolonial moment, asking how they resonate today, and to important new texts that recuperate and transform earlier modes of thought. We will also study innovative new secondary texts from history, anthropology, and literary criticism to ask how French postcolonial theory is embodied and debated in contemporary scholarship. Authors to be studied include Fanon, Mbembe, Glissant, Vergès. Taught in English. Spr FREN2600M S01 24394 Th 4:00-6:30(17) (J. Izzo)

FREN 2620J. Traduire dit-il. Translation is rarely, if ever, conceived of outside practice. And the practice of it, unlike the practice of literature except in specific instances, involves submitting to a complicated and implacable machinery of constraint. By means of readings about translation, and experience of it and in it, we will attempt to examine the broad sense of what gets “carried across” the spaces between one language and another. Taught in French. Fall FREN2620J S01 16082 Th 4:00-6:30(04) (D. Willis)
FREN 2970. Preliminary Examination Preparation.
For graduate students who have completed their course work and are preparing for a preliminary examination.
Fall FREN2970 S01 15289 Arranged "To Be Arranged"
Spr FREN2970 S01 24181 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.
Fall FREN2980 S01 15280 Arranged "To Be Arranged"
Spr FREN2980 S01 24182 Arranged "To Be Arranged"

FREN XLIST. Courses of Interest to French Concentrators.
Spring 2020
The following courses may be of interest to French concentrators. Please see the sponsoring department for the time and location of each course.
Comparative Literature
COLT 2720C Translation Seminar

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.
Fall GNSS0120 S01 16651 MWF 1:00-1:50(06) (D. Davis)

GNSS 1510. Transnational Sexualities.
The goal of this course is to explore the formation of both normative and non-normative sexualities within the intertwining of local, national and global social contexts. Using historical and cross-cultural research on gender and sexuality, the course will explore how social forces such as global capitalism, citizenship, nationalism, human rights, securitization, neoliberalism, settler colonialism, tourism, mass media and migration shape and produce desires, sexual identities, sexual labor, sexual practices, bodies and genders.
Spr GNSS1510 S01 26113 W 3:00-5:30(10) (A. Zengin)

GNSS 1520. Latin American Horror.
Latin American horror film is often overlooked within the world of film studies. This course will delve into the dark and intriguing world of the Latin American horror film genre. We will study Latin American horror cinema considering works across time periods, national contexts, and directors. This course will ask the following questions: How does the genre express individual and national anxieties in the cultural, social, political and economic realms? To what degree does horror film serve as a social barometer that explores, negotiates, and at times reifies social anxieties about difference, identity, sexuality, normativity, repression, technology, the environment, etc.?
Fall GNSS1520 S01 17044 W 3:00-5:30(17) (J. Lehnen)

The relationship between body and machinery, technology and biology is often thought in terms of the mechanical doll, the animated robot and other hybrid figures. Science fiction films for example offer double visions of the gendered body: women are masters/slaves of the technology and still symbolic bodies of biological surviving of the human species. We will explore mediated visions in films and other media of different kinds spanning a bridge between Sci-Fi-films and performance art. We will also study theoretical texts (Donna Haraway et al.) on the problem of the merging of technology and body.
Fall GNSS1720 S01 16650 T 4:00-6:30(09) (G. Koch)

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.

This course investigates the interrelation between pedagogy, sexuality, and violence. It seeks to investigate the classroom as a site of violent interaction and a potentially sexualized space. Appraising the erotic dimension of the production and transmission of knowledge, the course will critically trace a discourse of the utmost actuality and relevance: from campus rape culture, via the prominent question of consent, through current debates around Title IX, the connection between learning and sex marks a highly problematic dimension of our academic environments deserving of scholarly attentiveness and critical scrutiny.
Fall GNSS1961N-S01 17791 M 5:30-8:00PM(12) (D. Zechner)

Independent research under the direction of a faculty member, leading to a thesis. Required of honors candidates. Open to seniors only. Instructor permission required.

Independent research under the direction of a faculty member, leading to a thesis. Required of honors candidates. Open to seniors only. Instructor permission required.

GNSS 1990. Senior Seminar.
A research seminar focusing on the research and writing of the participants. Required of senior concentrators; open to other advanced students by permission.
Fall GNSS1990 S01 16652 M 3:00-5:30(05) (J. Lehnen)

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.
Spr GNSS2000 S01 25161 T 3:00-5:30(16) "To Be Arranged"

GNSS 2010M. The Question of Critique.
This course will explore the spaces and times of the work of critique. A return to the question is timely, for over the past two decades and in a broad range of disciplines we have witnessed what may be described as a sense of exhaustion or fatigue with “theory” and other forms of critical work. The course will ask what it means to speak of “limits” of critique: can critique be limited, and if so: how and why? It will also ask about the political impact and stakes of critique in our contemporary moment.
Fall GNSS2010M-S01 17045 W 10:00-12:30(14) (S. Stewart-Steinberg)

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). The goals are to increase appreciation and enjoyment of our natural surroundings and provide a better understanding of environmental problems, natural resources, land use, and geologic hazards. Four labs, plus a field trip. For nonscience concentrators. Prerequisites: 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.

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.

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 why volcanoes occur, and what volcanic lavas can tell us about the formation of sedimentary rocks. Major sedimentary environments in the oceans are examined, from El Niño to global warming. Three lectures, written exercises on oceanographic problems; two field trips to study estuarine and coastal processes.

GEOL 0160E. Volcanoes, Windows into the Deep Earth. Examines the physical and chemical principles controlling the generation of volcanoes and their different styles of eruption. Investigates where and why volcanoes occur, and what volcanic lavas can tell us about the composition and evolution of the Earth and other planets. Evaluates volcanic hazards and their environmental impacts and the economic benefits and cultural aspects of volcanism. Two-day field trip. Enrollment limited to 19 first year students.

GEOL 0240. Earth: Evolution of a Habitable Planet. 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.

GEOL 0350. Mathematical Methods of Fluid and Solid Geophysics and Geology. Intended for undergraduates concentrating in geological and physical sciences or engineering, especially those interested in the quantitative study of Earth. Problem sets will cover common approaches to quantify the dynamics and chemistry of solids and fluids in nature. Mathematical topics to be introduced include linear algebra, vectors and tensors, differential equations, dynamical systems, eigenvalues and eigenvectors, empirical orthogonal functions, fractals, chaos, and statistics. Applications include waves in the oceans, atmosphere, and solid earth, convective and conductive heat flow, reaction rates, gravitational potential energy, Newton's laws on a rotating planet, measuring coastlines and ranges, and dating errors in stratigraphy.

GEOL 0810. Planetary Geology. This introductory level course will examine the evolution of our Solar System and the geology of planetary bodies, including Mercury, Venus, the Moon, Mars, asteroids, and the moons of Jupiter and Saturn. We will discuss the origin of the Solar System from a geological perspective and explore how scientists combine observations from extraterrestrial samples such as meteorites with data returned by satellites and rovers to develop and test hypotheses related to planetary evolution. Emphasis will be on comparing geologic processes on these bodies to well-understood processes on Earth, results from past, current, and upcoming planetary missions, and the future of human and robotic exploration of space.

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.

GEOL 1120. Paleoceanography. An examination of the Cenozoic history of the world ocean with attention to the processes which have changed its circulation, climate, geometry, and biology. Develops a strategy to use marine sediments and microfossils to identify and understand past variations in the oceans. Class projects analyze and interpret various types of paleoceanographic data. Laboratory arranged. Offered alternate years.

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.

GEOL 1245. Air Pollution & Chemistry (ENVS 1245). Interested students must register for ENVS 1245.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
GEOL 1320. Introduction to Geographic Information Systems for Environmental Applications.
An introduction to basic geographic information system (GIS) concepts, and the utilization and application of geospatial data for analysis. Topics will include data structures and management, coordinate systems and projections, data creation, obtaining spatial data from outside sources, georeferencing and address-matching, model building and batch geoprocessing, and performing fundamental spatial analysis techniques such as overlay, extraction, and interpolation, viewsheds, and hot spot analysis among others. Concepts are presented via online videos (Canvas) and put into practice through weekly hands-on laboratory exercises utilizing the GIS software product ArcGIS 10.x and ArcGIS Pro (ESRI, Inc.). Two presentations by each student are required - a case study, and an original research project employing the methods learned. A public poster session on the original research project culminates the term. If unable to pre-register, a wait list will be used to fill openings on a first come, first serve basis. S/NC.

Fall GEOL1320 S01 17367 TTh 10:30-11:50(05) (L. Carlson)
Fall GEOL1320 S02 17368 TTh 1:00-2:20(05) (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. Spring GEOL1330 S01 24607 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 15483 TTh 9:00-10:20(02) (Y. Huang)

GEOL 1380. Environmental Stable Isotopes.
Introduction to the concepts, analytical methods, theory and environmental applications of stable H, O, C, N and S isotopes. Emphasis will be placed on theory and applications of light isotopes in paleoclimate studies, environmental hydrogeology and biogeochemistry. Prerequisites: CHEM 0100. GEOL 0220 or 0230 recommended, or instructor permission.

Spring GEOL1380 S01 25118 TTh 9:00-10:20(01) (Y. Huang)

GEOL 1410. Mineralogy.
Introduction to mineralogical processes on Earth’s surface and its interior. Topics include crystallography, crystal chemistry, nucleation, crystal growth, biomineralization, environmental mineralogy, and mantle mineralogy. Laboratory study devoted to optical identification of rock-forming minerals. Prerequisites: GEOL 0230, CHEM 0100 or 0330, or equivalent.

Fall GEOL1410 S01 15477 MWF 11:00-11:50(16) (R. Cooper)

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, basalt and layered intrusions, survey of lunar and planetary petrology. Prerequisites: GEOL 1410, or instructor permission.

Spring GEOL1420 S01 24612 MWF 1:00-1:50(06) (Y. Liang)

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 15484 TTh 2:30-3:50(03) (J. Lee)

GEOL 1510. Introduction to Atmospheric Dynamics.
The objective of GEOL1510 is to understand the fundamental physical principles that govern the motion of the atmosphere. Students will explore the dynamics of the atmosphere and the mathematical laws governing weather and climate. Topics include the fundamental equations of motion in rotating fluids, hydrostatic, geostrophic and thermal wind balance, and vorticity, as applied to phenomena, including sea breezes, planetary waves, midlatitude cyclones, fronts, and the global general circulation. The emphasis will be on physical interpretation of the equations but facility with vector calculus is critical. Enrollmen limited to 30.

Spring GEOL1510 S01 25099 MWF 10:00-10:50(03) (A. Lynch)

GEOL 1560. Global Tectonics.
Plate tectonic theory and the evolution of continents and the seafloor. Emphasis on the structure and tectonics of western U.S. considering geological, geophysical, and geochemical constraints as well as direct geodetic observations of plate motions from GPS measurements. Prerequisite: GEOL 0220 and 0230. Three or more of GEOL 0220, 0230, 1240, 1410, 1420, 1450 and 1610 are recommended.

Spring GEOL1560 S01 24611 TTh 1:00-2:20(08) (G. Hirsh)

GEOL 1605. Glaciers and Climate Change (ENVS 1605).
Interested students must register for ENVS 1605.

Fall GEOL1605 S01 17458 Arranged 'To Be Arranged'

GEOL 1610. Solid Earth Geophysics.
A survey of basic geophysical techniques for determining the structure and dynamics of Earth’s interior. Topics include: global structure from seismic waves; gravity, magnetic field, and shape of the Earth; thermal processes within the Earth; structure of continental and oceanic lithosphere. Recommended courses: GEOL 0220, PHYS 0470, APMA 0330. No prerequisites.

Fall GEOL1610 S01 15479 TTh 1:00-2:20(08) (C. Dalton)

GEOL 1615. The Environmental Policy Process.
The diminishing quantity and quality of the resources of the Earth carries profound implications for the fulfillment of human rights and aspirations. But even as we understand better the intrinsic interdependencies between humans and the environment, policy gridlock persists. Indeed, the findings of fundamental environmental science are regularly contested on political grounds. The purpose of this course is to learn how to apply knowledge to map the relevant policy context in environmental issues, and to develop the tools and approaches to address any problem of decision in the environmental arena more creatively, effectively, and responsibly.

Fall GEOL1615 S01 16943 M 3:00-5:30(05) (A. Lynch)

GEOL 1620. Continuum Physics of the Solid Earth.
Physics of the Earth with emphasis on fundamental physical principles and mathematical tools. Topics include application of: conductive and convective heat transfer to cooling of the Earth; potential theory to interpretation of gravity anomalies; solid mechanics to deformation of Earth’s lithosphere; fluid mechanics to flow in the Earth’s interior and in porous media. Recommended courses: GEOL 0220, APMA 0340; PHYS 0470 or ENGN 0510.

Spring GEOL1620 S01 25122 TTh 1:00-2:20(08) (C. Huber)

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 15372 TTh 9:00-10:20(02) (R. Miliken)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
GEOL 1820. Geophysical Fluid Dynamics: Waves and Mean Flows
Edition
Explores theories of the large-scale ocean and atmosphere, including quasigeostrophic, planetary geostrophic, and shallow water equations. Topics will vary to focus on features of the general circulation and climate system (e.g. thermocline, westward intensification, jet stream dynamics, polar vortex, meridional overturning circulations), instabilities and waves (e.g. gravity, Rossby, and Kelvin), or rotating stratified turbulence. May be repeated with permission of instructor. Pre-requisites: Pre-requisite: GEOL0350 or PHYS0720 or APMA 0340 and GEOL1510 or GEOL1520. Spr GEOL1820 S01 25102 MWF 9:00-9:50(02) (B. Fox-Kemper)

GEOL 1950H. Gravitational Fields and Data Analyses
The course will cover fundamental and cutting-edge methods applied to Earth and planetary gravity data acquired by spacecraft, aircraft, sea, and surface gravimeters. Students will learn and practice how to represent, analyze, manipulate, and interpret gravitational data. The course will also include topics on potential field theory, geomagnetic data, pattern recognition methods, Monte Carlo methods, and computer modeling techniques. Topics covered in this course provide a foundation for a wide variety of advanced data analysis, representation, and manipulation techniques that extend beyond Earth and planetary sciences. The following courses are recommended prerequisites (and/or permission of the Professor): MATH 0090, 0100, PHYS 0030, 0040 or 0050, 0060 or 0070; and, GEOL 0250 or previous programming experience in MATLAB or a high-level programming language (e.g., C, C++, Fortran, etc.). Fall GEOL1950H-S01 17810 TTh 10:30-11:50(13) (A. Evans)

GEOL 1950P. Special Topics in Geological Sciences: The Arctic.
This course blends principles of physical and social science with regional focus on the Arctic Ocean and northern areas of eight Arctic nations encircling the northern latitudes of the planet. The coming century will see substantial transformation of this region driven by warming climate, global demand for natural resources, demographic trends, new governance models, & other factors. The ability of northern societies to react to these phenomena is shaped by new legal frameworks. As a result, the northern region faces an array of challenges and opportunities ranging from species extinctions to increased viability of shipping lanes through the Arctic region. Fall GEOL1950PS01 17812 F 11:30-2:00(15) (L. Smith)

GEOL 1960H. The Early Earth.
Primary focus on evolution of the solid Earth (core, mantle, crust) but will also include discussion of the Archean hydrosphere, atmosphere and biosphere. Reading and discussing current literature, with lectures. Intended for graduate students and upper level undergraduates with advanced petrology and/or geophysics. Enrollment limited to 20. Fall GEOL1960H-S01 17652 TTh 10:30-11:50(13) (S. Parman)

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.

GEOL 2300. Mathematical and Computational Earth Sciences.
For graduate students interested in quantitative study of the Earth in geological, physical, or engineering sciences. Mathematical topics to be introduced include tensor analysis, asymptotic and perturbation analysis of differential equations, numerical integration of differential equations, basis functions and pattern recognition, fractals and multifractals, and statistics. Applications will vary by offering, but examples include: statistics of turbulence and earthquakes, advection-reaction-diffusion systems, boundary layers, development of shocks and singularities, climate change, carbon sensitivity, and dimensional reduction of geophysical data. Intensive review of introductory mathematical methods through leading discussions in a lower level class. Earth, fluid, or solid science background recommended. Fall GEOL2300 S01 16942 MW 4:00-5:20(05) (B. Fox-Kemper)

GEOL 2350. Quaternary Climatology Seminar.
Discussion of current problems in paleoclimatology and global climate change. Students analyze the primary literature, and do original analyses of their own on published data. Topics include: theories of ice ages, millennial-scale climate variability, the influence of greenhouse gases and radiative forcing on climate, and historical and future climate changes. Prerequisites: graduate student status; or GEOL 0240, 0310, and 1240; or instructor permission. Spr GEOL2350 S01 25116 Arranged (J. Russell)

GEOL 2450. Exchange Scholar Program.

GEOL 2630. Interpretation Theory in Geophysics.
Use basic statistical theory and its matrix algebra representation and modern approaches for the optimum design of experiments, constructing model solutions to measurements, and describing nonuniqueness in models, with particular emphasis on generalized linear-inverse techniques. Introduction to stochastic processes and prediction. Recommended courses: GEOL 1610; MATH 0290, 0520, or APMA 0330, 0340, and computer programming skills. Offered alternate years. Spr GEOL2630 S01 25120 MWF 2:00-2:50(07) (C. Dalton)

The goal of this course is to introduce students to our current understanding of how planetary systems form and evolve. We will focus on the physical theories describing how the structures of planetary systems develop and how planets, moons, and other heavenly bodies form. We will also consider the relationship between these theories and observations (astronomical, geophysical, geochemical) of the Solar System and extrasolar planetary systems. This will include some discussion how the Solar System fits into our understanding of the veritable menagerie of planetary systems. Spr GEOL2910FS01 24608 TTh 10:30-11:50(09) (B. Johnson)

GEOL 2910X. Special Topics in Geological Sciences: Interactions between Tectonics and Climate.
Examines connections between Earth’s long-term climate and plate tectonics and solid Earth. Reading and discussing scientific papers we’ll consider the various mechanisms by which tectonics can affect climate and by which climate may affect tectonics. Including volcanic degassing at mid-ocean ridges, subduction zones, large igneous provinces, and continental rifts; weathering of silicate rocks on continents and of sediment, basalt, and peridotite on the seafloor; regional metamorphism of carbonate rocks; effects on climate of changes in tectonic plate motions and configurations; possible effects of Milankovitch cycles on mantle melting; and implications of mantle viscosity and convection for sea-level rise and ice-sheets stability. Fall GEOL2910X-S01 17811 WF 10:30-11:50(16) (C. Dalton)

GEOL 2920C. The Sedimentary Rock Cycle of Mars and Earth.
This course consists of a mixture of instructor and student-led discussions on topics related to the sedimentary rock cycle on Mars as viewed through the lens of how we understand such processes on Earth. Topics: sediment transport and deposition, erosion processes and rates, lithification + diagenesis, water-rock interaction, and cyclicity in strata. Major goal: Assess how the sedimentary rock record of Mars can be used to understand changes in depositional processes and environmental conditions through time. Results from Mars satellite and rover data will be discussed, with an emphasis on fundamental processes as understood from detailed studies of Earth’s sedimentary rock record. Prerequisite: Undergraduate level sedimentology stratigraphy, or permission of instructor. Spr GEOL2920C S01 24606 Arranged (R. Milliken)

GEOL 2920D. Introduction to Geochemical Modeling.
Continuum descriptions of mass transfer in geochemical cycles. Topics include: fundamentals of diffusive and advective mass transfer, kinetics of weathering and early diagenesis, fluid flow in the Earth’s crust and mantle, trace elements and isotopes in magmatic processes. Recommended: CHEM 0330, GEOL 1610 and APMA 0330, 0340. Fall GEOL2920DC01 17558 TTh 1:00-2:20(08) (Y. Liang)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
GEOL 2920I. Special Topics: Dynamics of Tropical Climate and Ecosystem.
In this course, we will discuss two major themes: climate of tropics and how climate influences tropical ecosystem. Major topics include Hadley circulation, intraseasonal variation, tropical convection, carbon cycle, and biodiversity. We will also discuss how climate may influence tropical ecosystem and our society. This class is aimed at graduate students.
Students are expected to have some familiarity with differential equations and climate science. Advanced undergraduate students with a relevant background can also take this class.
Spr GEOL2920I S01 25101 Arranged (J. Lee)

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 residency requirement and are continuing research on a full time basis.
Fall GEOL2990 S01 15291 Arranged 'To Be Arranged'
Spr GEOL2990 S01 24183 Arranged 'To Be Arranged'

German Studies

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. An intensive, double-credit language course that meets five days a week for 9 hours and focuses on speaking, listening, reading and writing skills and the cultures of the German-speaking countries. 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.

Fall GRMN0100 S01 16300 MWF 9:00-9:50(09) (J. Fine)
Fall GRMN0100 S02 16301 T 12:00-12:50(09) (J. Fine)
Fall GRMN0100 S02 16301 MWF 11:00-11:50(09) (J. Fine)
Fall GRMN0100 S03 16301 T 12:00-12:50(09) (J. Fine)
Fall GRMN0100 S03 16302 T 12:00-12:50(09) (J. Fine)
Fall GRMN0100 S03 16302 T 12:00-12:50(09) (J. Fine)
Fall GRMN0100 S04 16303 T 12:00-12:50(09) (J. Fine)
Fall GRMN0100 S04 16303 MWF 1:00-1:50(09) (J. Fine)

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.

Fall GRMN0200 S01 24752 MWF 9:00-9:50(16) (J. Fine)
Spr GRMN0200 S01 24752 T 12:00-12:50(16) (J. Fine)
Spr GRMN0200 S02 24753 MWF 11:00-11:50(16) (J. Fine)
Spr GRMN0200 S02 24753 T 12:00-12:50(16) (J. Fine)
Spr GRMN0200 S03 24754 MWF 12:00-12:50(16) (J. Fine)
Spr GRMN0200 S03 24754 T 12:00-12:50(16) (J. Fine)

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 16304 MWF 10:00-10:50(09) (J. Sokolosky)
Fall GRMN0300 S01 16304 Th 12:00-12:50(09) (J. Sokolosky)
Fall GRMN0300 S02 16306 MWF 12:00-12:50(09) (J. Sokolosky)
Fall GRMN0300 S02 16306 MWF 1:00-1:50(09) (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.

Fall GRMN0400 S01 24755 MWF 10:00-10:50(12) (J. Fine)
Spr GRMN0400 S01 24755 Th 12:00-12:50(12) (J. Fine)
Spr GRMN0400 S02 24756 Th 12:00-12:50(12) (J. Fine)
Spr GRMN0400 S02 24756 MWF 1:00-1:50(12) (J. Fine)

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.

Fall GRMN0500F S01 16307 MWF 11:00-11:50(09) (R. Haubrich)
Fall GRMN0500FR S02 17433 MWF 9:00-9:50(09) (R. Haubrich)

GRMN 0600F. 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.

Spr GRMN0600FS01 24761 Th 10:30-11:50(09) (T. Kniesche)

GRMN 0750F. Historical Crime Fiction.
There is almost no time period that has not been covered by historical crime fiction. From ancient Egypt and Rome to 18th century China, historical crime fiction has complemented and contested our knowledge of history. In this seminar, we will do some extensive time travel and explore how crime fiction explores the past and challenges our understanding of bygone times. Readings of texts by Ellis Peters, Umberto Eco, Peter Tremayne, Lindsey Davis, Alan Gordon, Robert van Gulik, Laura Rowland, among others.

Fall GRMN0750FS01 16308 MWF 10:00-10:50(14) (T. Kniesche)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
GRMN 1200L. Show Trials: The Aesthetics of Law in Literature and Film.

J'accuse! Zola's public denunciation of the French President, accusing him of anti-Semitism and unlawful imprisonment, has become emblematic for theatrical politics and dramatized trials. Even though their outcomes were decided in advance, the performance of show trials – from the Dreyfus affair to the Auschwitz trials and the prosecution of Saddam Hussein – have been indispensable for the political formation of society. In this course, we will analyze the literary, cinematic, and philosophical reception of such performative trials, ranging from Kafka's Trial and Arendt's Eichmann in Jerusalem to Dreyer's The Passion of Joan of Arc and Kramer's Judgment at Nuremberg.

Fall GRMN1200L/S01 17717 MWF 2:00-2:50(07) (R. Haubrich)

GRMN 1200K. Languages of Seduction.

According to Genesis, languages of seduction can be traced back to Paradise. But where does seduction come from? Where does it lead the seducer and the seduced? This seminar will follow traces of seduction in Esopian fables; in Ulysses’ encounter with the sirens (Homer, Kafka); in Orpheus’ songs (Vergil, Rilke); in Sheherazaade; in excerpts from Casanova’s Story of My Life; in Kierkegaard’s Diary of a Seducer; and in the (seductive) suggestion from a song by Bob Dylan: “Don’t follow leaders, watch the parkin’ meters”. What would happen were you to follow such an advice, seduced by its charm? In English.

Spr GRMN1200L/S01 25518 TTh 1:00-2:20(08) (T. Schestag)

GRMN 1340W. Writing Revolution.

How is revolution articulated, recorded, and scripted? The word “revolution” implies a turning-again. Revolution, however, is also marked, from the French Revolution to the revolutionary movements of the twentieth century, by a rhetoric of cutting, interrupting, and disjointing. Turning to the tropes of the turn and the cut for orientation, among others, this seminar will examine the modes by which revolution is written from the eighteenth through the twentieth century. Readings include works by Rousseau, Kant, von Arnim, Hölderlin, Büchner, Marx, and Luxemburg. In English.

Spr GRMN1340W/S01 25519 W 3:00-5:30(10) (K. Mendicino)

GRMN 1340X. Literature and Multilingualism.

Has literature ever really been monolingual? Has it not always spoken with a split tongue and a fractured voice, enabling it to move in the interstices between languages, cultures, and identities? In this seminar, we examine some authors from the twentieth century for whom speaking is always speaking otherwise: speaking about the other, speaking as other, as something other than merely speaking. Our goal is to think beyond the ‘monolingual paradigm’ and come up with ways to describe the richness of linguistic multiplicity beyond the easy binaries of native vs foreign, self vs other. In English.

Spr GRMN1340X/S01 25721 MWF 12:00-12:50(05) (Z. Sng)

GRMN 1440S. Grims’ Fairy Tales.

"One doesn’t know the sorts of things one has in one’s house," says the servant girl in Kafka’s "A Country Doctor," as a stranger, who will soon act violently towards her, emerges on all fours from an unused sty. The servant girl in Kafka’s “A Country Doctor,” as a stranger, who will soon act violently towards her, emerges on all fours from an unused sty. They are in need of protection and driven by the desire to expand. What’s in a city? The seminar follows this question through the evocation of various cities and sites in texts by Hölderlin, Hebel, Heine, Stifter, Brecht and Benjamin; in photographs (of Paris) by Eugène Atget; in novels by Theodor Rehbock, Walter Ruttman (on Berlin), and Wim Wenders (Paris, Texas). Taught in German.

Fall GRMN1441S/S01 16927 TTh 10:30-11:50(13) (T. Schestag)

GRMN 1441G. Städtbilder.

Cities mark sites of humans gathering and dwelling as political animals, bound to language. But while cities confirm this Aristotelian definition of human beings, they also expose its vulnerability. Cities have to be founded and surrounded by walls. They are in need of protection and driven by the desire to expand. What’s in a city? The seminar follows this question through the evocation of various cities and sites in texts by Hölderlin, Hebel, Heine, Stifter, Brecht and Benjamin; in photographs (of Paris) by Eugène Atget; in novels by Theodor Rehbock, Walter Ruttman (on Berlin), and Wim Wenders (Paris, Texas). Taught in German.

Fall GRMN1661L/S01 16928 MW 12:00-12:50(15) (T. Knesche)

GRMN 1661L. The Promise of Being: Heidegger for Beginners (COLT 1610V).

Interested students must register for COLT 1610V.

Spr GRMN1661L/S01 25958 TTh - Arranged "To Be Arranged"

GRMN 1900P. Erinnerung in der deutschen Gegenwartsliteratur.

Erinnerung (memory, remembrance) is one of the big topics in contemporary German literature. Erinnerungsliteratur deals with the ramifications of highly problematic periods of nineteen- and twentieth German century, such as colonialism, the rise of Nazism, the Holocaust, or the communist dictatorship in former East Germany. Coming to terms with the past – one way or another – is the focus is texts by Günter Grass, W.G. Sebaldb, Uwe Timm, Marcel Beyer, Herta Müller, or Ulrike Draesner, to name just a few. Senior seminar. Taught in German.

Spr GRMN1900P/S01 25521 TTh 2:30-3:50(11) (T. Knesche)


Independent study on a particular topic related to German culture. In German or English. At the discretion of the instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

GrMN 1990. Senior Conference.

Special work or preparation of an honors thesis under the direction of a faculty member. Please check Banner for the correct section number and CRN to use when registering for this course.

GRMN 2450. Exchange Scholar Program.

Fall GRMN2450 S01 15294 Arranged "To Be Arranged"
Spr GRMN2450 S01 24186 Arranged "To Be Arranged"

GRMN 2661R. Poetry and Politics.

Poets have been accused, persecuted, exiled from the Polis. They have been killed. Their poems have been burned and their ashes dispersed. Why does poetry provoke these lethal affects? What is at stake in a poem for the proclaimed integrity of the political sphere? Texts read and discussed in this seminar include Sophocles (in Hölderlin’s translation), Cicero’s public defense of the poet Archias; Thoreau and Arendt (on Civil Disobedience); Roman Jakobson (The Generation That Squandered Its Poets); poems by Velimir Chlebnikov and Osip Mandelstam (in Celnál’s translations); and Georges Bataille (La haine de la poésie / L’Impossible). Taught in English.

Fall GRMN2661R/S01 16925 T 1:00-3:30(08) (T. Schestag)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
GRMN 2661S. What Was A Medium?
Scholars of literature, media, and aesthetics have weighed in from various viewpoints on the question “What is a medium?” This seminar takes a historical approach by examining how the medium and mediatity were imagined prior to the 20th century. We will look at the history of the question itself. What was the “medium” for classical antiquity and the 18th-century (two historical moments on which we will focus)? How did it emerge from discussions about moderation, mediocrity, or mediation? Discussions and readings in English; students also welcome to work with texts in the original.

Fall GRMN2661S01 17113 W 3:00-5:30(17) (Z. Sng)

Why does Kant problematize how we “orient” ourselves in thinking? Why does Hegel rebuke detractors of abstract thought? Why does Heidegger write that we are still not thinking? We will engage a carefully chosen series of exemplary essays whose lasting value derives from a rigorous interrogation not only of the subject matter at hand but also the very style of thinking critically and attentively. These essays (by Kant, Hegel, Freud, Benjamin, Heidegger, Adorno, Levinas, de Man, and Derrida), each a small masterpiece of modern thought, recast the question of critical style each time anew. Graduate students from diverse fields welcome.

Spr GRMN2661T01 25845 M 3:00-5:30(13) (G. Richter)

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.

Fall GRMN2970 S01 15295 Arranged ‘To Be Arranged’
Spr GRMN2970 S01 24187 Arranged ‘To Be Arranged’

GRMN 2980. Reading and Research.
Sections 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 residency requirement and are continuing research on a full time basis.

Fall GRMN2990 S01 15296 Arranged ‘To Be Arranged’
Spr GRMN2990 S01 24188 Arranged ‘To Be Arranged’

GRMN XLIST. Courses of Interest to Students Concentrating in German Studies.

Swedish

SWED 0100A. Beginning Swedish.
Swedish 0100 is an introduction to both Sweden and Swedish, covering various aspects of Swedish history, art and society, as well as screening at least three Swedish films per semester. The course packet contains the text/workbook, Mål 1, with additional materials. We will cover one chapter of Mål per week, with quizzes every three weeks. There will be a midterm and a final exam, along with a short take-home project. This is a small class, so your presence is absolutely required. Emphasis will be placed on speaking and understanding Swedish. Good will and good humor are required.

This is the first half of a year-long course (SWED 0100A and SWED 0200A) whose first semester grade is temporary. Neither semester may be elected independently without special written permission. The final grade at the end of the course work in SWED 0200A covers the entire year and is recorded as the final grade for both semesters.

Fall SWED0100A/S01 17059 TTh 4:00-5:30(10) (A. Weinstein)

SWED 0200A. Beginning Swedish.
Swedish 200 is a continuation of Swedish 100, with the same goals, materials and methods. It may also be suited to students with some prior background in Swedish.

This is the second half of a year-long course (SWED 0100A and SWED 0200A) whose first semester grade is temporary. Neither semester may be elected independently without special written permission. The final grade at the end of the course work in SWED 0200A covers the entire year and is recorded as the final grade for both semesters.

Spr SWED0200A/S01 25667 TTh 4:00-5:30(17) (A. Weinstein)

Hispanic Studies

HISP 0100. Basic Spanish.
This fast-paced beginning course provides a solid foundation in the development of communicative skills in Spanish (speaking, listening comprehension, reading and writing) as well as some insight on the cultures of the Spanish-speaking world. Individual work outside of class prepares students for in-class activities focused on authentic communication. Placement: students who have never taken Spanish before, or have scored below 390 in SAT II, or below 240 in the Brown Placement Exam. Students who have taken Spanish before and those with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 15; 12 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.

Fall HISP0100 S01 16186 MW 9:00-9:50(09) (S. Sobral)
Fall HISP0100 S01 16186 TTh 9:00-10:20(09) (S. Sobral)
Fall HISP0100 S02 16187 MW 10:00-10:50(09) (S. Sobral)
Fall HISP0100 S02 16187 TTh 10:30-11:50(09) (S. Sobral)
Fall HISP0100 S03 16188 MW 1:00-1:50(09) (S. Sobral)
Fall HISP0100 S03 16188 TTh 1:00-2:20(09) (S. Sobral)
Fall HISP0100 S04 16189 TTh 1:00-2:20(09) (S. Sobral)
Fall HISP0100 S04 16189 MW 2:00-2:50(09) (S. Sobral)

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 15; 12 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.

Spr HISP0110 S01 24642 MTWThF 1:00-2:50(08) (N. Schuhmacher)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 15; 12 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.

Fall HISP0200 S01 16190 MW 10:00-10:50(14) (N. Schuhmacher)
Fall HISP0200 S01 16190 MW 10:00-10:50(14) (N. Schuhmacher)
Fall HISP0200 S02 16192 MW 10:00-10:50(09) (N. Schuhmacher)
Fall HISP0200 S02 16192 MW 10:00-10:50(09) (N. Schuhmacher)
Fall HISP0200 S03 16193 MW 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0200 S03 16193 MW 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0200 S03 16193 TTh 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0200 S03 16193 TTh 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0200 S04 16194 MW 1:00-2:20(09) (N. Schuhmacher)
Fall HISP0200 S04 16194 MW 1:00-2:20(09) (N. Schuhmacher)
Spr HISP0200 S01 24643 TTh 10:00-10:50(16) (N. Schuhmacher)
Spr HISP0200 S01 24643 TTh 10:00-10:50(16) (N. Schuhmacher)
Spr HISP0200 S02 24644 TTh 10:00-10:50(16) (N. Schuhmacher)
Spr HISP0200 S02 24644 TTh 10:00-10:50(16) (N. Schuhmacher)
Spr HISP0200 S03 24645 MW 1:00-2:20(16) (N. Schuhmacher)
Spr HISP0200 S03 24645 MW 1:00-2:20(16) (N. Schuhmacher)
Spr HISP0200 S03 24645 TTh 1:00-2:20(16) (N. Schuhmacher)
Spr HISP0200 S03 24645 TTh 1:00-2:20(16) (N. Schuhmacher)
Spr HISP0200 S04 24646 TTh 1:00-2:20(16) (N. Schuhmacher)
Spr HISP0200 S04 24646 TTh 1:00-2:20(16) (N. Schuhmacher)
Spr HISP0200 S04 24646 MW 2:00-2:50(16) (N. Schuhmacher)

HISP 0300. Intermediate Spanish I.
This course continues to develop and strengthen students' proficiency in the Spanish language, as well as to help them increase their cultural understanding. It seeks to develop both fluency and accuracy and to teach students to express, interpret, and negotiate meaning in context. Through the exploration of themes such as the individual and the community, health issues, travel, 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 15; 12 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.

Fall HISP0300 S01 16191 MW 9:00-9:50(09) (N. Schuhmacher)
Fall HISP0300 S01 16191 TTh 9:00-10:20(09) (N. Schuhmacher)
Fall HISP0300 S02 16192 MW 10:00-10:50(09) (N. Schuhmacher)
Fall HISP0300 S02 16192 TTh 10:30-11:50(09) (N. Schuhmacher)
Fall HISP0300 S03 16193 MW 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0300 S03 16193 TTh 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0300 S03 16193 TTh 12:00-12:50(09) (N. Schuhmacher)
Fall HISP0300 S04 16194 MW 1:00-2:20(09) (N. Schuhmacher)
Fall HISP0300 S04 16194 TTh 1:00-2:20(09) (N. Schuhmacher)
Spr HISP0300 S01 24648 MW 10:00-10:50(16) (V. Smith)
Spr HISP0300 S01 24648 TTh 10:30-11:50(16) (V. Smith)
Spr HISP0300 S01 24648 TTh 10:30-11:50(16) (V. Smith)
Spr HISP0300 S02 24649 TTh 9:00-10:20(16) (V. Smith)
Spr HISP0300 S02 24649 MW 12:00-12:50(16) (V. Smith)

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 15; 12 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.

Fall HISP0400 S01 16195 MW 10:00-10:50(14) (E. Gomez Garcia)
Fall HISP0400 S01 16195 TTh 10:30-11:50(14) (E. Gomez Garcia)
Spr HISP0400 S01 24650 MW 9:00-9:50(12) (V. Smith)
Spr HISP0400 S01 24650 TTh 9:00-10:20(12) (V. Smith)
Spr HISP0400 S02 24651 MW 10:00-10:50(12) (V. Smith)
Spr HISP0400 S02 24651 TTh 10:30-11:50(12) (V. Smith)
Spr HISP0400 S03 24652 MW 12:00-12:50(12) (V. Smith)
Spr HISP0400 S03 24652 TTh 1:00-2:20(12) (V. Smith)
Spr HISP0400 S04 24653 MW 1:00-1:50(12) (V. Smith)
Spr HISP0400 S04 24653 TTh 1:00-2:20(12) (V. Smith)

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 0600. Students who complete 0490A successfully can continue in our program with HISP 0500 as the next level. This is an intermediate level language course so if you have taken a 600 course or above, you will be too advanced for this 400 level class.

Fall HISP0490A S01 16196 MWF 12:00-12:50(15) (J. Kuhnheim)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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: HISP 0400 or placement: SAT II scores between 600 and 660, Brown Placement Exam scores between 491 and 570, or AP score of 4 in language or literature. Please check Hispanic Studies website (Undergraduate Programs) for course descriptions and placement information. Enrollment limited to 15; 12 spaces are available for students during pre-registration. Pre-enrolled students are expected to engage in close reading and discussion of texts, as well as to revise their papers. Prerequisite: HISP 0500 or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above.

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: SATII 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 15. 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. Students with scores of 750 and above on the SAT II, 551 on the Brown Placement Exam, or 5 in AP Literature should consider offerings in the HISP 0730-0740-0750 range.

HISP 0710B. Hispanic Culture Through Cinema.
This course will examine eleven cinematic works of the contemporary Hispanic world (Argentina, Chile, Mexico, Spain, and the USA) from 1999 until 2012. We will focus on the cultural, thematic, technical and aesthetic aspects of the films, as well as on their socio-historical and political contexts. Every movie will be discussed in class integrating sociological, historical, political, and aesthetic contexts, as well as a critical analysis of the film as artistic expression. This is a course also designed to improve students' speaking abilities while learning about Hispanic cultures and cinema.

HISP 0710C. Introducción a la lingüística hispánica.
This course introduces students to the study of language and deepens their knowledge of Spanish in its main linguistic components. After briefly considering the nature of language, we will study the sounds of Spanish (phonology and phonetics), word and sentence structure (morphology and syntax), and the elements and mechanics to express and interpret meaning (semantics and pragmatics). We will then turn our focus to linguistic phenomena such as changes in Spanish over time (historical linguistics), variations in the language according to region and social group (sociolinguistics), and bilingualism, with special attention to Spanish in the U.S.

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/community services? What factors shape how a text is translated (e.g., purpose, intended audience, type and genre, intercultural differences)? What is the role of translation in advancing language competence and proficiency? Through a functionalist approach, students advance their mastery of Spanish and develop translation competence. In addition to academic work (readings, translation assignments, and in-class exercises), students 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 0500, or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above.

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.

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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
HISP 0750O. Cultural Studies in Spanish America.
This is a culture class, taught in Spanish, in which we will explore the origins and meanings of the terms "culture" and "cultural studies," a particular approach to culture, as it is manifested in a Spanish American context. This critical approach crosses conventional disciplinary boundaries and so will we, examining a variety of texts, phenomena, and themes that extend traditional concepts of "culture." Topics considered will include: sports—fútbol and lucha libre—music in literature, melodrama and the telenovela, manifestations of Indian and mestizo identities in the late 20th-21st centuries, tourism, and contemporary urban existence.
Fall HISP07500 S01 16659 MWF 9:00-9:50(01) (L. Estrada Orozco)

HISP 0750T. Around Latin America in 80 Days: An Historical and Cultural Journey (LACA 0500).
Interested students must register for LACA 0500.
Fall HISP0750T S01 17638 Arranged "To Be Arranged"

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.
Fall HISP0760 S01 17665 TTh 9:00-10:20(02) (L. Estrada Orozco)

HISP 1020A. Spanish Civil War in Literature and the Visual Arts.
The Spanish Civil War (1936-39) would culminate with the military overthrow of the Republican government and the beginning of Francisco Franco's long dictatorship. This course examines artistic representations of the war, from film (documentary and fictional), through painting (Picasso), to the written works of both Spanish and foreign authors including Orwell, Hemingway, Neruda, Cela, Sender, Rodoreda. Readings and discussion in English.
Spr HISP1020A S01 25170 MWF 2:00-2:50(07) "To Be Arranged"

HISP 1210F. History of the Spanish Language.
Introduction to the genealogy and development of the Spanish language. Includes the historical and cultural events that deeply influenced the shaping of the language, the nature of Medieval Spanish, and the development of the language beyond the Iberian Peninsula, especially in the Americas. This course will make the history of Spanish accessible to anyone with a knowledge of Spanish and a readiness to grasp basic linguistic concepts.
Fall HISP1210F S01 16369 TTh 1:00-2:00(08) (M. Vaquero)

In the early modern period, clothing and fabrics were meant to provide visible markers of social status, gender, religion, race, and nationality. Yet dress did not just so much reflect identity as construct it. It could blur visible markers of social status, gender, religion, race, and nationality. This course will trace the connections between fashion and fiction in a period of unprecedented change in Spain and the wider Hispanic world. In Spanish.
Fall HISP1240A S01 16374 TTh 10:30-11:50(13) (L. Bass)

HISP 1330T. El amor en español.
This course will visit a series of famous, colorful and controversial couples (novios, esposos y amantes) from the literature and history of Spain and Latin America. We will consider such themes as courtly love, erotic love, commonplaces about love and distortions of them, the degradation of idealized love, and the renunciation of human love in favor of divine love in the medieval and Renaissance periods. We will also address contemporary rites of passage in the formation of couples, traditional and modern views of love and marriage, as well as the "death of the couple," love and melancholy, melodrama and hysteria.
Spr HISP1330T S01 24874 Th 4:00-6:30(17) (M. Vaquero)

HISP 1330U. Hauntings: Gothic Fictions, Banditry and the Supernatural in Latin America.
A specter haunts Latin America. The constitution of the nation-state in the region after the Wars of Independence (1810-1830) entailed creating fictions to include (and, naturally, exclude) those who belonged to the community of the nation. Usually the left-outs were the ones who did not comply with the profile of the desired citizen:lettered, male, white and urban. This course will focus on narrations about those 'left-outs' after the constitution of the Nation-States in the region. We will read fictions about mad monk women, spectral slaves, bloodthirsty bandits, priests-turned-sorcerers, dwarfs, animal rebellions, and many other exceptions to the norm." In Spanish.
Spr HISP1330U S01 25432 MWF 9:00-9:50(02) (F. Martinez-Pinzon)

Throughout history, conquest and colonization have implied different kinds of appropriations: control over new lands, new bodies, new languages. With the appropriation of new languages came the confrontation between different ways of organizing the world and, in particular, alternative ways of understanding humankind's relationship to nature. This course explores the scientific literatures that emerged in the wake of Spanish conquest and colonization of the Americas (1500-1800). These hybrid scientific literatures, written in Spanish but also in Nahua, Maya, Quechua and graphic forms, illustrate the lasting cross-pollination between Old and New World notions about American nature.
Spr HISP1330X S01 24741 MWF 1:00-1:50(06) (I. Montero)

HISP 1330Z. Tropical Fictions: Geography and Literature in Latin American Culture.
Tropical nature in Latin America has been represented in conflicting ways: a place of leisure and sensuality, but also of depravity and sloth; a place of infinite riches but also a space where disease and racial degeneration thrive. Tracing the variations and endurance of these tropes in 18th- to 21st-century Western consciousness, this course aims to re-think the tropics in literature, film, and the arts from a vantage point different to that of temperate-climate European civilization. Readings include canonical fictions such as La vorágine (1924), 19th-century European travelogues from the region, as well as contemporary indigenous art.
Fall HISP1330Z S01 16779 TTh 2:30-3:50(03) (F. Martinez-Pinzon)

HISP 1331E. Visions and Voices of Indigenous Mexico.
"In Mexico we are all mixed" goes a popular dictum, placing mestizaje at the core of what it means to be Mexican. One fifth of the population, however, self identifies as indigenous (pueblos originarios), and keeps experiencing various forms of discrimination for not abiding by the dominant national discourse. HISP 1331E explores three pillars of indigenous identity -land's gifts, material culture and language- to inquire how indigeneity has been deployed and reclaimed by indigenous groups through time. Materials include pre-Hispanic and Colonial codices, murals and objects, and present day literary works, music and cinema, with one hour of Nahuali basics per week.
Fall HISP1331E S01 17237 MWF 1:00-1:50(06) (I. Montero)

HISP 1331F. Museum Fictions.
Museums: monuments to national pride or international pillage? Sites for exhibition or for exoticism? Anchored in the past or for the present? This course looks at the way that museums have been imagined and practiced in Spain and Latin America: spaces for art and anthropology, materials and memories, collections and encounters. We will explore poetry inspired by artworks and by museums; stories that take place in museums; films that show us the behind-the-scenes of institutions; theory that asks what is the point of a museum. Sometimes, we might even create some of our own.
Spr HISP1331F S01 25259 TTh 2:30-3:50(11) (M. Clayton)

HISP 1331G. Latin American Horror (GNSS 1520).
Interested students must register for GNSS 1520.
Fall HISP1331G S01 17163 Arranged "To Be Arranged"

HISP 1331H. Latin American Environmental Humanities (LACA 1504G).
Interested students must register for LACA 1504G.
Spr HISP1331H S01 26222 Arranged "To Be Arranged"
**HISP 1370Y. Literature and Film of the Cuban Revolution.**
Cuba’s revolution of 1959 gained extraordinary visibility internationally, motivating images of bearded rebels, jubilant crowds and middle-class flight. Yet even as the Cuban Revolution became an object of representation abroad, it guided the domestic production of new forms of literature and cinema. Over the course of the semester, we will trace the relationship between fiction and film, and between art and the revolutionary project, from 1959 to the present day.

Spr HISP1370Y S01 24871 TTh 1:00-2:20(08) (E. Whitfield)

**HISP 1371E. Cómo ser modernxs en América Latina.**
This course zooms in on three moments when Latin American poetry explicitly posed the question of how to be modern. We begin with a study of modernismo, the turn-of-the-century movement which inscribed Latin American poetry in the world while declaring literary independence. We next move to continent-wide avant-garde currents of the 1920s which installed poetry at the heart of discussions about modernity and modernism, in and across the arts. Finally, we explore experiments from the 1960s and 1970s which connected poetry to broader questions of politics and society, without abandoning experiments in lyric form.

Spr HISP1371E S01 25257 TTh 10:30-11:50(09) (M. Clayton)

**HISP 1371F. Narrating the Borderlands: Literature, Legality, and Solidarity.**
This course explores multiple issues concerning crossing, living, and narrating the United States-Mexico border. We will focus on the border as a legal space bound to interpretations about what it means to migrate legally or illegally across that territory. We will explore the border as a vast and uneven expanse that entails diverse and often contradictory narrations and imaginations that range from idealized landscapes to apocalyptic wastelands. Finally, we will discuss how border-crossing is a theme for artists and writers working on the solidarity networks from those who have dealt with the journey and its perils.

Spr HISP1371F S01 26164 MWF 12:00-12:50(05) (G. Quintero Lozano)

**HISP 1371G. Traveling Latin America.**
This course examines the ways in which Latin America was lived, traveled, and configured by an array of different figures across the twentieth century and into the twenty-first. We will explore narratives and poetry by writers from and about various parts of the continent; road-movies that take us traveling its length and breadth; accounts by visiting artists, dancers, musicians, and writers; artistic configurations that turn European imaginings on their head. Readings will range from the minimal (poems, graphic arts, artfacts) through the mid-range (movies) to the monumental (Julio Cortázar’s Rayuela, Valeria Luiselli’s Last Children Archive).

Spr HISP1371G S01 26214 TTh 2:30-3:50(11) (M. Clayton)

**HISP 1500L. Theory and Practice of Translation.**
The objectives of the course are to give students a firm grounding in the theory of translation studies as well as extensive experience in the practice of literary translation, working closely with several canonical Spanish texts as well as texts of the student’s choice. Throughout the course of the semester, students will also be called upon to reflect actively on their experience as translators, and dialogue on this experience with their peers. This course is structured as a workshop, with students sharing their work – both translations and reading reflections – and collaborating with their peers.

Spr HISP1500L S01 26109 M 3:00-5:30(13) (S. Thomas)

**HISP 1500M. Queer Aesthetics and Intimacies in español.**
This course asks what connections can be drawn among ‘queer’ texts across time, place, and different genres of writing and forms of artistic expression in Spanish, Latin American, and US Latino cultures. By looking to literary texts and cultural objects from the 20th to 21st centuries, this course considers how non-normative sex and gender function within spaces beset by colonial, racist, and nationalist legacies and how queerness imagines being within and without these structures. Readings and discussion will be in Spanish with an option to write papers in English for non-concentrators or concentrating students fulfilling one of their English-language courses.

Spr HISP1500M S01 26282 MWF 2:00-2:50(07) (I. Russell)

**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 Juan José Arreola, Eduardo Halfon, Juan Carlos Onetti, Juan José Saer and Mario Vargas Llosa.

Spr HISP1700B S01 25169 MWF 12:00-12:50(05) ‘To Be Arranged’

**HISP 1980. Independent Study.**
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**HISP 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.

**HISP 2030I. Books of Love.**
Discourses of love animated the vernacular literary masterworks of Juan Ruíz (c.1283-c.1350) and Geoffrey Chaucer (c.1342-1400), near-contemporaries who became celebrated canonical authors in Spain and England, respectively. This course considers their writings comparatively, in literary and historical context. Readings include Le Roman de la rose; Ruiz’s El Libro de buen amor; Chaucer’s Troilus and Criseyde (with instruction in Middle English). Qualified, advanced undergraduates will be admitted by instructor permission only.

Spr HISP2030I S01 25737 M 3:00-5:30(13) (M. Vaquero)

**HISP 2160N. Antiquity and Innovation in the Hispanic Renaissance.**
The artistic and literary florescence of the Siglo de Oro paralleled a broader current of cultural innovation, which extended beyond Iberian Spain to other parts of Europe and the Americas – a movement which can be conceived as a Hispanic Renaissance. After an introductory overview, the seminar will highlight four major tendencies, through close examination of some foundational authors and texts. The course will be organised thematically, but texts will generally be approached in chronological sequence, beginning with Antonio de Nebrija’s investigations in the 1490s and ending with Carlos de Sigüenza y Góngora’s showcasing of New Spain’s complex legacies.

Fall HISP2160N S01 16886 Th 4:00-6:30(04) (A. Laird)

**HISP 2350P. Teoría Literaria: la literatura Transatlántica.**
Dedicado a la teoría del texto transatlántico, en este seminario trabajaremos sobre la historia intelectual de la interculturalidad Atlántica. A partir de los modelos, contactos, apropiación, debate y dialogismo que entre Europa y América Latina configuran un sistema literario, nos detendremos en la construcción del Sujeto, la Representación y la Lectura. Estudiaremos a Guzmán Poma de Ayala y Garcilaso de la Vega, la saga de Calán, los modelos de la formación nacional en Martí y Sarmiento, y la genealogía de la mezcla como la diferencia moderna de la producción cultural latinoamericana. En español.

Spr HISP2350P S01 24872 W 3:00-5:30(10) (J. Ortega)

**HISP 2350X. Literatures of Work and the Work of Literature in Latin America.**
This seminar investigates the ways in which labor has been represented in Latin American literature from Independence until the mid-20th century. We will explore the representations of different agro-export tropical booms in fiction —tobacco, rubber and bananas— in order to understand how work determined the ways in which populations and landscapes were imagined into being. Finally, this seminar will incorporate fictions of labor that appear more difficult to control and as such are rendered as gothic: vagrancy and banditry. Seminar readings and discussion will be held in Spanish.

Fall HISP2350X S01 16371 W 3:00-5:30(17) (F. Martinez-Pinzon)

**HISP 2450. Exchange Scholar Program.**

**HISP 2520I. Sor Juana Inés de la Cruz in Her Literary Context.**
Intensive study of Sor Juana’s major writings in a variety of genres; comparisons with other writers of her extended literary milieu.

Fall HISP2520I S01 16367 F 3:00-5:30(11) (S. Merrim)
HISP 2520R. Radical Borders.
This course considers Mexico from a transnational perspective in order to explore the aesthetic and political dimensions of its northern and southern borders. We will examine the question of migration from and to Mexico in novels, poems, and theoretical materials from countries such as El Salvador, Honduras, and the United States. The objective is to conceptualize the notion of border not only as a space of surveillance and law enforcement but also as an arena for radical politics and revolutionary ideals. We will read texts by Horacio Castellanos Moya, Alaide Foppa, Yuri Herrera, Subcomandante Marcos, and Sayak Valencia among others.

Fall 2021
HISP2520R S01 16739 T 4:00-6:30(09) (G. Quintero Lozano)

HISP 2620Q. Gender and the Body in Modern Spain.
This course explores Spanish cultural production from 1850- the present, using gender and the body as axes of analysis. It analyzes representations of gender roles and norms, as well as their subversion and critique, in a variety of works, including novels, films, visual culture, and essays. Interrogating the social and cultural production of gendered bodies and how these are represented in modern cultural forms, it examines topics such as: the development of feminism and persistence of machismo; relationships between gender, politics, and violence; biopolitics and medical discourse; the emergence of current debates regarding rape culture and toxic masculinity, among others.

Fall 2021
HISP2620Q S01 25255 T 4:00-6:30(17) (S. Thomas)

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

Fall 2021
HISP2970 S01 15301 Arranged "To Be Arranged"
Spr 2021
HISP2970 S01 24192 Arranged "To Be Arranged"

HISP 2980. Research in Spanish and Latin American Literature.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HISP 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.

Fall 2021
HISP2990 S01 15302 Arranged "To Be Arranged"
Spr 2021
HISP2990 S01 24193 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.

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 2021
HIST0150A S01 16019 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 2021
HIST0150C S01 16016 TTh 2:30-3:50(03) (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 2021
HIST0150D S01 25634 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 2021
HIST0150F S01 24669 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 comestibles and medicines have been discovered, mixed, transformed, distributed, and how those processes have changed us.

Fall 2021
HIST0150H S01 15989 TTh 1:00-2:20(08) (H. Cook)

The modern world is often seen as a triumph of liberal enlightenment thought, scientific discovery, and economic progress. But it is also a product of settler colonialism, imperial expansion, and massive waves of population displacement that reorganized human societies along racialized and capitalist modes of inclusion and exclusion. This course seeks to understand the making of our current world from the conquest of the “Americas” and the slave trade to industrialization and climate change. It also considers lessons from the struggles by native, enslaved, colonized, and displaced populations for a more just, peaceful, and greener future.

Spr 2021
HIST0150I S01 24742 TTh 9:00-10:20(01) (B. Doumani)

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 2021
HIST0202 S01 16001 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 nationalists led and exerted widespread influence on 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.

Spr 2021
HIST0203 S01 24848 TTh 1:00-2:20(08) (J. Johnson)
HIST 0233. Colonial Latin America.
Colonial Latin America, from Columbus’s voyage in 1492 to independence in the nineteenth century, was the creation of three peoples: Europeans, Native Americans, and Africans. Spanish and Portuguese conquerors brought with them the world of the Crusades, the Inquisition, and the Renaissance. Native Americans lived there already, in rich empires and hunter-gatherer bands. Africans came as slaves from Senegal, Nigeria, Congo and Angola, bringing old traditions and creating new ones. These diverse peoples blended together to form a new people. This was a place of violence, slavery and oppression -- but also of art, faith, new societies, new ideas.
Spring 2023
01 24853  TTh 10:30-11:50(09) (J. Mumford)

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.
Spring 2023
01 25339  MWF 11:00-11:50(04) (D. Rodriguez)

HIST 0244. Understanding the Middle East: 1800s to the Present.
This course is an introduction to the history of the modern Middle East from the mid-19th C to the present. Readings and topics are structured chronologically, and emphasize the key events and turning points in the political and economic history of the region. The goal of the course is to understand how the Middle East is, as it is today, has been shaped by the events of the past.
Fall 2022
02 16257  TTh 2:30-3:50(03) (S. Mitter)

This course uses the American Civil War of 1861-1865 to investigate current issues relevant to current domestic and global affairs: the use of history in popular memory and popular culture (focusing on the Civil War in public art and film); the role of law in the prosecution and resolution of war; international law, especially as it applies to war and human rights. The course is aimed at students interested in history, law, and international relations. There are no prerequisites—the course is accessible to students at all levels--but some knowledge of U.S. history might be useful.
Fall 2022
01 16035  MWF 10:00-11:00(06) (M. Vorenberg)

HIST 0253A. Colonial America: A Global History.
Colonial America was more than just the original 13 colonies that later became the United States. Those North American colonies were perched on the edge of a wide and vast world of trade, commerce, and migration that extended into the Caribbean, South America, Africa, and into the Pacific and Indian Oceans. Native Americans, Africans, Spanish, Dutch, French, Portuguese, and Asians were all an important part of this world. Join us on an exploration using primary and secondary sources, videos, and objects that reveal the globalized world of early America. Course is open to all students; there are no prerequisites.
Spring 2023
01 24672  MWF 12:00-12:50(05) (L. Fisher)

HIST 0257. Modern American History: New and Different Perspectives.
Rather than a survey, this course uses specific episodes and events to reveal different modes of analysis. Examples of questions are: What do gender perspectives tell us about men on the frontier and women in dance halls? What is the importance of baseball to American culture? How do a historian and a lawyer differ in their analysis of a sensational crime case? How can we understand why the U.S. dropped two atomic bombs on Japan? How did scandals in television and popular music signal an end to American innocence? How has the Baby Boom generation altered American society? And more.
Spring 2023
01 24664  TTh 9:00-10:20(01) (H. Chudacoff)

HIST 0285A. Modern Genocide and Other Crimes against Humanity.
This lecture course explores genocide and other crimes against humanity across the world during the 20th century. We will discuss the origins of modern genocide in the transition to modernity and subsequent conceptualizations of this phenomenon; review examples of colonial, imperial, racial, communist, anti-communist, and post-colonial genocides; discuss war crimes and other mass crimes perpetrated by authoritarian regimes; and consider policies of mass deportation and ethnic cleansing. This course will conclude with a discussion of attempts by the international community to prevent and punish genocide along with various ways in which genocide has been commemorated or denied.
Spring 2023
01 26071  MWF 9:00-9:50(02) (To Be Arranged)

HIST 0522G. An Empire and Republic: The Dutch Golden Age.
Between about 1580 and 1690, a new nation emerged in Europe that became a bastion of liberty, ideas in ferment, fine art, military power, science and technology, and global economic reach: the Dutch Republic. A nation that thought of itself as peaceful, yet was constantly at war; as Protestant, yet was composed of people of many faiths; as personally aspirational, yet derived much wealth from the conquest and slavery of others. Its people and institutional arrangements greatly influenced Britain and America on their paths to power, too. Its rise and eclipse may be instructive. Enrollment limited to 19 first-year students.
Fall 2023
01 15988  Th 4:00-5:30(04) (H. Cook)

HIST 0523M. History of Fascism.
What is fascism—both in theory and in practice—and what remains of it a century after the establishment of the first fascist regime in Italy? This course will explore the social, cultural, and intellectual origins of fascism, the rise of fascist movements in Europe in the early to mid-20th century, the politics and policies of fascist parties and regimes—including Germany, Italy, Iberia, in the Balkans, and in the Baltic States—and transnational links to the Americas, Asia, and Africa. This course will conclude with considerations of anti-fascism in the postwar world as well as the legacies of fascism in contemporary far right politics.
Spring 2023
01 26208  W 3:00-5:30(10) (To Be Arranged)

HIST 0523P. The First World War.
On the eve of the First World War, many Europeans cheered for a “war to end all wars.” It achieved nothing of the like, instead inaugurating a century of war and unthinkable destruction. This seminar explores the history of the first truly global conflict, examining its origins, its course, its aftermath, and how it might help us better understand our own world today. A broad set of primary sources, from soldiers’ diaries to rationing cards, artwork, and diplomatic cables, forms the basis for discussion. Designed as an introduction to historical inquiry and writing.
Fall 2023
01 16256  F 3:00-5:30(11) (B. Hein)

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, antiwar. Civil War. Frequent short writing assignments and research investigations allow students to explore in depth the writings of Lincoln’s 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.
Fall 2023
01 16034  W 3:00-5:30(17) (M. Vorenberg)

HIST 0556A. Sport in American History.
This course covers the relationship of sports to aspects of American culture since 1900. Topics include gender, race, amateurism, professionalism, intercollegiate athletics, and sports heroes. Enrollment limited to 19 first-year students.
Fall 2023
01 15886  M 3:00-5:30(05) (H. Chudacoff)
HIST 0557C. Narratives of Slavery. This course will uncover the history of the slave trade, the labor regimes of slavery in the Caribbean and North America, and the rise of the Cotton Kingdom through the voices of the very people who lived through it: enslaved people themselves. We will read slave narratives, court documents, abolitionist treatises, oral histories of formerly enslaved people, and fictional accounts produced in the period. We will give special attention the ways that different kinds of historical sources-different types of narratives-shape what we know and how we know it in the history of slavery.

Fall HIST0557C S01 16013 M 3:00-5:30(05) (E. Owens)

HIST 0580M. The Age of Revolutions, 1760-1824. In the middle of the eighteenth century, the Americas belonged to a handful of European monarchies; within a few decades, most of the Americas was composed of independent republics, some of the European monarchs were either deposed or quaking on their thrones. Usually considered separately, revolutions in British North America, France, Saint-Domingue (Haiti) and Spanish America had diverse local circumstances yet composed a single cycle of intellectual ferment, imperial reform, accelerating violence and, forging of new political communities. We will examine revolutions that helped create the world we live in. Enrollment limited to 19 first year students. P

Fall HIST0580M S01 16006 M 3:00-5:30(05) (J. Mumford)

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.

Spr HIST0654A S01 25626 W 3:00-5:30(10) (R. Self)

HIST 0656A. History of Intercollegiate Athletics. The United States is the only country in the world in which practically every institution of higher education finances and promotes high-caliber athletics. How did this phenomenon happen? Has there ever been any resistance to its happening? How and when did African Americans integrate college sports? Did Title IX really open up opportunities for women in college sports? Are sports the “front door” of colleges and universities? This course examines these and other questions as it examines the interrelationship between the histories of sports and higher education in the U.S.

Spr HIST0656A S01 24723 TTh 1:00-2:20(08) (H. Chudacoff)

HIST 0704E. Autobiography of the Civil Rights Movement (AFRI 0110C). Interested students must register for AFRI 0110C.

Fall HIST0704E S01 17341 Arranged “To Be Arranged”

HIST 0940L. Difficult Relations? Judaism and Christianity from the Middle Ages Until the Present (JUDS 0050M). Interested students must register for JUDS 0050M.

Fall HIST0940L S01 17270 Arranged “To Be Arranged”

HIST 0980M. Brazilian Democracy in Literature and History (POBS 0711). Interested students must register for POBS 0711.

Fall HIST0980M S01 17517 Arranged “To Be Arranged”

HIST 1030. Entangled South Africa. 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 24846 MWF 1:00-1:50(06) (N. Jacobs)

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 16003 TTh 9:00-10:20(02) (J. Johnson)

HIST 1120. At China's Edges. What does it mean to live on the borders of a rising world power? This course introduces the modern histories of such places as Hong Kong; Macau; Taiwan; Manchuria; Sichuan; Yunnan; and Xinjiang by investigating their commonalities and differences. Themes include: ecology and identity; comparative colonialisms and experiences of decolonization; war and border regions; nation building, citizenship, and the “art of not being governed.” Students will have an opportunity to research additional sites (e.g. Mongolia, Tibet) using frameworks introduced in class discussions.

Fall HIST1120 S01 16357 MWF 12:00-12:50(15) (R. Nedostup)

HIST 1141. Japan in the Age of the Samurai. This course is for students interested in exploring Japan’s remarkable cultural, political and social transformations during the Age of the Samurai, which began in the late 12th century and came to a close in the mid-19th century. Lectures, readings and films will explore how the emergence of new forms of military expertise and technologies led to the creation of warrior-led “tent governments,” that first co-existed with and eventually supplanted the structures of power centered on Kyoto and the Imperial Court. Open to all students. P

Fall HIST1141 S01 16356 MWF 11:00-11:50(16) (K. Smith)

HIST 1200C. History of Greece: From Alexander the Great to the Roman Conquest. In 334 BCE, the 22-year-old Alexander crossed over to Asia and North Africa perhaps already in his own mind to conquer the known world, thus changing the history of the West forever. The values of a small, if intensely introspective, people (the Greeks) became the cultural veneer for much of the West, as the period became known as the Hellenistic (“Greekish”) Age. It led to the spread of a monothetic idea, a profound belief in individualism, alienation from central power, and yet, conversely, the creation of national law and human rights, along with a deep desire for universalism. P

Fall HIST1200C S01 16031 TTh 1:00-2:20(08) (K. Sacks)

HIST 1210A. The Viking Age. For two centuries, Viking marauders struck terror into hearts of European Christians. Feared as raiders, Norsemen were also traders and explorers who maintained a network of connections stretching from North America to Baghdad and who developed a complex civilization that was deeply concerned with power and its abuses, the role of law in society, and the corrosive power of violence. This class examines the tensions and transformations within Norse society between AD 750 and 1100 and how people living in the Viking world sought to devise solutions to the challenges that confronted them as their world expanded and changed.

P Spr HIST1210A S01 24666 MWF 11:00-11:50(04) (J. Conant)

HIST 1216. The Paradox of Early Modern Europe. European social, intellectual, political, and economic history from the 15th to the 18th centuries, with an eye to the paradox embodied in the term “early modern.” On the one hand, this is supposedly the heroic era of Columbus, Machiavelli, Newton, and Montesquieu, when Europeans became increasingly global, urban, and critical. On the other hand, this period also saw the rise of judicial torture, new regimes of discipline, colonialism, and a robust belief in the unseen world of demons, angels, and witches. We will explore the interplay of these paradoxical forces in Europe’s transformation from medieval into modern.

P Spr HIST1216 S01 25370 TTh 10:30-11:50(09) (T. Nummedal)
HIST 1230B. Modern European Intellectual and Cultural History: The Fin de Siècle, 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 siècle. 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.

Fall HIST1230B S01 15995 MWF 1:00-1:50(06)  (M. Gluck)

HIST 1241A. Migration in European History.
From the “Germanic” people’s migrations of antiquity to the global refugee crises of today, migration has left an indelible mark on European society. What are the causes and consequences of periods of “mass” migration? Surveying major episodes in recent European migration history, this lecture course explores how human mobility has historically shaped culture, politics, economics, and society on this continent. Special attention will be given to the 19th century, an exceptional chapter in global migration history that saw more than 50 million Europeans departing for the Americas.

Spr HIST1241A S01 24844 MWF 1:00-1:50(06)  (B. Hein)

HIST 1241B. Understanding the Body in Medieval and Early Modern Europe.
In medieval Europe, the body was both a site of sin and the grounds where sin might find redemption in penance or prayer. The health of the medieval body was implicated by the health of the soul (and vice versa). In early modern Europe, the body shed some of its sacred meanings as it became an object of professionalized medical discourse. We trace this “disenchantment” of the body by examining concepts of sickness and health, the roles of gender and racial differences in understanding the nature of the body, and the changing social practices regarding human bodies and mortal remains.

Fall HIST1241B S01 17681 TTh 6:40-8:00PM(10)  (A. Ayanna)

HIST 1268A. The Rise of the Russian Empire.
This course provides a broad survey of Russian history from Kievian Rus’ to the Crimean War. Topics include the rise of Moscow, the Time of Troubles, the reforms of Peter the Great and Catherine the Great, the Napoleonic Wars, and the conservative regn of Nicholas I. The following themes are emphasized in the lectures and readings: the changing stratification of society; the expansion of the Russian empire; Russia and the West (including diplomatic and cultural relations); economic development; and the origins and growth of the Russian intelligentsia and radical opposition to the autocracy.

Fall HIST1268A S01 16015 MWF 10:00-10:50(14)  (E. Pollock)

HIST 1268B. Russia in the Era of Reforms, Revolutions, and World Wars.
This course examines the rapid industrialization, modernization, and urbanization of Russia from the era of the “Great Reforms” (1860s) through the Second World War. We will examine both the growing discontentment among the population with autocracy’s efforts to maintain power and the Bolshevik effort to recreate the economy, society, and everyday life. Topics will include Russian Marxism and socialism, terrorism, the Russian revolutions of 1917, the rise and consolidation of Soviet socialism, famine, the red terror, and World War II.

Spr HIST1268B S01 25732 MWF 10:00-10:50(03)  (E. Pollock)

HIST 1272E. Paris: Sacred and Profane, Imagined and Real.
Paris has been called the capital of modernity, the capital of the nineteenth century, and the capital of the black Atlantic. This course explores how Paris grew from a small settlement into a vast city with an enormous global impact. Covering the settlement of the Celtic Parisii in the mid-third century BCE through the present, the course investigates the dynamic relationship between urban space, public activism, racism, and colonialism. It also considers who has been excluded from the city’s complex mythology and how these myths impacted experiences of the “other” (including people of color, low-income people, Jewish people, and women).

Fall HIST1272E S01 17854 MWF 2:00-2:50(07)  “To Be Arranged”

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.

Fall HIST1310 S01 15997 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 reenactments. 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 16005 TTh 10:30-11:50(13)  (J. Lambe)

HIST 1331. The Rise and Fall of the Aztecs: Mexico, 1300-1600.
This course will chart the evolution of the Mexica (better known as the Aztecs) from nomads to the dominant people of central Mexico; examine their political, cultural, and religious practices (including human sacrifice); explore the structure and limitations of their empire; and analyze their defeat by Spanish conquistadors and their response to European colonization. We will draw upon a variety of pre- and post-conquest sources, treating the Aztecs as a case study in the challenges of ethnohistory.

Fall HIST1331 S01 15991 MWF 12:00-12:50(15)  (R. Cope)

HIST 1333. The Mexican Revolution.
To study the Mexican Revolution is to examine the sweeping history of Modern Mexico: from the Liberal reforms of Benito Juárez to the enduring power of the Partido Revolucionario Institucional (PRI); from peasant revolutionary Emiliano Zapata to his namesake Zapotistas of Chiapas; from Pancho Villa’s mass revolutionary army to transnational mystic Tereisita Urrea; from the landlord Francisco Madero who led the insurgency to Lázaro Cárdenas who enacted land and labor reforms; from the constant flows of migrants crossing the border back and forth to Mexico’s defiance against Trump’s wall.

Fall HIST1333 S01 16000 TTh 6:40-8:00PM(10)  (E. Hu-Dehart)

HIST 1340. History of the Andes from Incas to Evo Morales.
Before the Spanish invaded in the 1530s, western South America was the scene of the largest state the New World had ever known, Tawantinsuyu, the Inca empire. During almost 300 years of colonial rule, the Andean provinces were shared by the “Republic of Spaniards” and the “Republic of Indians” - two separate societies, one dominating and exploiting the other. Today the region remains in many ways colonial, as Quechua- and Aymara-speaking villagers face a Spanish-speaking state, as well as an ever-more-integrated world market, the pressures of neoliberal reform from international banks, and the melting of the Andean glaciers.

Fall HIST1340 S01 16752 TTh 9:00-10:20(02)  (J. Mumford)

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 16027 TTh 10:30-11:50(13)  (D. Rodriguez)

For up-to-date course information please visit Courses@Brown.edu (https://cabs.brown.edu).
HIST 1430. Truth on Trial: Justice in Italy, 1400-1800. Why do we think that one human being can judge another? How did this activity, enshrined in legal and political systems, profoundly shape society? This course examines the changing face of justice, from the medieval ordeal to judicial torture; the expansion of inquisitorial and state law courts; and the eventual disillusionment with the use of torture and the death penalty in the eighteenth century. Using Italy as a focus, the course explores how law courts defined social, political, scientific, and religious truth in Italy. Students may pursue a project of another geographical area for their final project for the course. P
Spr HIST1430 S01 26153 TTh 2:30-3:50(11) (C. Castiglione)

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 16033 TTh 1:00-2:20(08) (M. Toksoz)

HIST 1502. The Early Republic. This course explores the politics and culture of the United States between the ratification of the Constitution in 1789 and the financial crisis of the late 1830s. The establishment of the federal government still left crucial questions unresolved: the characteristics of national identity, the boundaries of citizenship, the legitimacy of slavery, and the tense relationship between capitalism, colonialism, and democracy. Relying on primary sources and secondary scholarship, the course will revisit familiar debates over warfare, sovereignty, and public policy, while also introducing students to a wide range of critical voices seeking to fulfill the idealistic possibilities of the American Revolution. Spr HIST1502 S01 25693 TTh 10:30-11:50(09) (S. Rockman)

HIST 1505. Making America Modern. This course surveys a crucial period in American history between the end of Reconstruction and the beginning of World War I. During this time, the United States transitioned from a relatively fragmented, traditional, and largely agricultural society into one that was remarkably diverse, increasingly urban, and highly industrialized. In surveying this important transitional period, we will pay particular attention to far-reaching changes in the nation’s business and economic life, its social movements, as well as its cultural developments, all with an eye to understanding how the United States became one of the world’s most commanding economic, political, and cultural powers. Spr HIST1505 S01 25617 MWF 2:00-2:50(07) (L. Rieppl)

HIST 1515. American Slavery. This lecture course will address the history of slavery in America. We will trace the emergence of slavery in the New World, with a heavy emphasis on slavery in the U.S. South, and a focus on the relationship of slavery to the emergence of systems of racial and gendered power. The course is broad in scope, beginning with the emergence of the slave trade and concluding with a look forward to the ways that the history of slavery continues to impact the way race and gender (as well as sexuality and class) structure our lives today. Spr HIST1515 S01 25892 MWF 10:00-10:50(03) (E. Owens)

HIST 1550. American Urban History, 1600-1870. Both a survey covering urbanization in America from colonial times to the present, and a specialized focus exploring American history from an urban frame of reference. Examines the premodern, “walking” city from 1600-1870. Includes such topics as cities in the Revolution and Civil War, the development of urban services, westward expansion, and social structure. P
Fall HIST1550 S01 15987 MW 8:30-9:50(01) (H. Chudacoff)

HIST 1570. American Legal and Constitutional History. History of American law and constitutions from European settlement to the end of the 20th century. Not a comprehensive survey but a study of specific issues or episodes connecting law and history, including witchcraft trials, slavery, contests over Native American lands, delineations of race and gender, regulation of morals and the economy, and the construction of privacy. Spr HIST1570 S01 25633 MWF 12:00-12:50(05) (M. Vorenberg)

HIST 1571. The Intellectual History of Black Women. This course will introduce students to the intellectual productions and theoretical traditions of African American women. Focused on the canonical texts of African American women, this class gestures toward diaspora as well. Moving chronologically from the history of slavery to the present will require that we simultaneously confront the question of what counts as “intellectual” history. Thus even as we will read the written words of black feminists across time, we will also call into question what Barbara Christian calls “the race for theory,” turning also to resistance practices, material culture, and bodily performance as sites of black feminist theorization. Fall HIST1571 S01 16014 MWF 10:00-10:50(14) (E. Owens)

HIST 1620. Resisting Empire: Gandhi and the Making of Modern South Asia. Gandhi’s India tracks the emergence and transformations of British colonial rule in the Indian subcontinent, the insurgencies 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 16037 TTh 9:00-10:20(02) (V. Zamindar)

HIST 1820B. Environmental History of East Asia. This is a lecture course on the environmental history of East Asia from prehistory to the present aimed at students with no background in either Asian or environmental history. Because little has been written about Korean or Vietnamese environmental history, it will mostly concern China and Japan, for which there are good textbooks. The course will also incorporate weekly primary source readings, or analysis of artifacts. Spr HIST1820B S01 25661 TTh 2:30-3:50(11) (B. Lander)

HIST 1825F. Nature, Knowledge, Power in Renaissance Europe. This course examines the creation and circulation of scientific knowledge in Renaissance Europe, ca. 1450-1600. We will explore the practices, materials, and ideas not just of astronomers and natural philosophers, but also of healers, botanists, astrologers, alchemists, and artisans. How did social, political, economic, and artistic developments during this period reshape how naturalists proposed to learn about, collect, manipulate, and commercialize nature? We will also consider the ways in which colonial projects forced Europeans to engage with other “ways of knowing” and rethink classical knowledge systems. P
Fall HIST1825F S01 16012 MWF 11:00-11:50(16) (T. Nummedal)

HIST 1825H. Science, Medicine and Technology in the 17th Century. This course examines the development of science and related fields in the period sometimes called ’the scientific revolution’. It will both introduce the student to what happened, and ask some questions about causes and effects. The new science is often associated with figures like Harvey, Galileo, Descartes, Boyle, Leeuwenhoek, and Newton. But it is also associated with new ways of assessing nature that are mingled with commerce. The question of the relationship between developments in Europe and elsewhere is therefore also explored. P
Spr HIST1825H S01 24667 MWF 1:00-2:00(07) (H. Cook)
HIST 1825M. Science at the Crossroads.
This course will look closely at the dramatic developments that fundamentally challenged Western Science between 1859 and the advent of the Second World War in the 1930s. Its primary focus will be on a variety of texts written in an effort to understand and interpret the meanings of fundamentally new ideas including from the biological side—evolutionary theory, genetic theory, and eugenics; from the physical side relativity theory, and quantum mechanics. The class should be equally accessible to students whose primary interests lie in the sciences and those who work in the humanities.
Fall HIST1825M S01 16535 MWF 1:00-1:50(06) (L. Riepe)

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 25367 MW 3:00-4:20(10) (J. Lambe)

HIST 1931J. The Long Fall of the Roman Empire (CLAS 1205).
Interested students must register for CLAS 1205.
Fall HIST1931J S01 17340 Arranged 'To Be Arranged'

HIST 1952A. World of Walden Pond: Transcendentalism as a Social and Intellectual Movement.
This course examines the 19th century phenomenon of Transcendentalism: this country’s most romanticized religious, philosophical, and literary movement. Focusing especially on Emerson, Thoreau, and Fuller, we’ll examine the ideas of the Transcendentalists in the age of reform and evaluate the application of their principles to abolition, feminism, and nature. The central problem which they wrestled with will be the focus, too, of our investigations: the tension between individualism and conformity.
Spr HIST1952A S01 25648 W 3:00-5:30(10) (K. Sacks)

This seminar takes the life and work of Mohandas Karamchand Gandhi, better known as Mahatma Gandhi, as a starting point to think through the history of civil disobedience in anti-imperialist and anti-oppression struggles, reading Gandhi’s own writings, alongside those of many others (like Thoreau, Tolstoy, Ambedkar, Abdul Ghaffar Khan, Martin Luther King and Nelson Mandela, amongst others), to look at debates and actions that can hone our own ability to make social and political change.
Fall HIST1954G S01 17219 W 3:00-5:30(17) (V. Zamindar)

Philosopher George Santayana famously warned that “Those who cannot remember the past are condemned to repeat it.” Ten years later, industrialist Henry Ford perhaps even more famously dismissed that notion: “History is more or less bunk.” What we mean by history and how we construct and use it are essential questions in all societies. Thinking Historically explores how we view and employ the past. The course examines major ways of interpreting the past through a survey of historians and methods and studies how history is produced, used, and misused, by professionals as well as by the public.
Fall HIST1956A S01 16030 Th 4:00-6:30(04) (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.
Fall HIST1956B S01 16211 Th 4:00-6:30(04) (R. Nedostup)

HIST 1956E. How and Why We Talk About the Past: Theory and Method in History.
This is a class about historical method and theory. Among other topics, we examine the problem of testable, falsifiable and accumulating historical knowledge; how the internet is changing both research methods and the presentation of knowledge; the ways that big subjects such as revolution and slavery are deployed for global vs national histories; the relationship of local history and the history of every-day activities to “larger” historical agendas; and how human population genetics is re-writing history. We read different kinds of historical prose, including books by several Brown historians, alongside fiction, including children’s picturebooks.
Spr HIST1956E S01 25846 M 3:00-5:30(13) (J. Mumford)

This course focuses on non-normative genders and sexualities in the Hispanophone world from the pre-colonial to the present period. It pays particular attention to affects, desires, and subjectivities captured in the historical testimonies of gender and sexual non-conformists. From the life of ‘The Nun Lieutenant’ Catalina de Erauso or the 1901 lesbian marriage of Elisa and Marcela, to recent LatinX queer diasporas in the United States, we will discuss the historical tensions among Catholic morality, taxonomic and empiricist projects originated in the early modern era, and the embodied and emotional experiences of gender and sexual non-conformists.
Fall HIST1958A S01 17857 T 4:00-6:30(08) (J. Fernandez Galeano)

This course focuses on the francophone Maghrib (Morocco, Algeria, Tunisia) and offers an introduction to major themes in the history of Africa and the Arab world in the nineteenth and twentieth centuries. Students will gain the tools to analyze and historicize the dynamic history of this region. We will examine a range of topics, including the transformations of pre-colonial social, economic and cultural patterns, conquest and resistance, comparative histories of colonialism, nationalism, decolonization and revolution, the consolidation of postcolonial states, regional cooperation, the rise of Islamism and civil conflicts, and the Arab Spring.
Spr HIST1960S S01 24847 Th 4:00-6:30(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.
Fall HIST1961C S01 15984 M 3:00-5:30(05) (C. Brokaw)

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

Brown University
Cross-dressing knights, virgin saints, homopohobic priests, and mystics who speak in the language of erotic desire are but some of the medieval people considered in this seminar. This course examines how conceptions of sin, sanctity, and sexuality in the High Middle Ages intersected with structures of power in this period. While the seminar primarily focuses on Christian culture, it also considers Muslim and Jewish experience. Enrollment limited to 20. P
Spr HIST1963Q S01 25613 M 3:00-5:30(13) (A. Remensnyder)

HIST 1964S. Islands of the Mind.
Islands command an outsized place in history and imagination. They can drive politics and economies, inspire worldviews and fantasy, and impel movements of people. The power of islands has been brought to life in narratives about fictional figures like Sinbad, Odysseus, and Robinson Crusoe, and it has shaped the experience of many peoples, including premodern Pacific Ocean indigenous navigators and contemporary migrants in the Mediterranean. Using sources ranging from ancient epics and medieval books of islands to contemporary fiction and film, this seminar combines history and literary arts to explore the diverse meanings and roles islands have had for centuries.
Fall HIST1964S S01 16929 M 3:00-5:30(05) (A. Remensnyder)

HIST 1965D. The USSR and the Cold War.
This seminar will examine in detail the Soviet Union’s involvement in the Cold War, the defining international conflict between the end of the Second World War and the collapse of communism in Europe. Topics include cultural phenomena, economic organizations, and ideology, in addition to diplomatic crises and the indirect military confrontations in Asian, Africa, and the Americas. Enrollment limited to 20.
Spr HIST1965D S01 26263 M 3:00-5:30(13) (E. Pollock)

HIST 1965H. Europe and the Invention of Race.
This upper-level seminar in European intellectual history will examine key texts from the 16th through the 20th century in which the negotiation of difference and diversity produced and questioned the organization of populations into groups and hierarchies called races. How does “race thinking,” with its spectrum from racism to critical race thinking, channel and direct phenomena such as European global expansions, capitalism and slavery, religious difference and secularization, colonialism, imperialism, and fascism.
Spr HIST1965H S01 26117 Th 4:00-6:30(17) (M. Steinberg)

HIST 1965L. Industrial Revolution in Europe.
Europe’s industrial revolution is often cited among the key drivers of global inequality between “the West and the Rest.” But industrialization unfolded unevenly everywhere, including within Europe itself. Using a local perspective on a global story, this seminar explores how the industrial revolution unfolded differently and unevenly across the diverse communities, regions, and landscapes of Europe during the long 19th century. Major themes include the urban-rural divide; technology and deindustrialization; the culture of work; faith and politics; socialism, populism, and antisemitism.
Spr HIST1965L S01 24843 Th 4:00-6:30(17) (B. Hein)

HIST 1966Q. Colonial Encounters and the Creation of Latin America.
This seminar examines how interactions between Europeans and indigenous peoples shaped the formation of early Latin America. From Florida to Brazil, invasion led to widely varied outcomes, including outright failures. Students will come to see colonization as a difficult, uneven process, as Europeans struggled to comprehend and engage unfamiliar natural and human environments; the new societies that emerged reflected complex transatlantic exchanges. Our readings will consist of primary sources from the sixteenth century, supplemented by academic texts. Students will write a series of three-page response papers, along with a ten to twelve-page essay on major themes from the course. P
Fall HIST1966Q S01 16791 M 3:00-5:30(05) (R. Cope)

In January 1959, the forces of rebel leader Fidel Castro entered Havana and forever altered the destiny of their nation and world. We will examine the question of political hegemony and the many silences built into the achievement of Revolution—from race to sexuality to culture—even as we acknowledge that popular support for that Revolution has often been both genuine and heartfelt. It is this counterpoint between the Revolution’s successes in the social, economic, and political spheres and its equally patent exclusions that have shaped Cuba’s history in the past and will continue to guide its path to an uncertain future.
Fall HIST1967C S01 16004 Th 4:00-6:30(04) (J. Lambe)

HIST 1967E. In the Shadow of Revolution: Mexico Since 1940.
This course traces political, social, and economic developments in Mexico since the consolidation of the revolutionary regime in the 1930s. The topics addressed include: the post World War II economic “miracle”; the rise of new social movements; the Tlatelolco massacre; the deepening crisis of the PRI (the governing party) in the 1980s and 1990s; the Zapatista rebellion; violence and migration on the northern border; and the war against narcotraficantes.
Spr HIST1967E S01 24668 M 3:00-5:30(13) (R. Cope)

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 competing 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.
Fall HIST1968A S01 15993 W 3:00-5:30(17) (B. Doumani)

This advanced undergraduate seminar seeks to provide a deeper understanding of the links between the region now known as Israel and Palestine and the peoples that have inhabited it or have made it into part of their material, mythical, and religious landscape throughout history. The course will be interdisciplinary at its very core, engaging the perspectives of historians, geologists, geographers, sociologists, scholars of religion and the arts, politics and media. At the very heart of the seminar is the question: What makes for the bond between groups and place - real or imagined, tangible or ephemeral. No prerequisites required.
Fall HIST1969A S01 15983 W 3:00-5:30(17) (O. Bartov)

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 Israeli-Palestinian conflict; the Iranian revolution; the Lebanese civil war; 9/11 and the Iraq invasion; and the Arab Spring).
Spr HIST1969C S01 24851 M 3:00-5:30(13) (S. Mitter)

HIST 1969D. Palestine versus the Palestinians.
This course explores alternatives to the common view that the Palestinian-Israeli conflict is a struggle between two nationalist movements over the same land. Moving away from state-centric political discourse, it engages the questions of imperialism, settler-colonialism, and displacement from a bottom-up perspective of everyday life of Palestinian communities in historic Palestine and the Diaspora. How do these internally divided and spatially fragmented communities negotiate the present and imagine the future? Ultimately, the course asks: What does it mean to be a Palestinian? And what can the Palestinian condition teach us about the modern world?
Spr HIST1969D S01 24670 Th 4:00-6:30(17) (B. Doumani)
This seminar examines the major themes and events in the history of the Middle East in the 20th century through a close reading of literary texts and, in some cases, films. Throughout the course we will try to locate the perspectives of the “ordinary people” of the region, and will pay special attention to the voices of those who are rarely heard from in discourses on the Middle East: religious minorities, sexual minorities, women, children, but also criminals, misfits, misanthropes and others who have been deemed social outcasts.
Spr HIST1969F S01 24852 Th 4:00-6:30(17) (S. Mitter)

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.
Spr HIST1970F S01 25341 W 3:00-5:30(10) (S. Rockman)

HIST 1971D. From Emancipation to Obama.
This course develops a deep reading knowledge of significant issues and themes that define African American experiences in the 20th century, experiences that begin with the years following Emancipation and culminates with the election of President Obama. Themes include citizenship, gender, labor, politics, and culture. The goal is to develop critical analytical skills and historiographical depth. Some background in twentieth century United States history is preferred but not required. Assignments include weekly reading responses, class participation and presentation, and two written papers. Enrollment limited to 20.
Spr HIST1971D S01 24674 M 3:00-5:30(13) (F. Hamlin)

HIST 1972G. Lesbian Memoir.
This course will introduce students to the intellectual productions and theoretical traditions of African American women. Focused on the canonical texts of African American women, this class gestures toward diaspora as well. Moving chronologically from the history of slavery to the present will require that we simultaneously confront the question of whatcounts as “intellectual” history. Thus even as we will read the written words of black feminists across time, we will also call into question what Barbara Christian calls “the race for theory,” turning also to resistance practices, material culture, and bodily performance as sites of black feminist theorization.
Spr HIST1972G S01 25415 M 3:00-5:30(13) (E. Owens)

This seminar explores a global history perspective to the idea of civilization since the eighteenth century. Starting from the view that the Enlightenment was a specifically European phenomenon, a foundational premise of Western modernity, we explore how the master narrative around ‘civilization’ developed and crystallized through universal history and world history into today’s global history. Analyzing the making of this global idea includes topics like the politics of knowledge production, and transnational exchanges of ideas and practices of progress, nationalism, periodization, and intertextuality in the West, Ottoman Empire and others.
Fall HIST1974L S02 16314 M 3:00-5:30(05) (M. Toksoz)

As the modern world developed and grew, the question of the Jews’ place within it became increasingly important for the majority societies and the Jews themselves to deal with. The solutions found have ranged from inclusion on equal terms through exclusion not only from society but from humanity altogether. In many ways, the debates around this issue have touched on the very meaning of modernity itself. In this advanced undergraduate seminar, we will examine the ongoing polemics on the place of the Jews from the perspectives of both the proponents of the different solutions and the Jews themselves.
Spr HIST1974P S01 24800 W 3:00-5:30(10) (A. Teller)

HIST 1974Y. Moral Panic and Politics of Fear.
What are the political uses and content of fear? This course traces the politics of panic as a window onto state, stigma, and society by pairing foundational readings in culture studies with historical monographs grounded in case studies. Over the course of the semester, we will consider such themes as: the mobilization of fear as a strategy of governance; sexuality, sickness, and disgust; the political logic of backlash; racial terror and colonialism; paranoia and conspiracy theories; popular culture and elite repression and appropriation; and the supernatural infection of fear politics.
Spr HIST1974Y S01 25923 Th 4:00-6:30(17) (J. Lambe)

More than other sub-fields of history, environmental history approaches non-human actors as agents in their own right. This forces a radical reconceptualization of the nature of the subject. What happens to our understanding of the past (and the stories we tell about the past) if we posit that mountains think, mosquitoes speak, and dogs dream? Drawing on Science and Technology Studies, Thing Theory, and Animal Studies, this course examines such questions by decentering the human and elevating non-human actors within narratives of interactive networks. Short written assignments build on each other to culminate in a research project in environmental history.
Spr HIST1976C S01 26154 Th 4:00-6:30(17) (N. Jacobs)

HIST 1976I. Imperialism and Environmental Change.
Empires conquer and control territory to enrich their ruling elites, often transforming the environments of these regions to make them more productive and profitable. This course will examine how empires have reorganized the landscapes of the regions they conquered from the ancient empires of Rome and China to the modern overseas empires of Europe and Japan and the informal American empire.
Fall HIST1976I S01 17439 W 3:00-5:30(17) (B. Lander)

HIST 1976N. Topics in the History of Economic Thought.
This reading intensive seminar exposes students to the intellectual history of capitalism via primary texts in the history of economic thought. Each semester that it is offered, we tackle a different theme through a new set of readings. Past topics include ideas about value, property, markets, labor, and inequality. We have also examined how the relationship between capitalism and other forms of production have changed over time. In the Spring of 2020, we will focus on Social Darwinism.
Spr HIST1976N S01 25819 W 3:00-5:30(10) (L. Rieple)

This course is for students interested in how ideas about what the future of human societies would look like have developed over time, and in the impact of those ideas on cultural, social and political norms. We will look carefully at examples of early modern prophecy before turning to the more recent emergence of theories of economic and social progress, plans for utopian communities, and markedly less optimistic and often dark visions of where we’re headed. We will also explore the roles capitalism, popular culture, and science have played in shaping the practices and vocabularies associated with imagining the future.
Spr HIST1976R S01 25962 W 3:00-5:30(10) (K. Smith)

HIST 1977I. 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 HIST1977I S01 25340 W 3:00-5:30(10) (D. Rodriguez)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
This seminar explores the history of French colonial Indochina (Vietnam, Cambodia, Laos) from 1858 to 1945. Challenging Euro-centric narratives of colonialism, we will critically analyze the colonial encounter as complex exchanges, geographically diverse, and socially uneven. We will examine the mechanisms and limitations of the colonial state, capitalism, cultural institutions, and science and technology. Rather than position colonialism as an external agent of change, this seminar dedicates attention to local agency, social and cultural transformations, and the creative production of ideas, print media, and urban and religious communities especially in 1920's to 1940's Hanoi, Saigon, and Phnom Penh.
Fall HIST1978D S01 17656 F 3:00-5:30(11) (C. Nguyen)

HIST 1980N. Patterns of Migration: Objects and People (COLT 1440W).
Interested students must register for COLT 1440W.
Spr HIST1980N S01 25878 Arranged 'To Be Arranged'

Interested students must register for AMST 1903J.
Fall HIST1980P S01 17342 Arranged 'To Be Arranged'

Interested students must register for JUDS 1726.
Fall HIST1981D S01 17245 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.
Fall HIST1992 S01 16071 M 3:00-5:30(05) (N. Shibusawa)
Spr HIST1992 S01 26094 M 3:00-5:30(13) (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 16072 Arranged (N. Shibusawa)
Spr HIST1993 S01 26095 Arranged (N. Shibusawa)

This is the second half of a year-long course, upon completion the grade will revert to HIST 1993. Prerequisite: HIST 1993.
Fall HIST1994 S01 16073 Arranged (N. Shibusawa)
Spr HIST1994 S01 26096 Arranged (N. Shibusawa)

HIST 2450. Exchange Scholar Program.
Fall HIST2450 S01 15303 Arranged 'To Be Arranged'
Fall HIST2450 S02 15304 Arranged 'To Be Arranged'
Spr HIST2450 S01 24194 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 15305 Arranged 'To Be Arranged'
Spr HIST2890 S01 24195 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.
"The Theory and Practice of History" encourages critical thinking about some of the different ways in which historians approach thinking and writing about the past. In particular, we will explore some of the major theoretical stances that have influenced the discipline of history. Our focus throughout will be the interplay between theory and practice. By examining how historians have grappled with questions posed by influential thinkers (often working within other fields of knowledge), we will chart the trajectory of the discipline and assess its working methods. Required for all incoming PhD students in History.
Fall HIST2930 S01 16079 T 1:15-3:45(08) (T. Nummedal)

HIST 2940. Writing Workshop.
Required of all 3rd semester Ph.D. students.
Fall HIST2940 S01 16070 M 3:00-5:30(05) (E. Pollock)

HIST 2950. Professionalization Seminar.
Required of all second year Ph.D. students.
Spr HIST2950 S01 24665 W 3:00-5:30(10) (J. Conant)

HIST 2960. Prospectus Development Seminar.
This collaborative seminar focuses on identifying and contextualizing a dissertation topic; choosing a dissertation committee and a support network; designing and executing plans for research and writing; and articulating a thesis project as a prospectus, grant proposal, and other oral and written forms. This is a required course for and open only to third-year students in the History Ph.D. program.
Spr HIST2960 S01 25973 Th 4:00-6:30(17) (L. Fisher)

HIST 2970E. Early Modern Continental Europe - Reading.
This course is designed to introduce graduate students to some major topics and debates in early modern European history, as well as a range of geographical, methodological, and historiographical perspectives. Readings combine recent works and classics to give a sense both of where the field has been and where it is going. Topics covered include political history, religious interactions (among Christians and between Christians, Jews and Muslims), urban history, the history of the book, Atlantic history, the history of science, and the Enlightenment. The class also provides the opportunity to explore a single topic of choice in greater depth.
Fall HIST2970E S01 16074 W 10:30-1:00(16) (A. Teller)

HIST 2971E. Latin American Historiography.
This course examines the development of historical writings on Latin America produced in the United States from the late nineteenth century until the present. We will focus on themes, such as race, gender, labor, subaltern studies, dependency theory, postcolonial analysis, and post-modernism, to understand the diverse approaches to Latin American history.
M Spr HIST2971E S01 24673 Th 4:00-6:30(17) (J. Green)

HIST 2971K. Slavery’s New Materialisms.
This interdisciplinary seminar explores an emerging dynamic in Slavery Studies: a move away from an older materialist history that foregrounded modes of production, class struggle, and capitalist transformation; and toward a new(er) materialism organized around human/non-human entanglements and drawing on recent theoretical work on things, networks, and assemblages. Scholars are only beginning to weigh the implications of this move for Atlantic Slavery, weighing the implications of non-human agency in a field predicated on the experiences and subjectivities of black historical actors. This seminar will include graduate students at the coursework stage, as well as doctoral candidates, postdoctoral researchers, and faculty.
Fall HIST2971K S01 16997 T 9:00-11:30(02) (S. Rockman)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
HIST 2971P. Diasporas and Transnationalism.
This reading seminar is designed to familiarize students with the most cited and current theories on diaspora and transnationalism, to examine a few exemplary case studies from around the world, and to allow students to develop and discuss their individual interests and reading lists around these broad themes and concepts, towards a prelim field or dissertation prospectus.
Spr HIST2971P S01 24845 W 3:00-5:30(10) (E. Hu-Dehart)

HIST 2971R. Approaches to Middle East History.
An overview of canonical and recent scholarship on the Middle East, beginning with neo-Orientalist and Modernization-theory writings that ruled until the early 1960s, then a consideration of two turns often in productive tension with each other: materialist approaches that lead to social history and political economy, and discursive approaches that lead to cultural and post-colonial studies. We then consider works on the environment and technopolitics, gender and sexuality, and law and society, among others. Throughout, we consider how theoretical trends in other disciplines shaped the writing of history. Requirements include weekly essays, oral presentations, and a literature review.
Fall HIST2971R S01 16185 Th 4:00-6:30(04) (B. Doumani)

HIST 2971X. Graduate Readings in Atlantic World History.
This course is a wide-ranging readings course in the vast and changing field of Atlantic World History. Readings will engage the full range of empires and peoples in the wider Atlantic basin, including Africans, Indians, and the various European empires. Special attention will also be given to wider oceanic and global trends in the field, including the Pacific and Indian Oceans, emerging literature on environmental considerations, and theoretical approaches to foodways and medicine. All graduate students welcome.
Fall HIST2971X S01 16312 Th 4:00-6:30(04) (L. Fisher)

HIST 2980B. Legal History.
An introduction for graduate students to the significance and methods of legal history, broadly defined. Students will engage with works in legal history from a variety of time periods and geographical areas, and they will be guided to sources related to their specific research interests. A major research essay will be required that draws from the models of legal history given and is based on original research into legal sources.
Spr HIST2980B S01 25632 M 3:00-5:30(13) (M. Vorenberg)

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 "objectivity."
Fall HIST2981F S01 16076 W 3:00-5:30(17) (L. Rieppl)

HIST 2981Q. Histories of Empire and Decolonization.
For most of history humans have not lived within neatly bound nation-states. Rather, empires often organized the political, economic and social lives of diverse peoples. But the age of empire came to a dramatic end by the middle of the twentieth century. How and why did this rapid transformation occur and how have the legacies of colonialism continued to shape former colonies and metropoles? This course, which examines theories and case studies of empire and decolonization throughout the nineteenth and twentieth centuries, seeks to address these questions, through key concepts including racial difference, citizenship, self-determination, settler colonialism, nationalism, and decolonization.
Fall HIST2981Q S01 16202 W 3:00-5:30(17) (J. Johnson)

The History of the Book in the Early Modern World examines how the production and dissemination of texts influenced conceptions and categorization of knowledge, reading practices, social access to knowledge, the development of political formations, etc. We first read some of the foundational works in the field, largely the work of European book historians. The remainder of the course investigates—through the reading of monographs on different book cultures and hands—on examination of books as material objects—the impact that books (especially print books) had on western Europe, the Islamic world, and East Asian empires in the early modern period.
Spr HIST2981S S01 25850 M 9:30-12:00(03) (C. Brokaw)

HIST 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall HIST2990 S01 15306 Arranged "To Be Arranged"
Spr HIST2990 S01 24196 Arranged "To Be Arranged"

HIST 2993. Gender Matters (ITAL 2550).
Interested students must register for ITAL 2550.
Spr HIST2993 S01 26066 Arranged "To Be Arranged"

HIST 2994. Roman Epigraphy (LATN 2120A).
Interested students must register for LATN 2120A.
Fall HIST2994 S01 17444 Arranged "To Be Arranged"
Fall HIST2995 S01 17269 Arranged "To Be Arranged"
Spr HIST2995 S01 26067 Arranged "To Be Arranged"

History of Art and Architecture

HIAA 0001. Architectural Design.
Design principles presented in the first semester are further developed through a series of projects involving actual sites with their concomitant physical and historic-cultural conditions. Issues of context, methodology, program and construction are explored for their possible interrelated meanings and influences on the making of architectural form.
Estimated Cost of Materials: $55.00
Spr HIAA0001 S01 25964 MTh 1:10-6:10(07) "To Be Arranged"

HIAA 0002. Advanced Design Studio.
These studios, three of which are required for graduation, are offered by individual instructors to students who have successfully completed the core curriculum. They are assigned by lottery on the first day of classes. Once assigned to an advanced studio, a student may not drop studio.
Fall HIAA0002 S01 17228 Arranged "To Be Arranged"
Spr HIAA0002 S01 25966 MTh 1:10-6:10(07) "To Be Arranged"

This course introduces the beginning student to the origins, media, geometries and role(s) of projection drawing in the design and construction process. The student will learn systems of projection drawing from direct experience, and be challenged to work both from life and to life. Subjects such as transparency, figure/ground, sciagraphy, oblique projection, surface development, volumetric intersections, spatial manipulation and analytic operations will build on the basics of orthographic and conic projection. The course involves line and tone drawing, hand drafting, computer drawing(Autocad) and computer modeling(Rhino).
Fall HIAA0003 S01 17229 Arranged "To Be Arranged"
HIAA 0004. Architectural Analysis.
This course will develop one's ability to critically read and understand architecture through formal, geometric, tectonic and spatial analytic processes. Analysis acts as an intermediary between observation, expression, and understanding, offering deep insights into works of architecture. The course builds upon the processes introduced in Architectural Projection. Through various conceptual and representational frameworks, the issues of mapping-layers, point of view, scale, morphology, topography and tectonics will be explored as part of a larger creative process, embracing visual imagination, communication and critique.

Estimated Material Cost: $50.00.
Spr HIAA0004 S01 25968 F 1:10-6:10(07) "To Be Arranged"

HIAA 0005. Structural Analysis.
The basic content will be statics and strength of materials. The first portion will deal with force vectors, trusses, cross-sectional properties, and shear/moment diagrams, followed by stresses, strains, material applications and the analysis procedures necessary to compute structural behaviors. This class is foundational to all future structural design classes such as Wood Structures and Steel Structures. A math test will be given prior to the first class to determine which students are required to attend a supplemental lecture class instructed by the teaching assistant. This course is a prerequisite for Steel Structures, Wood Structures, and Concrete Structures.
Fall HIAA0005 S01 17229 Arranged "To Be Arranged"

HIAA 0006. Wood Structures.
This course will review the fundamentals of wood in architecture with a focus on wood materials and construction systems and lumber and timber structural analysis and design. Work includes timber systems consisting of conventional framing trusses, laminates, built-up sections, and connections. In addition, this course will review the principles of structural loads: gravity, lateral, live and dead. The concept of lateral resistance through standard wood framing systems will be explored. Manufactured lumber has become a major part of today's wood construction industry and the design and detailing of these materials will be explored in depth.
Spr HIAA0006 S01 25989 T 1:10-4:10(08) "To Be Arranged"

HIAA 0007. Environmental Design II.
The study of basic concepts of Human Environmental Comforts. Inherent within 'physio-environ' considerations are principles of temperature, humidity, heat transfer, air movement, and hydrostatics. These principles will be studied in terms of their abstract physics and mathematics, through empirical benchmarking and as the basis for a design proposal that includes considerations of larger scale strategies as well as assemblies. Emphasis will be placed on the principles behind the technology, the behavioral characteristics and the qualities of the systems’ operation considered in making building design decisions.
Spr HIAA0007 S01 25970 W 1:10-4:10(08) "To Be Arranged"

HIAA 0008. Environmental Design I.
The study of basic concepts of Human Environmental Comforts. Inherent within ‘physio-environ’ considerations are principles of temperature, humidity, heat transfer, air movement, and hydrostatics. These principles will be studied in terms of their abstract physics and mathematics, through empirical benchmarking and as the basis for a design proposal that includes considerations of larger scale strategies as well as assemblies. Emphasis will be placed on the principles behind the technology, the behavioral characteristics and the qualities of the systems’ operation considered in making building design decisions. No Pre-requisites. Hour TBD
Fall HIAA0008 S01 17230 Arranged "To Be Arranged"

HIAA 0022. The Art of Enlightenment.
This course surveys the history of Buddhist art-making from the earliest representations of the Buddha to the curatorial practices of modern museums. Ranging from the great mandala of Borobudur in Java to the Zen monasteries of Japan, we will examine the complex ways in which theology and scripture interacted with the particularities of time and place in the long development of Buddhist art. Throughout these inquiries, the sensorial qualities of the art will remain at the forefront of our analysis. Together, we will explore the mechanisms by which artists transformed inert matter into powerful implements of the Buddhist dharma.
Spr HIAA0022 S01 24556 MWF 12:00-12:50(05) (J. Moser)

Survey the amazing art in Holland and Flanders that revolutionized all media. We will see how paintings, sculpture, and architecture formed the historical environment of life in the 17th-century Netherlands. The work of such artists as Rubens, Rembrandt, Van Dyck, and Vermeer is presented as part of this history of art in a “golden age.” Weekly one-hour conference required.
Spr HIAA0062 S01 24557 TTh 10:30-11:50(09) (J. Muller)

“Taste” is the sensory perception of flavor and the act of judging aesthetic quality. This class asks how the taste for food and for art relate in the early modern world. From the movement of spices, scents, chocolate, and sugar to the vessels that were invented to contain them, we will investigate the trade and circulation of foods and objects. We will then turn to cities that flourished in the wake of such consumption across the globe and their dedication to pleasure and devotion. Finally, we will consider memory and migration through cookbooks, metaphors, and dinner parties.
Fall HIAA0063 S01 17450 TTh 10:30-11:50(13) (H. Shaffer)

HIAA 0075. Introduction to the History of Art: Modern Photography.
This class will survey the history of photography as an art form and means of visual communication in the modern era. The photograph will be considered from both esthetic and social perspectives; photography's rise as a medium of personal expression will be examined, as will technology's role in the creation of new regimes of spectatorship, and the mass dissemination of visual information. The class follows the rise of photography's acceptance as an art form in the twentieth century, and culminates with its prominence within the phenomenon of postmodernism. Prior coursework in modern history or art history is helpful. Enrollment limited 80.
Fall HIAA0075 S01 15971 MWF 12:00-12:50(15) (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 irrepressibly 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.
Spr HIAA0077 S01 26261 TTh 2:30-3:50(11) (H. Shaffer)

HIAA 0084. Postwar to Postmodernism: Art Since 1945.
This lecture course will survey major artistic movements and strategies that developed from the postwar period through the 1980s. Styles and schools discussed will include art informel, Abstract Expressionism, Happenings, expanded cinema, kinetic art, Fluxus, Situationists, Pop, minimalism, conceptual art, performance, Institutional Critique, video art, and appropriation. Taking a globally comparative approach, emphasis will be on the historical conditions that gave rise to such a multiplicity of practices, as well as the theoretical frameworks used to advance and understand them.
Spr HIAA0084 S01 25910 TTh 9:00-10:20(01) (L. Caplan)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
HIAA 0089. Contemporary Photography.
This course surveys the rise of photography in the art world in the period after 1960. It examines both the development of photography as an independent medium and the appropriation of lens-based imagery by Pop Art, conceptual art, minimalism, and eventually Postmodernism. Spr HIAA0089 S01 24559 MWF 10:00-10:50(03)  (D. Nickel)

HIAA 0100. Introduction to Architectural Design Studio.
Introduces students to basic tools and strategies in architectural design. A number of exercises will introduce students to questions about form, function and structure and teach them to learn from close observation of the built environment. The second half of the semester is devoted to the design of a small house by each student, which will be presented in a scale model and a full set of drawings at the end of the semester. A jury of invited architects and professors will conduct a discussion of each project. Enrollment limited to 15. Instructor permission required. Fall HIAA0100 S01 15974 F 2:00-7:00(07)  (D. Neumann)

Examines painting, sculpture, architecture and printing in the context of the unique urban character of Early Modern Rome: site of ancient myth, religious pilgrimage and a cosmopolitan court with power and influence across both visible and invisible worlds. Beginning with late medieval art, and the artists Filarete and Fra Angelico, we move through the Renaissance (Michelangelo and Raphael), and Counter-Reformation (Fontana, Tempesta, Barocci), tracing the formation of modernity in artists' workshops and academies, and through the streets with expanding papal urbanization programs. A Fall HIAA0560 S01 17906 TTh 2:30-3:50(03)  (E. Lincoln)

HIAA 0660. Giotto to Watteau: Introduction to the Art of Europe from Renaissance to French Revolution.
Giotto to Watteau introduces the great works of European art from the Renaissance to French Revolution. What ideas and forces enabled artists such as Leonardo da Vinci, Hieronymus Bosch, El Greco, Caravaggio, and Rembrandt to transform the visual world so profoundly that their innovations still radiate outwards through history into the present? What are the best terms and concepts to describe and understand the new styles that developed between 1300 and 1800? Lectures, discussion, reading, and direct looking consider these questions in a way that works for students at an introductory level. A Fall HIAA0660 S01 15970 TTh 1:00-2:20(08)  (J. Muller)

HIAA 0770. Architecture and Urbanism of Africa.
This course introduces African built environments from the earliest known examples to the contemporary moment. Through recent debates about heritage and preservation, we will interrogate "Africa" as both an imagined construct and a concrete geographic entity characterized by diverse cultures, contexts, and histories. We will also explore competing interpretations of Africa's architectural and urban history and their contemporary relevance. Weekly one-hour section required. A Spr HIAA0770 S01 24562 TTh 1:00-2:20(08)  (I. Osayimwese)

HIAA 0820. Art and Technology from Futurism to Hacktivism.
This course will introduce students to the central role of technological media in art of the twentieth and twenty-first centuries. From telephones to computers, the Sony Portapak to the Internet, artists have creatively engaged technology to transform how their art was made, circulated, and received. We will pay equal attention to technology as a medium and the ways artists responded to broader technological change. Looking at works from Europe, the Americas, and Japan, we will interrogate the varying social conditions and political motivations that drove artists to use technology in order to radically change the making and meaning of art. Fall HIAA0820 S01 17350 TTh 9:00-10:20(22)  (L. Caplan)

HIAA 0850. Modern Architecture.
The "classic" period of European and American modern architecture from the turn of the century to the 1950s. Presents both the established canon of masterpieces by among many others, Frank Lloyd Wright, Mies van der Rohe, and LeCorbusier, and counterbalances this approach with information about new building materials, changing conditions of architectural production, and the "mechanisms of fame." A Fall HIAA0850 S01 15973 MWF 1:00-1:50(06)  (D. Neumann)

HIAA 0860. Contemporary Architecture.
Stylistic, technological, and theoretical developments in architecture from the 1960s to the present. Analyzes movements such as "Brutalism," "Postmodernism," and "Deconstruction" and works by architects such as Frank Gehry, I. M. Pei, and Zaha Hadid. Emphasizes the complex conditions of architectural production in different parts of the world. Complements HIAA 0850, but may be taken independently. A Spr HIAA0860 S01 24560 MWF 1:00-1:50(08)  (D. Neumann)

HIAA 1182. Spaces and Institutions of Modernity.
This undergraduate seminar will explore canonical and emerging theories of modernity as they intersect with our understanding of space and the role of the built environment and designed objects within it. The seminar will be organized as a series of case studies of the iconic sites and institutions of modernity (the metropolis, the world's fair, the museum, the prison) as well as others that have also come to exemplify it (the ship, the plantation, the railroad, the colony). Class time will include analysis of primary documents and field trips to local sites. A Spr HIAA1182 S01 24564 M 3:00-5:30(13)  (I. Osayimwese)

HIAA 1212. The Pictured Text.
Writing makes language visible, and thus concerns images. Language also delimits the legibility of imagery. Turning words into images and images into words occurs at great speed around us. This course explores the relation of text and image across world traditions—Chinese, Mayan, Egyptian, Islamic, Greco-Roman, and others, extending up to the present. A Fall HIAA1212 S02 16805 W 3:00-5:30(17)  (J. Moser)

HIAA 1620. Arts Between Europe and the World: 1500-1700.
How did arts and visual objects of all kinds mediate between Europe and regions of the world opened to contact through trade, conquest, religious conversion, and the exchange of knowledge? This seminar will search for the major contexts of these exchanges and for the best methods to understand their histories. What conditions enabled or prevented mutual recognition? How were foreign materials imported and integrated, as with Chinese porcelain in the Netherlands or European glass in China? What balances of power determined exchanges, from the colonial extinction of Pre-Columbian art to the adaptation of western perspective in Japanese prints? A Fall HIAA1620 S01 17118 M 3:00-5:30(05)  (J. Muller)

This course will consider the ways in which visual culture in colonial Latin America functioned as leveraging tools, means to assert authority and/ or identity, ways to maintain the status quo, and forms of resistance. We will examine objects from Mexico and Peru related to religious practice, domestic life and the political realm with emphasis on understanding the roles various participants played in their production and reception. Fall HIAA1631 S01 17768 Th 4:00-6:30(04)  (J. Stair)

The selfie is ubiquitous today, but posing for a portrait has a history. This seminar examines the art of portraiture—from the celebrity to the beloved pet to its medium in paint, print, and stone—during the period of its modern formation in the eighteenth century. How are new concepts of the self represented through expression, environment, and stuff? How do people fake it in portrayal to redeem or elevate their pasts? How can the self be understood in different historical contexts? A Spr HIAA1720 S01 25428 W 3:00-5:30(10)  (H. Shaffer)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
HIAA 1822. Dada and Surrealism: Anarchy, Exile, Alterity.
This seminar will examine the experimental practices of Dada and Surrealism with a focus on the historical conditions, theoretical influences, and political ambitions that shaped them: the trauma of war; experiences of exile and displacement; uses and abuses of psychoanalysis; anthropology, and political theory; Communist allegiances; as well as anti-colonial projects and counterparts in the Caribbean, Latin America, and North Africa. We will consider a range of artistic practices (performance, assemblage, the "ready-made," photomontage, poetry, painting, sculpture, exhibitions) with the aim of complicating our understanding of these movements and assessing the relevance of their subversive project today.
Fall HIAA1822 S01 17542 T 4:00-6:30(09)  (L. Caplan)

HIAA 1850H. Berlin: Architecture, Politics and Memory.
This course deals with the architecture and urbanism of the German capital and the way the city's traditions of commemoration in different phases of its history and under different political regimes. Students will research historic structures and sites of the 19th through 21st Centuries and engage with the intense German debate about historic preservation and commemoration. The course will travel to Berlin during spring break. There we would meet with local architects, politicians and artists to discuss the city's engagement with its dramatic past. Course enrollment by application.
Spr HIAA1850H S01 24561 M 3:00-5:30(13)  (D. Neumann)

This seminar will map out the field of indigenous art with an emphasis on artworks from English-speaking settler colonial countries, concentrating on Native North American and Aboriginal Australian artists. We will approach indigenous art theoretically, outlining major issues and concepts of this global topic. Units will include defining indigeneity and indigenous art terms, anthropology in relation to art, and curatorial practice. We will begin by addressing the concept of indigeneity through legal and sociopolitical frameworks, continuing with museological display of indigenous art across time, and seeing how museums are working to better contextualize their anthropological collections.
Fall HIAA1882 S01 17769 M 3:00-5:30(05)  *To Be Arranged*

HIAA 1888. Exhibition as Medium.
This seminar will examine "the exhibition" as a medium for artists in the modern and contemporary period, with particular focus on developments since the 1960s. We will look at artists who have staged alternative exhibitions in non-traditional spaces, worked within museums and galleries to dismantle curatorial conventions, and, most of all, created exhibitions that stand alone as single works of art. Emphasis will be on the relationship between form and content, the definition of audience and the public, and the intersections and tensions between art and history.
Spr HIAA1888 S01 26267 T 4:00-6:30(16)  (L. Caplan)

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 2212. The Pictured Text.
Writing makes language visible, and thus concerns images. Language also delimits the legibility of imagery. Turning words into images and images into words occurs at great speed around us. This course explores the relation of text and image across world traditions—Chinese, Mayan, Egyptian, Iberian, Greco-Roman, and others, extending up to the present. Topics include: calligraphy, context, scribal practice, the form and shape of writing, including typography, hidden or pseudo-writing, graffiti, and contemporary art.
Fall HIAA2212 S01 17474 W 3:00-5:30(17)  (J. Moser)

HIAA 2285. Decolonizing Space and Visual Cultures.
This seminar explores scholarly debates about decolonizing space and visual cultures in post-colonial sub-Saharan Africa and Europe. We will discuss these recent initiatives in the context of previous efforts and of a focused study of African-European colonial histories. Themes include: the violent acquisition of African artifacts; the inscription and erasure of mythologies of colonial conquest and heroism in the iconography of colonial monuments; the semiotic transformation of colonial architecture through nationalization; colonial topography and land reform.
Fall HIAA2285 S01 17243 Th 4:00-6:30(04)  (L. Osayimwese)

HIAA 2450. Exchange Scholar Program.

How did arts and visual objects of all kinds mediate between Europe and regions of the world opened to contact through trade, conquest, religious conversion, and the exchange of knowledge? This seminar will search for the major contexts of these exchanges and for the best methods to understand their histories. What conditions enabled or prevented mutual recognition? How were foreign materials imported and integrated, as with Chinese porcelain in the Netherlands or European glass in China? What balances of power determined exchanges, from possible the colonial extinction of Pre-Columbian art to the adaptation of western perspective in Japanese prints?
Fall HIAA2620 S01 17262 M 3:00-5:30(05)  (J. Muller)

HIAA 2860B. Photographic Origins.
Through a series of directed readings and discussions, this seminar explores the origins and implications of photography's invention in the wake of Enlightenment philosophy, the industrial revolution, and Romanticism in Europe. No prerequisites, but background in the history of photography and/or 19th century Western art is encouraged.
Fall HIAA2860B S01 17441 M 3:00-5:30(05)  (D. Nickel)

HIAA 2930A. Reprographics: Impressions in the History of Art.
2019 Graduate practicum examines technologies of reprography that played essential roles in generating the global history of art. Defining reprography broadly to encompass all pre-photographic technologies of graphic impression, we will explore the transfers that occurred between piece-mold casting, ceramic molding, sealing, textile printing, and printmaking, and the role these technologies played in transmitting formal schemata and shaping broader approaches to art-making. Students will develop a case study that showcases the echoes of a particular reprographic technology across other media. Together, we will integrate these studies into a virtual exhibition that highlights the various ways in which reprography made art global.
Fall HIAA2930A S01 17619 F 3:00-5:30(11)  (J. Moser)

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 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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
HIAA 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall  HIAA2990  S01  15299  Arranged  “To Be Arranged”
Spr  HIAA2990  S01  24190  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  15300  Arranged  “To Be Arranged”
Spr  HIAA2991  S01  24191  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.

Fall 2019
The following related courses, offered in other departments, may be of interest to students concentrating in the History of Art and Architecture. Please see the course listing of the sponsoring department for times and locations.

Cogut Institute for Humanities
HMAN 2400R Tracing Translations: Artistic Migrations and Reinventions in the Early Modern World
Spring 2020
The following related courses, offered in other departments, may be of interest to students concentrating in the History of Art and Architecture. Please see the course listing of the sponsoring department for times and locations.

Cogut Institute for Humanities
HMAN 2400T Imagining Cities: Early Modern Urban Perspectives

International Relations

This course presents an interdisciplinary approach to the study of security. This means we examine the notion of what constitutes security from a variety of disciplinary perspectives that may not always agree or overlap. Specifically, in addition to political science, the course draws on recent work in evolutionary psychology, biological anthropology and behavioral economics to examine existing problems, issues and questions in security studies. The goal of this course is to investigate the extent to which various disciplinary models and methods can help to further inform or develop the study of security. Substantive applications include a wide variety of empirical methods.
Fall  INTL0600  S01  17659  MWF  11:00-11:50(16) (R. McDermott)

INTL 0700. Global Health, Humanitarianism, and Inequality.
The term “global health” refers to an aspiration and a set of problems. An aspiration to global health has potential to unite biosecurity, humanitarian, and philanthropic efforts to rid the world of infectious disease, improve sanitation, and address malnutrition. As a set of problems, global health is less unifying than unruly. Deciding when a local epidemic becomes a global emergency or calculating the economic value of healthy childbirth are not straightforward processes. This course takes a multidisciplinary, critical approach to global health. Focus will be on “bottom-up” perspectives—how projects and policies play out in the lives of individuals and communities.
Fall  INTL0700  S01  17797  TTh  2:30-3:20(03) (A. Nading)

This course examines the challenges of cyber security from a strategy and policy perspective. Our main focus: challenges to achieving cyber security; and of building cyber security capacity in national security (including cyber war and critical infrastructure security), economic development, and international security contexts. We incorporate global, as well as corporate, government, and non-governmental organizational perspectives. We start by working toward what “cyber,” “security,” “strategy,” and “power” mean; and develop an understanding of the policy issues faced by public and private sector stakeholders. Students should be familiar with international relations theory, but no technical background is needed.
Fall  INTL1220  S01  17932  TTh  10:30-11:50(13) (I. Arreguin-Toft)

INTL 1221. Sex & War.
The course explores biological and social determinants of participation in aggression, violence, and war; along with how and why sex differences become gendered. Some topics include gender biases in international relations theories, women in combat, LGBTQs in the military, discourse, attitudes towards war, rape, and female and male roles in the conduct of war. The course also assesses the ongoing evolution of the roles of women as leaders, actors, and agenda-setters in, and objects of, foreign policy. Some familiarity with international relations theory is helpful, but there are no prerequisites.
Fall  INTL1221  S01  17933  TTh  1:00-2:20(08) (I. Arreguin-Toft)

INTL 1802V. Diplomacy, Economics & Influence.
This course examines a dozen diplomatic situations and identifies the players, their interests, and their tools — and how those produced outcomes. Particular attention is paid to economic factors — pressures, incentives, and influences — that contribute to the outcome. By examining these elements students will understand the economic tools of diplomacy and power, and how to wield them. The course concludes with a close look at China’s growing role in the world economy and considers how that will change China’s role in world affairs. Enrollment limited to 20 Juniors & Seniors. Priority given to IR seniors.
Fall  INTL1802V  S01  17488  Th  4:00-6:30(04) (R. Boucher)

INTL 1803W. Roots of Crisis in Central America.
The five countries of Central America comprise a comparatively little-studied region. From time to time they burst into the world’s consciousness, usually because of political upheaval, foreign intervention, or refugee flows. The forces that set off these crises are rarely explored. This seminar surveys and analyzes Central America from social, cultural, political, and historical perspectives. Restricted to seniors and juniors only. Priority given to IR seniors.
Fall  INTL1803W  S01  17434  Th  3:00-5:30(17) (S. Kinzer)

INTL 1910. Senior Honors Seminar.
Open only to Senior students accepted into the honors program in international relations. Instructor permission required.
Fall  INTL1910  S01  17435  W  6:30-9:00(09) (C. Elliott)

Open only to Senior students accepted into the honors program in international relations. Instructor permission required.

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, comprehension, 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  16323  MW  1:00-1:50(09) (C. Abbona-Sneider)
Fall  ITAL0100  S01  16323  Th  1:00-2:20(09) (C. Abbona-Sneider)
Fall  ITAL0100  S02  16324  TTh  10:30-11:50(09) (C. Abbona-Sneider)
Fall  ITAL0100  S02  16324  MW  11:00-11:50(09) (C. Abbona-Sneider)
Fall  ITAL0100  S03  16325  TTh  9:00-10:20(09) (C. Abbona-Sneider)
Fall  ITAL0100  S03  16325  MW  10:00-10:50(09) (C. Abbona-Sneider)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ITAL 0110. Intensive Elementary Italian. 
Covers the same material presented in Italian 100-200. One semester equivalent to the standard two-semester sequence. Daily meetings plus audio and video assignments.
Spr ITAL0110 S01 24299 MTWThF 12:00-1:50(05) (C. Abbona-Sneider)

ITAL 0200. Elementary Italian.
See Elementary Italian (ITAL 0100) for course description.
Spr ITAL0200 S01 24743 MW 1:00-1:50(16) (F. Fantarella)
Spr ITAL0200 S01 24743 TTh 1:00-2:20(16) (F. Fantarella)
Spr ITAL0200 S02 24744 MW 10:00-10:50(16) (F. Fantarella)
Spr ITAL0200 S02 24744 TTh 10:30-11:50(16) (F. Fantarella)
Spr ITAL0200 S03 24745 MW 2:00-2:50(16) (F. Fantarella)
Spr ITAL0200 S03 24745 TTh 2:30-3:50(16) (F. Fantarella)

ITAL 0300. Intermediate Italian I. 
Review of the fundamentals of grammar, with emphasis on speaking and writing. Reading of representative short stories. Weekly compositions, presentations, and a paper. Three Italian films. Prerequisite: ITAL 0100-0200, or ITAL 0110, or placement by examination. Requirement for enrollment in the Bologna Program.
Fall ITAL0300 S01 16326 MTWTh 11:00-11:50(18) (C. Abbona-Sneider)
Fall ITAL0300 S02 16327 MTWTh 12:00-12:50(18) (C. Abbona-Sneider)

ITAL 0400. Intermediate Italian II. 
Review of specific grammar problems. Reading of one novel and newspaper articles. Compositions and oral presentations. Three Italian films. Prerequisite: ITAL 0300, or placement by examination.
Spr ITAL0400 S01 24746 MTWTh 11:00-11:50(12) (F. Fantarella)
Spr ITAL0400 S02 24747 MTWTh 12:00-12:50(12) (F. Fantarella)

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 16328 MTWTh 12:00-12:50(15) (C. Abbona-Sneider)

ITAL 0600. Advanced Italian II. 
A sixth semester course with intensive practice in speaking and writing. Short stories, poems, music, and movies will be used to discuss Italian Society from the Second World War through the present. We will explore some important themes—family, religion, gender, and politics. Class discussion, compositions, oral presentations, and a final paper. Prerequisite: ITAL 0500, placement by examination.
Spr ITAL0600 S01 24748 TWTh 12:00-12:50(05) (F. Fantarella)

ITAL 0701. Simulating Reality: The (Curious) History and Science of Immersive Experiences.
Can an experimental approach enhance our critical-historical understanding of immersive experiences? We will look at the history of 3D vision from an interdisciplinary perspective combining the science of perception and the cultural history of technology. Through a series of collaborative activities and team experiments, we will learn how popular, pre-digital optical devices (such as camerae obscurae, magic lanterns, panoramas or stereoscopes) foreshadow contemporary VR, AR, or XR experiences designed for education and entertainment. Among the themes explored: virtual travel, social voyeurism and surveillance, utopian and dystopian imagination.
Spr ITAL0701 S01 25714 M 3:00-5:30(13) (M. Riva)

ITAL 0975. Let’s Eat, Italy: Italian History and Culture through Food. 
We are what we eat. This course focuses on Italian traditions and its daily culinary practices to understand how food shaped and continues to shape Italian culture and identity. We will explore the historical, economic and social factors that have influenced the development of a national cuisine. How does food connect memory and identity? Sources considered are family memoirs and cookbooks; political programs of Futurism and Fascism and their relationship to Italian foodways; food representations in literature and cinema. Course will look at Italian - American cuisine and its key role in shaping identities in the new world.
Fall ITAL0975 S01 16329 TTh 1:00-2:20(08) (F. Fantarella)

ITAL 1020. Boccaccio’s Decameron.
Close study and discussion of Boccaccio’s collection of 100 tales told by ten young Florentines over a period of two weeks, while in flight from the devastating plague of 1348. The Decameron defined the standard of Italian prose narrative for four centuries and deeply influenced Renaissance drama. We will also pay particular attention to visualizations and adaptations of the Decameron into a variety of media, from manuscript illumination to painting, theatre and film. Students will contribute to the Decameron Web, the award-winning Boccaccio web site administered by the department of Italian Studies. Sections in English and Italian. Enrollment limited to 40.
Spr ITAL1020 S01 24749 TTh 2:30-3:50(11) (R. Martinez)

ITAL 1350A. Transmedia Storytelling and the New Italian Epic. 
Transmedia Storytelling and the New Italian Epic. “New Italian Epic” describes a network of stories blending fiction and non-fiction across a variety of media, from books to blogs and zines, from feature or documentary films to TV/YouTube series and video games. These Unidentified Narrative Objects often explore conflictual aspects of contemporary society, such as migration, organized crime, trafficking and corruption, environmental upheavals, from a militant perspective. We will look at the way these UNos both exploit and evade technological and industrial constraints in order to shape their realistic, utopian or dystopian strategies. Sections in both Italian and English.
Fall ITAL1350A S01 16330 Th 4:00-6:30(04) (M. Riva)

ITAL 1610. The Divine 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.
Spr ITAL1610 S01 24750 W 3:00-5:30(10) (R. Martinez)

ITAL 1920. Independent Study Project (Undergraduate).
Undergraduate Independent Study supervised by a member of the Italian Studies Faculty. Students may pursue independent research in order to prepare for their honors thesis or honors multimedia project, or they may enroll in the course in order to work individually with a faculty member on a specific area of Italian Studies not covered in the current course offerings. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ITAL 1990. Senior Conference.
Special work or preparation of an honors thesis under the direction of a member of the staff. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ITAL 2050. Microhistory.
Microhistory emerged in the 1970s in Italy, but was quickly embraced by scholars across the globe. Microhistory questioned totalizing explanations of historical change; rejected anachronism in all forms; and recovered the voices of individuals left out of traditional historical narratives. This course explores and critiques the method. Participants write an article in their area of interest, informed by microhistory.
Spr ITAL2050 S01 26057 F 2:00-4:30(07) (C. Castiglione)
ITAL 2100. Introduction to Italian Studies.
This seminar, a requirement for graduate students in Italian Studies, has three objectives: 1) to provide a panoramic view of the current research in the interdisciplinary field of Italian studies (literature, history, arts and media); 2) to provide a picture of the professional field of the study, within the framework of more global developments in academia and the job markets; 3) to provide useful information about the resources and the new tools and techniques for research available to students at Brown and elsewhere (special collections in the Brown libraries, digital resources such as data bases, electronic journals, web projects, etc.).

ITAL 2450. Exchange Scholar Program.
Fall ITAL2450 S01 15307 Arranged "To Be Arranged"
Spr ITAL2450 S01 24197 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 16333 F 12:00-1:30(15) (M. Riva)
Spr ITAL2820 S01 24751 F 12:00-1:30(05) (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 15308 Arranged "To Be Arranged"
Spr ITAL2970 S01 24198 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 residency requirement and are continuing research on a full time basis.
Fall ITAL2990 S01 15309 Arranged "To Be Arranged"
Spr ITAL2990 S01 24199 Arranged "To Be Arranged"

Judaic Studies

Biblical 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. 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.
Fall HEBR0100 S01 15809 TTh 1:00-2:20(06) (R. Adler Ben Yehuda)
Fall HEBR0100 S01 15809 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.
Spr HEBR0200 S01 24457 TTh 1:00-2:20(06) (R. Adler Ben Yehuda)
Spr HEBR0200 S01 24457 MWF 1:00-1:50(06) (R. Adler Ben Yehuda)

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.
Fall HEBR0300 S01 15810 TTh 12:00-12:50(15) (R. Adler Ben Yehuda)
Fall HEBR0300 S01 15810 MWF 12:00-12:50(15) (R. Adler Ben Yehuda)

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.
Spr HEBR0400 S01 24458 TTh 12:00-12:50(05) (R. Adler Ben Yehuda)
Spr HEBR0400 S01 24458 MWF 12:00-12:50(05) (R. Adler Ben Yehuda)

HEBR 0500. Writing and Speaking Hebrew.
Enables students to improve their skills in speaking and writing Hebrew on a variety of topics. Features advanced work on language structure and active language practice in the classroom. Class discussions of Israeli current events draw on Israeli stories, poems, television programs, and films and on the Israeli press. Students also compose essays and stories in Hebrew. Prerequisite: HEBR 0400 or equivalent. Enrollment limited to 20.
Fall HEBR0500 S01 15811 TTh 2:30-3:50(03) (R. Adler Ben Yehuda)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Judaic Studies

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 into 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 Jewish world.
Fall JUDS0050M/S01 15812 TTh 1:00-2:20(08) (A. Teller)

JUDS 0060. The Bible and Moral Debate.
How was the Bible employed in past moral debates that divided American society, e.g., debates over the legitimacy of slavery? How is the Bible used in contemporary moral discourse, e.g., concerning abortion, capital punishment and gay rights? What does the Bible really have to say about such issues? This course will consider these and other questions through a close reading of pertinent texts which address topics such as abortion, homosexuality, capital punishment, immigration, gender, family violence, race and slavery, disability, genocide, the environment and inequality of wealth. No prerequisites.
Spring JUDS0060 S01 24459 TTh 10:30-11:50(09) (S. Olyan)

This course will review the history of antisemitism, from antiquity to the present along with theoretical perspectives on why it has been so persistent. Topics will include: Christian and Muslim anti-Judaism; racism; economic stereotypes; and modern manifestations in the U.S. and Europe.
Spring JUDS0063 S01 24801 TTh 2:30-3:50(11) (M. Satlow)

JUDS 0606. Gender in Early Jewish and Christian Narratives.
Many of the favorite narratives of Jews and Christians in the ancient period (for this course, about 400 BCE to 300 CE) featured women characters or emphasized issues of gender: Esther, Judith, and Susanna; Mary Magdalene and other gospel women, or Thecla, the perhaps legendary companion of Paul. Both Jewish and Christian texts used gender to explore new ways of constructing heroic women and men that either re-inscribed or challenged traditional roles. This seminar takes up a close reading of narrative texts, compared also with wisdom texts (Proverbs, Ben Sira, Wisdom of Solomon, Avot).
Spring JUDS0606 S01 25854 T 4:00-6:30(16) (L. Wills)

JUDS 0670. War and Peace in the Hebrew Bible and its Environment.
An examination of the role of war and peace in the Hebrew Bible and in texts and art of ancient Israel’s neighbors. Topics include divine beings, war and peace-making; peace treaties; explaining defeat and victory; ideologies of warfare; the treatment of prisoners, corpses and captured bones; the warrior as masculine ideal; civil war and coups; treaty obligations; ritual dimensions of war and peace (e.g., mourning, animal sacrifice, child sacrifice, divination, memorializing war); visual representations of war as propaganda; the idea of a future, eschatological war between the forces of good and the forces of evil. No prerequisites.
Fall JUDS0670 S01 16372 TTh 9:00-10:20(02) (S. Olyan)

JUDS 0682. How Bible Became Holy.
Over the past 2,000 years, people have killed and died for the Bible, and it continues to exercise a powerful if contested role in modern politics. Yet how did it achieve this power? This course will trace the development of the Hebrew Bible (Old Testament) from its origins in ancient Israel to its development about five hundred years later as a foundational text of both Judaism and Christianity. The focus will be on how Jews and early Christians throughout antiquity understood and ascribed authority to the Bible.
Fall JUDS0682 S01 16769 TTh 1:00-2:20(08) (M. Satlow)

JUDS 0820. The Language of Religious Faith.
A course on the ways poetry provides a language of religious faith that emerges from the sense of a divine presence in human experience. We will explore how this language of religious faith expresses a wide range of both negative and positive responses by those seeking a relationship with this divine presence, including fear, doubt, guilt, abandonment, ecstasy, gratefulness, hopefulness, and security. Our study of this phenomenon will yield insights into the relationship between psychology and spirituality. Sources will include the biblical books of Psalms and Job and contemporary Jewish and Christian poetry.
Fall JUDS0820 S02 17220 TTh 2:30-3:50(03) (D. Jacobson)

The modern engagement with the many ways that we construct identity has been matched by a similar wave of studies about identity construction in the ancient world. In this course we will discuss the rise of “Judaism” and “Jewish identity” in the ancient period (looking at roughly 400 BCE-200 CE), and compare it with the movement of the followers of Jesus as a negotiation of a new identity within Judaism (roughly 30 CE-200 CE). We will conclude with the question of the “Parting of the Ways” of these two groups.
Fall JUDS1601 S01 15818 T 4:00-6:30(09) (L. Wills)

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 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.
Spring JUDS1603 S01 24460 M 3:00-5:30(13) (L. Wills)

This seminar studies Jewish women in different temporal and geographical contexts, internally within their own communities and externally with other neighboring religious groups. Visual and material sources (iconography, artifacts, architectures, film) are examined in dialogue with texts (biblical and Talmudic writings, medieval and modern commentaries, contemporary literature) to explore the binary of male authority and female agency. Case studies will encompass the Middle East and Europe from antiquity to the present.
Spring JUDS1617 S02 24540 M 3:00-5:30(13) (K. Galor)

JUDS 1625. Problems in Israelite Religion and Ancient Judaism.
A series of topics in Israelite religion and ancient Judaism which are of current scholarly interest are explored in a seminar setting. Students are encouraged to read widely and pursue individual research interests. The course assumes a basic knowledge of biblical literature and scholarly criticism. Enrollment limited to 20.
Fall JUDS1625 S01 15817 TTh 2:30-3:50(04) (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.
Spring JUDS1711 S01 24463 W 3:00-5:30(10) (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.
Spr JUDS1713 S01 24461 T 4:00-6:30(17) (R. Rojanski)

JUDS 1722. Money, Power, Sex and Love: Gender and the Family in Modern Jewish History.
Traditional Jewish society was patriarchal, though the forms this power took changed over time. It was also limited, even subverted, by various roles played by women. Since Jewish family life was very much under the control of Jewish women, the family was another place where women were able to wield power. Examining the history of gender and family allows us to examine the limits of patriarchal control and construct a new, often surprising picture of how Jewish society actually functioned. It also sheds new light on how the various forms of modern Jewish family we recognize today grew and developed.
Spr JUDS1722 S01 24464 TTh 1:00-2:20(08) (A. Teller)

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.
Fall JUDS1726 S01 15818 T 3:00-5:30(05) (M. Gluck)

JUDS 1770. Individual Study Projects.
Section numbers vary by instructor. Please see Banner for the correct course reference number (CRN) to use when registering for this course.

Archaeological exploration in the “Holy Land” began in the mid-19th century and was motivated by the quest to discover the biblical sites. This region features among the most important visual and material remains connected to the origins of Judaism, Christianity, and Islam. This seminar will explore the relevant material remains from the Bronze Age through the end of the Ottoman period, and examine how these finds and their interpretations were shaped by religious and political motivations from the earliest endeavors to the present day.
Fall JUDS1774 S02 15909 T 4:00-6:30(09) (K. Galor)

JUDS 1775. 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 1776. 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.
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 0200 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.

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.

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 better understanding of 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.

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.

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.

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-skill 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.

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 childbirth, 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.

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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 introduces conversation, reading, and writing of modern standard English. Students improve their fluency and expression of complex ideas in a variety of linguistic situations typical of classroom interactions. Prerequisite: EINT 2100 or permission of the instructor.

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.

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). This is an advanced pronunciation tutorial for international students. Strong emphasis on the links between language and culture.

EINT 2500. Advanced Articulation Tutorial.
This course is an advanced pronunciation tutorial for international 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.

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.

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

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.

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.

EINT 2200. Academic Interactions.
EINT 2300. Negotiating an American Classroom.
EINT 2400. Speaking Professionally for Internationals.
EINT 2500. Advanced Articulation Tutorial.
HNDI 0100. Beginning Hindi or Urdu.
HNDI 0200. Beginning Hindi or Urdu.
HNDI 0300. Intermediate Hindi-Urdu.
HNDI 0400. Intermediate Hindi-Urdu.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
**PRSN 0500. Advanced Persian Language and Culture I.**
For students who have completed PRSN 0400 or have acquired language skills above the intermediate level through contact with Persian in other ways. The main goal of this course is to improve speaking, listening, reading and writing skills and promote exposure to the culture. It will enable students to expand their knowledge of the language by studying samples of modern and classical Persian literature in order to advance toward mastery of contemporary literature. The course will motivate students to communicate both in written and spoken Persian by utilizing the adequate grammatical order and correct vocabulary. Prerequisite: PRSN 0400.
Fall PRSN0500 S01 15425 TTh 2:30-3:50(03) (L. Anvar)

**PRSN 0600. Advanced Persian Language and Culture II.**
Designed for students who have completed PRSN 0500 or have acquired language skills above the advanced level through other means. The main goal of the course is to improve speaking, listening, reading and writing skills and promote exposure to the language and culture through in depth study of samples of Persian literature, history, journals, newspapers, radio and TV material to advance toward mastery of contemporary literature. Students will be motivated to communicate both in written and spoken Persian by utilizing adequate grammatical order and vocabulary. Activities will include poetry reading, informal gatherings and translation from and into Persian. Prerequisite: PRSN 0500.
Spr PRSN0600 S01 24917 TTh 2:30-3:50(11) (L. Anvar)

**PRSN 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.

**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 15.
Fall TKSH0100 S01 15431 T 12:00-12:50(15) (E. Ozdemir)
Fall TKSH0100 S01 15431 MWF 12:00-12:50(15) (E. Ozdemir)

**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.
Spr TKSH0200 S01 25360 MTWThF 12:00-12:50(05) (E. Ozdemir)

**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. There will be one additional hour TBD in consultation with the instructor and students.
Fall TKSH0300 S01 15432 MWF 9:00-9:50(01) (E. Ozdemir)

**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. There will be one additional hour TBD in consultation with the instructor and students.
Spr TKSH0400 S01 25363 MWF 9:00-9:50(02) (E. Ozdemir)

**Latin American and Caribbean Studies**

**LACA 0090A. The Border/La Frontera (ETHN 0090A).**
Interested students must register for ETHN 0090A.
Fall LACA0090A S01 17618 Arranged 'To Be Arranged'

**LACA 0210. Afro Latin Americans and Blackness in the Americas (AFRI 0210).**
Interested students must register for AFRI 0210.
Fall LACA0210 S01 17599 Arranged 'To Be Arranged'

**LACA 0500. Around Latin America in 80 Days: An Historical and Cultural Journey.**
This course will be constructed as a journey throughout the complex and diverse region of Latin America. By exploring the main geographical, historical, cultural and ethnic characteristics of this area of the globe, students will discover some critical junctures, and personalities that in the past centuries have defined Latin America as a unique, transnational and multilingual subcontinent. The course will be structured around three axes (foundational and modern myths, nation-building and cultural identities, and icons of popular culture) that will be explored from an interdisciplinary perspective, combining insights from the fields of archaeology, anthropology, arts, history, literature, and political science. The languages of instruction will be Spanish and English. Students will be expected to be able to conduct their readings in Spanish, when English translations of the reading material are not available, although during class discussion and assignments they will be permitted to use the language of their choice.
Spr LACA0500 S01 26046 TTh 1:00-2:20(08) (E. Durante)

**LACA 0510F. Fidel Castro and Che Guevara: The Men and the Myths (COLT 0510F).**
Interested students must register for COLT 0510F.
Fall LACA0510F S01 17617 Arranged 'To Be Arranged'

**LACA 0580M. The Age of Revolutions, 1760-1824 (HIST 0580M).**
Interested students must register for HIST 0580M.
Fall LACA0580M S01 17631 Arranged 'To Be Arranged'

**LACA 0610. Mapping Portuguese-Speaking Cultures: Brazil (POBS 0610).**
Interested students must register for POBS 0610.
Fall LACA0610 S01 17528 Arranged 'To Be Arranged'

**LACA 0670. Global Black Radicalism (AFRI 0670).**
Interested students must register for AFRI 0670.
Fall LACA0670 S01 17587 Arranged 'To Be Arranged'

**LACA 0710B. Hispanic Culture Through Cinema (HISP 0710B).**
Interested students must register for HISP 0710B.
Fall LACA0710B S01 17615 Arranged 'To Be Arranged'

**LACA 0710I. New Worlds: Reading Spaces and Places in Colonial Latin America (COLT 0710I).**
Interested students must register for COLT 0710I.
Fall LACA0710I S01 17623 Arranged 'To Be Arranged'

**LACA 0711. Brazilian Democracy in Literature and History (POBS 0711).**
Interested students must register for POBS 0711.
Fall LACA0711 S01 17610 Arranged 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
LACA 0730. Encounters: Latin American in its Literature and Culture (HISP 0730).
Interested students must register for HISP 0730.
Fall LACA0730 S01 17526 Arranged 'To Be Arranged'

LACA 0810. Belonging and Displacement: Cross-Cultural Identities (POBS 0810).
Interested students must register for POBS 0810.
Fall LACA0810 S01 17609 Arranged 'To Be Arranged'

Interested students must register for ANTH 1030.
Fall LACA1030 S01 17596 Arranged 'To Be Arranged'

LACA 1200D. Latina/o Literature (ETHN 1200D).
Interested students must register for ETHN 1200D.
Fall LACA1200D S01 17627 Arranged 'To Be Arranged'

LACA 1210. Afro-Brazilian and the Brazilian Polity (AFRI 1210).
Interested students must register for AFRI 1210.
Fall LACA1210 S01 17600 Arranged 'To Be Arranged'

LACA 1210A. Latin American Politics (POLS 1210).
Interested students must register for POLS 1210.
Fall LACA1210A S01 17597 Arranged 'To Be Arranged'

LACA 1281. Migration in the Americas (SOC 1281).
Interested students must register for SOC 1281.
Fall LACA1281 S01 17586 Arranged 'To Be Arranged'

LACA 1310. History of Brazil (HIST 1310).
Interested students must register for HIST 1310.
Fall LACA1310 S01 17605 Arranged 'To Be Arranged'

LACA 1320. Rebel Island: Cuba, 1492-Present (HIST 1320).
Interested students must register for HIST 1320.
Fall LACA1320 S01 17527 Arranged 'To Be Arranged'

LACA 1330Z. Tropical Fictions: Geography and Literature in Latin American Culture (HISP 1330Z).
Interested students must register for HISP 1330Z.
Fall LACA1330Z S01 17588 Arranged 'To Be Arranged'

LACA 1331. The Rise and Fall of the Aztecs: Mexico 1300-1600 (HIST 1331).
Interested students must register for HIST 1331.
Fall LACA1331 S01 17608 Arranged 'To Be Arranged'

LACA 1331E. Visions and Voices of Indigenous Mexico (HISP 1331E).
Interested students must register for HISP 1331E.
Fall LACA1331E S01 17607 Arranged 'To Be Arranged'

LACA 1333. The Mexican Revolution (HIST 1333).
Interested students must register for HIST 1333.
Fall LACA1333 S01 17620 Arranged 'To Be Arranged'

LACA 1340. History of the Andes from Incas to Evo Morales (HIST 1340).
Interested students must register for HIST 1340.
Fall LACA1340 S01 17632 Arranged 'To Be Arranged'

LACA 1503Q. Consuming the Cold War in the Caribbean.
How was the Cold War experienced in the Caribbean? How did refrigerators, automobiles, washing machines, stereos, and blue jeans become proxies of the world superpowers and mechanisms of impersonal rule in the hands of local regimes? How were Caribbean populations transformed by modernizing and developmentalist policies, and how did they resist the marketed allure of empires? Consuming the Cold War in the Caribbean answers these questions, exploring the politics of modern material and visual regimes in Cuba and the region during the post WWII era, addressing such regimes as mechanisms of soft power, impersonal rule, political critique, and resistance.
Fall LACA1503Q S01 17346 T 4:00-6:30(09) (M. Cabrera Arus)

LACA 1503S. Politics of Indigeneity in Brazil.
This course examines the politics of indigeneity in Brazil. First, it examines the relationship between native peoples and settlers, especially the Jesuits, Portuguese colonists, and the Portuguese Crown. Our purpose is to understand images of savagery and innocence as part of colonial imaginary in Brazilian’s imaginary about natives. Next, we will explore how indigenous peoples were understand by scientists and naturalists, and how these discussions are important in understanding notions about race in Brazil. Finally, we will examine the relationships between native peoples and the State during the Republic, with a focus on contemporary issues, such as development, the environment, and social movements.
Fall LACA1503S S01 17347 W 3:00-5:30(17) (E. Fernandes)

LACA 1504G. Latin American Environmental Humanities.
Latin America is one of the regions where the worldwide environmental crisis has manifested itself most forcefully over the past decades— with high levels of environmental toxicity, endangered species, and habitat loss. This course will introduce students to how artists, filmmakers, and writers are representing and raising awareness about key environmental issues in the region. The course is structured around five case studies: the desert, agriculture, oil extraction, water pollution, and waste management. The languages of instruction will be Spanish and English. When the reading material is not available in translation, students are expected to be able to read in Spanish.
Spr LACA1504G S01 26155 TTh 2:30-3:50(11) (N. Campisi)

LACA 1510I. Urban Latin America.
This course provides an introduction to the study of cities and urban life in modern Latin America. We will explore major themes in the past 200 years of Latin American urban life, with a particular focus on the perspectives of overlooked and subaltern actors. Some of the topics we will examine are urban slavery, informality, populism, migration and immigration, urban environments and ecology, queer/LGBTQ+ urban studies, urban planning and modernism, and social movements. By exploring cities during this broader historical period, we will trace the debates and shifting politics that have influenced urban research across multiple disciplines.
Spr LACA1510I S01 26188 TTh 4:00-6:30(16) (D. McDonald)

LACA 1520. Latin American Horror (GNSS 1520).
Interested students must register for GNSS 1520.
Fall LACA1520 S01 17164 Arranged 'To Be Arranged'

LACA 1560. Economic Development in Latin America (DEVL 1560).
Interested students must register for DEVL 1560.
Fall LACA1560 S01 17525 Arranged 'To Be Arranged'

LACA 1621. Material Culture Practicum (ANTH 1621).
Interested students must register for ANTH 1621.
Fall LACA1621 S01 17616 Arranged 'To Be Arranged'

LACA 1630. Engaged Humanities: Storytelling in the Americas.
This course explores the role of storytelling in the transmission of cultural narratives across societies in Latin America, the Caribbean and Latinx diaspora. We will examine a wide variety of stories as well as mediums (e.g., podcasts, photos, art works, textiles, and music) that are exemplary of this cultural transmission, and we will be exposed to practitioners from the local and international community who will share with us the insights. Students will be engaged in the art of storytelling through collaborative workshops, and will create their original narratives inspired by social and cultural issues of Latin American and Caribbean countries.
Spr LACA1630 S01 26267 W 3:00-5:30(10) (E. Durante)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
LACA 1711N. Monsters in our Midst: Reading Spaces and Places in Colonial Latin America (ENGL 1711N).
Interested students must register for ENGL 1711N.
Fall LACA1711NS01 17622 Arranged "To Be Arranged"

LACA 1803W. Roots of Crisis in Central America (INTL 1803W).
Interested students must register for INTL 1803W.
Fall LACA1803WS01 17624 Arranged "To Be Arranged"

This workshop is designed for junior and seniors in any concentration who are researching and writing about Latin America and the Caribbean. It will help students to enhance their research and organization skills, refine their research or creative projects, and develop or complete a Capstone Project (e.g. honors thesis, honors project, substantial research paper).
Fall LACA1900 S02 17179 T 4:00-6:30PM(09) (E. Durante)

LACA 1966Q. Colonial Encounters and the Creation of Latin America (HIST 1966Q).
Interested students must register for HIST 1966Q.
Fall LACA1966QS01 17598 Arranged "To Be Arranged"

Interested students must register for HIST 1967C.
Fall LACA1967CS01 17621 Arranged "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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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/N.C.
Fall LITR0110D S01 15672 T 4:00-6:30(09) (G. Smith)
Spr LITR0110D S02 26015 T 4:00-6:30(16) ‘To Be Arranged’

LITR 0110E. Screenwriting I.
This workshop introduces the fundamentals of screenwriting through a variety of readings, exercises and assignments. Our main focus will be on students’ writing, with particular emphasis on exploring the cinematic potential of your stories and themes, and on developing structures that best suit your material and intentions. This course is limited to undergraduates. S/N.C. Enrollment limited to 17.
Spr LITR0110E S01 25022 M 3:00-5:30(13) (L. Colella)
Spr LITR0110E S02 26011 M 6:00-8:30PM(14) (L. Colella)

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/N.C.
Fall LITR0210A S01 15670 T 4:00-6:30(09) (A. Reid)
Fall LITR0210A S02 15671 W 3:00-5:30(17) (L. Hunt)
Spr LITR0210A S01 25023 T 4:00-6:30(16) (A. Colarusso)
Spr LITR0210A S02 25024 W 6:00-8:30PM(14) ‘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/N.C.
Fall LITR0210B S01 15674 M 6:30-9:00PM(12) (C. Shields)
Spr LITR0210B S01 25025 M 6:00-8:30PM(14) ‘To Be Arranged’

LITR 0310M. Refusing Objecthood: Web-Based Language Art as Site.
This studio course addresses the history and practice of web-based language art, or literature/art made for and inseparable from the web. Web-based language art is space/place/landscape/setting/site; it is not held or beheld, but filled and inhabited. We focus on what this means for web-based language artists, especially those who occupy bodies that have not historically tended to own or control physical sites. Supplementary readings consider other site-building or site-altering language art practices and the materiality of the internet. Final projects will be web-based language artworks, for which participants are encouraged but not required to learn to code for the web.
Fall LITR0310M S01 17767 T 4:00-6:30(09) (T. Ballew)

LITR 0510C. The Pleasures of the Text.
Enter the radiance of literature, music and film through devotional readings, viewings and listening experiences that will result in a series of weekly creative writing experiments. Dissolve into a narrative or sound or image the way a writer might and return from these experiences inspired and changed. Be prepared for the awe and wonder that only art can afford. Texts may include stories, poems and/or novels by Adler, Baldwin, the Bible, Coetzee, Cortazar, Gluck, Muller, Munro, Morrison, Pancake, Rankine, Schwartz, Wolf and others. Films by Akerman, Anderson, Kurosawa and Herzog. Music by classical, jazz and hip-hop artists.
Fall LITR0510C S02 17773 T 12:00-2:30 (C. Maso)

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.
Fall LITR0710 S01 15675 Th 4:00-6:30(04) (A. Colarusso)
Spr LITR0710 S01 25026 Th 4:00-6:30(17) ‘To Be Arranged’

LITR 0999. Graphic Novels and Comic Masterworks.
Focused on the influence of graphic novels and comic art, this course examines graphic novels and comic art from seminal texts like Art Spiegelman’s Maus through a range of mainstream and independent comics from Marjane Satrapi, Grant Morrison, Alan Moore, David B., Lynda Barry, Daniel Clowes, Frank Miller, and many others, including graphic memoir, reportage, and Indie and DIY zines. The course explores image and language in collaboration, seeking a better understanding of this influential genre. Assignments are critical and creative, both individual and collaborative, and will involve daily reading and writing assignments. Enrollment limited to 20.
Spr LITR0999 S01 25225 T 4:00-6:30(16) (H. Moody)

LITR 1000. The Arts Workshop for Practice and Practice-Oriented Research.
This collaborative course will provide a forum for discussing in-progress creative research and practice. Offered jointly by the Brown Arts Initiative and Brown’s arts departments, the weekly workshop will host an interdisciplinary group of faculty, graduate students, and undergraduates. Each participant will apply with a specific creative practice/research project to be workshopped and developed during the course of the semester. In the semester following the seminar, participants will have access to production assistance from the BAI for further project development. The course requires an online application process, and successful applicants will be provided with instructor permission to enroll.
Fall LITR1000 S01 17374 T 10:30-1:00(13) (J. Cayley)

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/N.C.
Fall LITR1010A S01 16545 W 3:00-5:30(17) (L. Baker)
Spr LITR1010A S01 25028 W 3:00-5:30(10) (H. Moody)

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/N.C.
Fall LITR1010B S01 16546 M 3:00-5:30(05) (E. Sikilelanos)
Spr LITR1010B S01 25030 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.
Spr LITR1010D S01 25835 M 3:00-5:30(13) (J. Cayley)

LITR 1010E. Advanced Screenwriting.
Screenwriting for feature-length and episodic works. Participants should already have experience writing short screenplays and be prepared to develop a longer piece. See the Literary Arts Department website for course entry procedures for all advanced workshops. Work sample and instructor permission required. S/N.C.
Fall LITR1010E S01 17516 M 3:00-5:30(05) (L. Colella)

LITR 1110N. Workshop for Potential Literature.
A novel without the letter "E", 100,000-billion sonnets by permutation and rhyme. A novel without the letter "E", 100,000-billion sonnets by permutation and rhyme. Writing includes frequent exercises in various poetic traditions. 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 advanced workshops. Written permission required. S/N.C.
Fall LITR1110N S01 16587 M 3:00-5:30(05) (P. Nelson)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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/N.C.
Spr LITR1150B S01 25035 T 9:30-12:00(01) (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.
Fall LITR1150M S01 17673 T 9:30-12:00 (T. Field)
LITR 11510. Ideas of Narration Before Don Quixote
We shall read fictional narratives (and some narrative poetry) from the first moments of preserved literature up to Don Quixote, for clues about how earlier writers thought about form and narration. Of what was narrative fashion before “romance?” Before there was a science of psychology that could speak to the protagonists? What can we say about the diversity and unpredictability of early narrative writing, and how does that contrast with the more consistent look and feel of the nineteenth century? How can these “ancient fictions” inform an interest in narrative innovation and formal ingenuity today?
Fall LITR11510 S01 16713 T 4:00-6:30(09) (H. Moody)
LITR 1151S. Fan_Fic
Fan fiction is a thing, right? And, let’s be honest, we all secretly love this kinda thing! O, to relive those Microsoft ‘95 nights spent reading semi-imaginary tales of beloved childhood appropriates/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.
Fall LITR1151S S01 16987 Th 12:00-2:30(08) (S. Nakayasu)
LITR 1151X. Interdisciplinary Arts Workshop: Translation of Concept
Art-making is an act of translation -- a thought, process, question, object, declarative, desire, system, or intention is filtered through the artist and subsequently finds new existence in the form of art. This project-centered workshop is a cross-genre exploration of that filter, where participants working in differing genres will be asked to engage a wide range of materials to "translate" into their art-making process. Please be prepared to write, dance, sing, mix, draw, ask, reach, and fail, in and out of your comfort zone. Individual and collaborative work expected. For writers, dancers, architects, musicians, painters, digital artists, "non-artists.”
Written permission required.
Fall LITR1151X S01 16987 Th 12:00-2:30(08) (S. Nakayasu)
LITR 1151Y. Against Genre
An experimental workshop in creative writing hybridized with other forms--not only literary work that does not adhere to traditional genres, like prose-poetry, but writing that includes video, or music, or collage, and which includes practices like appropriation and non-traditional distribution. Including weekly reading assignments (Kenneth Goldsmith, Paul Metcalfe, W. G. Sebald, Robert Smithson, Vito Acconci, the Surrealists, Public Enemy/The Bomb Squad, Shelley Jackson, Thalia Field, etc.), weekly writing prompts, one oral presentation.
Fall LITR1151Y S01 16712 W 3:00-5:30(17) (H. Moody)
LITR 1152A. Survey of the Historic Avant-Garde
The avant-garde is a famously slippery category; the definition we’ll be working from, more or less, is the series of movements and individuals from 1900 to 1940, based mostly in Europe, that led culture and the arts in directions that talked back to power, pushed aesthetic limits outward, and explored ways to give the arts social and political weight. While largely focused on writers, we’ll also spend a lot of time with visual artists and other media and will address questions such the line between Modernism and the Avant-Garde and the roles of women in these movements.
Fall LITR1152A S01 17051 M 3:00-5:30(05) (C. Swensen)
LITR 1152B. Ekphrasis in Action
Ekphrasis, according to its most basic definition, is simply poetry that addresses art; we’ll be stretching that definition, making it into a way of interacting with art and even into a way of looking at things in the world that makes them into art. We’ll be visiting art in action, from painting studios to dance rehearsals to a natural history museum, using these visits as premises for writing that we will then share in a workshop format, giving copious feedback. The whole will be supported by readings of theoretical and creative works that address ekphrasis.
Fall LITR1152B S01 17052 T 10:30-1:00(13) (C. Swensen)
LITR 1152C. Writers-in-the-Community Training & Residencies
This course will operate mostly “in the field.” We will spend some weeks discussing pedagogical approaches to teaching creative writing in community settings. We will thereafter train in residence, observing a poetry residency at a local elementary school, with visits to other community settings as well (sites to be determined). We will continue to discuss pedagogy, classroom practices and management, administrator-writer relations, and all other necessary logistical planning throughout the semester. By week 7, students will engage in their own writing residencies in pairs or small teams, working in a community setting of their choosing (K-12 school, shelter, library, etc.).
Spr LITR1152C S01 25668 Arranged(10) (E. Sikelianos)
LITR 1152D. Islands of the Mind (HIST 1964s)
Interested students must register for HIST 1964s.
Fall LITR1152D S01 17246 Arranged ‘To Be Arranged’
LITR 1152E. Between the Seams: Hybrid Works
Michael Ondaatje’s The Collected Works Of Billy The Kid is part novel, part poetry sequence, and visual collage; Anne Carson’s Autobiography of Red is novel and poem. If, as Georges Bataille has put it, literature is a series of dislocations rather than a continuum, these “hybrid” works and others mark important breaks in the literary status quo. We will take inspiration from writing in which structures rub up against each other. Using poetry and prose, we’ll seek intuitive logics in juxtaposition of text and image, and look at writers using hybrid forms as models for documenting ways of knowing and unknowing.
Fall LITR1152E S01 17749 W 3:00-5:30(17) (E. Sikelianos)
LITR 1152H. Writing from the Archives/In the Subjunctive Mood
Memory, history, and trace haunt the present, perception, and the cultural contexts in which we live. When we turn to the archival record, we note its focus on the powerful, and its critical exclusion of Black, Brown, Indigenous, and LGBTQ people, people with disabilities, and “wild” women.
A growing number of writers employ new means to open the lens to render the present more clearly through counter-narrative, critical fabulation, and reparative technique. We will read and write in this vein toward a new poetics of archive and study methods that give attention to the “unrecorded” incident, emotion, image, and music.
Fall LITR1152H S01 17917 T 4:00-6:30(09) ‘To Be Arranged’
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 16668 Th 4:00-6:30(04) (L. Hunt)
Spr LITR1200 S01 25027 Th 4:00-6:30(17) (K. Mahajan)
LITR 1230V. Why Don’t We Fall in Love?
We focus here on intersections of the erotic and poetry. How do we fall in love? Why? Will we explore joy and happiness, love and lust, devotion and seduction. We will also, unfortunately, explore longing, heartbreak, jealousy, unwanted love. We will explore, through literature and film, the age old enigma that prompted Ruth Stone to proclaim, “there is no choice among the voices / of love...”
Spr LITR1230V S01 25930 M 3:00-5:30(13) (A. Colarusso)

LITR 1230Y. Structuring (and De-Structuring) Novels: Special Topics Literature Seminar.
How to structure a novel? This is a question most novelists approach with dread, because, a) all the good plots and structures have been used up; b) plots can feel annoying anyway, like a capitulation to cinema or theater; and c) nevertheless, it is impossible to write in total darkness. We’ll dispel this darkness by reading works by Kazuo Ishiguro, Helen DeWitt, Muriel Spark, hisham Matar, Arundhati Roy, and others. How do these authors strike a balance between complex thought and elegant/unusual structure? And how can we, as writers, maintain narrative coherence over the course of hundreds of pages?
Spr LITR1230Y S01 26240 W 3:00-5:30(10) (K. Mahajan)

LITR 1231J. Histories.
Historical figures like Herodotus, Hannibal, Billy the Kid and Calamity Jane have all served as energy nodes around which writers have built significant works of prose. In this seminar we will examine texts like Michael Ondaatje’s Coming Through Slaughter, Toni Morrison’s Beloved and W.G. Sebald’s The Emigrants as part of an exploration of that prose which, if we can kick awake that poor overworked pearl, posits the historical as its grain of sand. Students can expect a substantial weekly reading load of primary and secondary source material and should come to each class prepared to discuss the assigned texts.
Spr LITR1231J S01 25931 W 3:00-5:30(10) (L. Hunt)

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 25033 Th 10:30-1:00(09) (L. Baker)

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 16547 M 12:00-2:30(15) (K. Mahajan)
Spr LITR2010A S01 25029 M 12:00-2:30(05) (L. Hunt)

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 16549 W 12:00-2:30(15) "To Be Arranged"
Spr LITR2010B S01 25031 W 12:00-2:30(05) (C. Swensen)

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.

LITR 2700. Pedagogy Seminar.
The Pedagogy Seminar examines ideas about teaching in a literary arts/creative writing environment. The pros and cons of the “workshop”-style will be discussed alongside alternative models, and general topics of exploration will include: creative process pedagogy, writing-to-learn, multi-genre approaches, uses of readings/research, and general classroom management. Designing an inclusive classroom and syllabus as well as exploring generative and innovative practices will be covered as well. A special emphasis will be on preparing students to feel confident and to explore a range of creative process issues. Personal writing as well as syllabus design will be expected.
Spr LITR2700 S01 26114 Th 1:10-2:30(08) (C. Maso)

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 16381 Th 10:30-11:50(13) (O. Mandelshtam)

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 25273 MW 10:00-10:50(03) "To Be Arranged"

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, and their applications. S/NC only.
Fall MATH0070 S01 16382 Th 9:00-10:20(02) (A. Landman)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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, trigonometric functions, and exponential functions. Introduction to integration with applications to area and volumes of revolution. MATH 0090 and MATH 0100 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 MATH0090 S01 16386 MWF 9:00-9:50(04) (K. Ferendo)
Fall MATH0090 S02 16387 MWF 10:00-10:50(04) (Y. Hsu)
Fall MATH0090 S03 16388 MWF 12:00-12:50(04) (Y. Hsu)
Fall MATH0090 S04 16389 MWF 1:00-1:50(04) (S. Obinna)
Fall MATH0090 S05 16390 MWF 2:00-2:50(04) (L. Baeza)
Spr MATH0090 S01 25275 MWF 11:00-11:50(16) (D. Katz)
Spr MATH0090 S02 25277 MWF 2:00-2:50(16) '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.

Fall MATH100 S01 16401 MWF 9:00-9:50(11) (H. Yun)
Fall MATH100 S02 16402 MWF 11:00-11:50(11) (D. Katz)
Fall MATH100 S03 16403 MWF 12:00-12:50(11) (J. Li)
Fall MATH100 S04 16404 MWF 1:00-1:50(11) (A. Li)
Fall MATH100 S05 16405 TTh 1:00-2:20(11) (M. Han)
Spr MATH100 S01 25282 MWF 9:00-9:50(12) 'To Be Arranged'
Spr MATH100 S02 25285 MWF 11:00-11:50(12) 'To Be Arranged'
Spr MATH100 S03 25286 MWF 12:00-12:50(12) 'To Be Arranged'
Spr MATH100 S04 25287 MWF 2:00-2:50(12) 'To Be Arranged'

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 MATH180 S01 16416 MWF 9:00-9:50(11) (M. Ivanov)
Fall MATH180 S02 16417 MWF 10:00-10:50(11) (D. Katz)
Fall MATH180 S03 16418 MWF 12:00-12:50(11) (A. Mcdonough)
Spr MATH180 S01 25296 MWF 10:00-10:50(12) (D. Katz)
Spr MATH180 S02 25298 MWF 12:00-12:50(12) (H. Nguyen)
Spr MATH180 S03 25299 MWF 2:00-2:50(12) (H. Nguyen)

MATH 0190. Advanced Placement Calculus (Physics/Engineering). Covers roughly the same material and has the same prerequisites as MATH 0170, but is intended for students with a special interest in physics or engineering. The main topics are: calculus of vectors and paths in two and three dimensions; differential equations of the first and second order; and infinite series, including power series and Fourier series. The extra hour is a weekly problem session.

Fall MATH190 S01 16423 MWF 11:00-11:50(11) (J. Kostiuk)
Fall MATH190 S02 16424 MWF 9:00-9:50(11) (Z. Liang)

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 MATH200 S01 16428 MWF 12:00-12:50(11) (T. Ge)
Fall MATH200 S02 16429 MWF 2:00-2:50(11) (Y. Hsu)
Fall MATH200 S03 16430 TTh 2:30-3:50(11) (O. Mandelshtam)
Spr MATH200 S01 25304 MWF 9:00-9:50(12) 'To Be Arranged'
Spr MATH200 S02 25305 MWF 12:00-12:50(12) 'To Be Arranged'
Spr MATH200 S03 25306 MWF 1:00-1:50(12) '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 MATH350 S01 16435 MWF 11:00-11:50(11) (B. Cole)
Fall MATH350 S02 16436 MWF 2:00-2:50(11) (D. Abramovich)

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 MATH420 S01 25311 MWF 10:00-10:50(03) (J. Kostiuk)

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 modeling 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 0100 or equivalent. May not be taken in addition to MATH 0540.

Fall MATH520 S01 16437 MWF 12:00-12:50(04) (S. Kakaroumpas)
Fall MATH520 S02 16438 TTh 9:00-10:20(04) (J. Usatine)
Fall MATH520 S03 16439 TTh 10:30-11:50(04) (J. Usatine)
Spr MATH520 S01 25312 MWF 9:00-9:50(16) 'To Be Arranged'
Spr MATH520 S02 25313 MWF 12:00-12:50(16) 'To Be Arranged'
Spr MATH520 S03 25314 TTh 9:00-10:20(16) (A. Landman)
Spr MATH520 S04 25315 TTh 10:30-11:50(16) 'To Be Arranged'
Spr MATH520 S05 25316 TTh 1:00-2:20(16) 'To Be Arranged'

MATH 0540. Honors Linear Algebra. Linear algebra for students of greater aptitude and motivation, especially mathematics and science concentrators with a good mathematical preparation. Matrices, linear equations, determinants, and eigenvalues; vector spaces and linear transformations; inner products; Hermitian, orthogonal, and unitary matrices; and Jordan normal forms. Provides a more extensive treatment of the topics in MATH 0520. Recommended prerequisites: MATH 0100 or equivalent.

Fall MATH450 S01 16440 MWF 1:00-1:50(16) (R. Ramadas)
Fall MATH450 S02 16441 TTh 2:30-3:50(16) (A. Landman)
Spr MATH450 S01 25317 TTh 10:30-11:50(16) (J. Silverman)
Spr MATH450 S02 25318 TTh 2:30-3:50(16) (A. Landman)

MATH 0750. Introduction to Higher Mathematics. This year-long class will expose students to six fundamental areas of mathematics. It will be team taught by six members of the faculty. Fall topics will include logic, combinatorics, and analysis. Spring topics will include number theory, algebra, and geometry. Approximately 4 weeks will be devoted to each topic.

Fall MATH0750 S01 16442 TTh 1:00-2:20(08) (M. Chan)

MATH 0760. Introduction to Higher Mathematics. This year-long class will expose students to six fundamental areas of mathematics. It will be team taught by six members of the faculty. Fall topics will include logic, combinatorics, and analysis. Spring topics will include number theory, algebra, and geometry. Approximately 4 weeks will be devoted to each topic.

Spr MATH0760 S01 25319 TTh 1:00-2:20(08) 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 25320 MWF 2:00-2:50(07) (J. Kostiuk)

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 facts which underlie them. Prerequisite: MA 0520, MA 0540, or permission of the instructor.
Spr MATH1040 S01 25321 TTh 10:30-11:50(09) 'To Be Arranged'

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 16443 MWF 10:30-11:50(13) (G. Daskalopoulos)

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 16444 T 2:30-3:50(03) (H. Nguyen)

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. Prerequisite: MATH 1530 or MATH 0540, or instructor permission.
Spr MATH1120 S01 25322 TTh 2:30-3:50(11) (N. Kapouleas)

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 16445 MWF 10:00-10:50(14) (J. Holmer)

MATH 1140. Functions Of Several Variables.
See Functions Of Several Variables (MATH 1130) for course description. Prerequisite: MATH 1130 or instructor permission.
Spr MATH1140 S01 25323 MWF 1:00-1:50(08) (B. Cole)

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 25327 TTh 2:30-3:50(11) (R. Schwartz)

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 16446 TTh 1:00-2:20(08) (J. Kahn)

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.
Spr MATH1410 S01 25914 TTh 9:00-10:20(01) 'To Be Arranged'

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 16449 MWF 11:00-11:50(16) (J. Silverman)
Spr MATH1530 S01 25324 MWF 11:00-11:50(04) (R. Ramadas)

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 25325 TTh 10:30-11:50(09) (T. Goodwillie)

MATH 1550. 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 MATH1550 S01 25326 TTh 1:00-2:20(08) 'To Be Arranged'

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 16450 MWF 10:00-10:50(14) (R. Ramadas)

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 16451 MWF 1:00-1:50(06) (J. Holmer)

MATH 1620. Mathematical Statistics.
This course covers the basics of mathematical statistics and applications to data analysis, pattern recognition and machine learning. Estimation, hypothesis testing, classification and regression using linear models, tree-based methods, support vector machines, and neural networks, with other subjects as time permits.
Spr MATH1620 S01 25335 MWF 1:00-1:50(06) (J. Holmer)

MATH 1910. Race and Gender in the Scientific Community.
This course examines (1) disparities in representation in the scientific community, (2) issues facing different groups in the sciences, and (3) paths towards a more inclusive scientific environment. We will delve into the current statistics on racial and gender demographics in the sciences and explore their background through texts dealing with the history, philosophy, and sociology of science. We will also explore the specific problems faced by underrepresented and well-represented racial minorities, women, and LGBTQ community members. The course is reading-intensive and discussion-based.
Spr MATH1910 S01 26143 TTh 2:30-3:50(11) (T. Goodwillie)

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 25328 TTh 9:00-10:20(01) (G. Daskalopoulos)

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 16452 MWF 2:00-2:50(07) (M. Chan)

MATH 2060. Algebraic Geometry.
See Algebraic Geometry (MATH 2050) for course description.
Spr MATH2060 S01 25329 MWF 10:00-10:50(03) (D. Abramovich)

MATH 2110. Introduction to Manifolds.
Inverse Function Theorem, manifolds and submanifolds, tangent and cotangent bundles, transversality, flows and vector fields, Frobenius Theorem, vector bundles, tensors and differential forms, Sard's Theorem, introduction to Lie groups.
Fall MATH2110 S01 16453 TTh 1:00-2:20(08) (N. Kapouleas)

MATH 2210. Real Function Theory.
Real numbers, outer measures, measures, Lebesgue measure, integrals of measurable functions, Holder and Minkowski inequalities, modes of convergence, L^p spaces, product measures, Fubini's Theorem, signed measures, Radon-Nikodym theorem, dual space of L^p and of C, Hausdorff measure.
Fall MATH2210 S01 16454 MWF 11:00-11:50(16) (B. Pausader)

MATH 2220. Real Function Theory.
The basics of Hilbert space theory, including orthogonal projections, the Riesz representation theorem, and compact operators. The basics of Banach space theory, including the open mapping theorem, closed graph theorem, uniform boundedness principle, Hahn-Banach theorem, Riesz representation theorem (pertaining to the dual of C_0(X)), weak and weak-star topologies. Various additional topics, possibly including Fourier series, Fourier transform, ergodic theorems, distribution theory, and the spectral theory of linear operators.
Spr MATH2220 S01 25330 MWF 11:00-11:50(04) (B. Pausader)

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 16455 MWF 1:00-1:50(06) (S. Treil)

MATH 2260. Complex Function Theory.
See Complex Function Theory (MATH 2250) for course description.
Spr MATH2260 S01 25331 TTh 1:00-2:20(08) (J. Kahn)

MATH 2410. Topology.
An introduction to algebraic topology. Topics include fundamental group, covering spaces, simplicial and singular homology, CW complexes, and an introduction to cohomology.
Fall MATH2410 S01 16456 TTh 9:00-10:20(02) (B. Tshishiku)

MATH 2420. Algebraic Topology.
This is a continuation of MATH 2410. Topics include cohomology, cup products, Poincare duality, and other topics chosen by the instructor.
Spr MATH2420 S01 25332 TTh 9:00-10:20(01) 'To Be Arranged'

MATH 2450. Exchange Scholar Program.
Fall MATH2450 S01 15312 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 16457 TTh 2:30-3:50(03) (T. Goodwillie)

MATH 2520. Algebra.
See Algebra (MATH 2510) for course description.
Spr MATH2520 S01 25336 MWF 1:00-1:50(06) (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 16458 TTh 10:30-11:50(13) (J. Hoffstein)

MATH 2540. Number Theory.
See Number Theory (MATH 2530) for course description.
Spr MATH2540 S01 25333 TTh 2:30-3:50(11) (J. Hoffstein)

MATH 2710V. Geometry and Illustration.
Graduate topics course in geometry and illustration.
Fall MATH2710V S01 17809 TTh 1:00-2:20(08) (R. Schwartz)

MATH 2720F. Topics in Geometric Analysis.
No description available.
Spr MATH2720F S01 25334 Arranged 'To Be Arranged'

MATH 2970. Preliminary Exam Preparation.
No description available.
Fall MATH2970 S01 15313 Arranged 'To Be Arranged'
Spr MATH2970 S01 24202 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 residency requirement and are continuing research on a full time basis.
Fall MATH2990 S01 15314 Arranged 'To Be Arranged'
Spr MATH2990 S01 24203 Arranged 'To Be Arranged'

MDVL0310G. Matters of Romance (ENGL 0100D)
Interested students must register for ENGL 0310G.

MDVL 0310G. Gender and Genre in Medieval Celtic Literatures (ENGL 0310G)
Interested students must register for ENGL 0310G.
Spr MATH2990 S01 25336 Arranged 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
MDVL 0360. Cities: Medieval Perspectives.
Where did our modern cities come from? How does the medieval city still live in modernity? In this course, we study histories of cities, their making, transformation, or disappearance, through the lens of a series of medieval urban centers (such as Rome, London, Damascus, Constantinople/Istanbul, and Toledo), some of which had a continued existence into the modern world. We will focus on such topics as: the end of ancient cities; religious beliefs, conflict, and tolerance; the city and its margins; citizens and foreigners; societies without cities; book culture and bureaucracy; the city as metaphor; sex (and romance) and the city.
Spr MDVL0360 S01 26097 W 3:00-5:30(10) (M. Vaquero)

MDVL 1360H. Introduction to the Old English Language (ENGL 1360H).
Interested students must register for ENGL 1360H.
Spr MDVL1360H-S01 25876 Arranged "To Be Arranged"

MDVL 1360J. Middle English Literature (ENGL 1360J).
Interested students must register for ENGL 1360J.
Fall MDVL1360J S01 17289 Arranged "To Be Arranged"

MDVL 1361D. Women's Voices in Medieval Literature (ENGL 1361D).
Interested students must register for ENGL 1361D.
Fall MDVL1361D S01 17290 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 2361C. Books of Love: Ruiz + Chaucer (ENGL 2361C or HISP 2030I).
Interested students must register for ENGL 2361C or HISP 2030I.
Spr MDVL2361C S01 25955 Arranged "To Be Arranged"

Middle East Studies

MES 0100. The Middle East: Cultures & Societies.
This course highlights major cultural, social, and political developments in the amorphous region known, since the 20th century, as the Middle East. Covering expanses of space and time, this course attends to a diversity of peoples and polities, and considers different regional concepts that include some or all of the territories normally included in the Middle East (including the Fertile Crescent, the Mediterranean world, the Indian Ocean world, the Arab world, and the Muslim world) and addresses the region's coherence in terms of shared historical and political experiences, religious and cultural references or practices, and/or socialities and ways of being.
Spr MES0100 S01 25843 MW 10:00-10:50(03) (A. Winder)

This course explores the city as physical and metaphorical space and aggregator of possibilities. It focuses on Tehran, in its historical, geographical, artistic and virtual specificity, and artists who have lived there, including: Kamal-al-molk (and his followers in the early twentieth century; artists associated with Saqqakhaneh (modern school of art) at mid-twentieth-century; artists of the Revolution and the Iran-Iraq war in the 1980s and 1990s, and contemporary urban and transnational artists. By examining urban participation, aesthetics, and politics in Tehran across more than a century, the course provokes critical reflection on experience and representations of urban space, citizenry and creativity.
Fall MES1120 S01 17895 TTh 1:00-2:20(08) (S. Tabatabaiei)

MES 1150. Labor and the Long Downturn in the Middle East.
This course examines the question of labor in the contemporary Middle East. The 1970s saw a global economy defined increasingly by deindustrialization, intensified competition, financialization, and squeezes on profitability. For workers, these changes meant that technological development, agrarian change, debt, and increasing precarity have transformed who works, where they work, and the sorts of politics that work (or its absence) gives rise to. This course examines these wider concerns within the context of the Middle East. Through a focus on social history and ethnographic accounts, it illuminates the ways different groups of workers experience and grapple with these broader transformations.
Spr MES1150 S01 26284 TTh 2:30-3:50(11) (P. Kohbry)

This seminar seeks to achieve three interrelated goals: to introduce students to the condition of statelessness experienced by two ethnic groups in the Middle East, the Kurdish and Palestinian peoples; to examine the contours and potency of, and the problems associated with, the concept of statelessness; and to offer the production and management of statelessness as a viable perspective for the study of the modern Middle East. We look for analogies and distinctions between the two cases, and qualify and multiply the condition of statelessness for each, guided by categories of Nation, State, Nationalism, Colonization, Settler Colonialism, Citizenship, and Precariouslyness.
Spr MES1250 S01 26158 W 3:00-5:30(10) (A. Ophir)

MES 1968. Approaches to the Middle East (HIST 1968A).
Interested students must register for HIST 1968A.
Fall MES1968 S01 17125 Arranged "To Be Arranged"

Limited to juniors and seniors. Section numbers vary by instructor. Please check Banner for the correct section and CRN to use when registering for this course. Required: all proposals for independent study must be approved by the faculty sponsor and the MES program director. Students should not register for any section of MES 1970 without this approval.

The purpose of this course is to guide you through the development and construction of your senior thesis project. It will provide you with empirical, methodological, and theoretical toolkits, as well as practical writing strategies, to help you bring your thesis to fruition. At the end of the semester, students will submit a written proposal for their thesis, and the faculty sponsor and MES program director will review their plans. After you have obtained approval from the faculty sponsor and the MES program director, students will register for a section of this course in the spring semester, guided by categories of Nation, State, Nationalism, Colonization, Settler Colonialism, Citizenship, and Precariouslyness.
Open only to Senior students pursuing honors in Middle East Studies. Instructor permission required.

This study grapples with conceptions of freedom and humanity emergent in Black and Indigenous women's practices under empire. Colonialism is prefaced on construction of an “other.” Aime Cesaire refers to this as “thingification,” whereby colonial subjects are dehumanized and the colonizer “decivilized.” 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.
This introductory course will explore its 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 elaborate. We will read semiotic theory, critical race studies, feminist, post-colonial, queer and political theory, and examine concepts such as textuality, visibility, and narratives. Open to undergraduates only.

MCM 0230. Digital Media.
This course introduces students to the critical study of digital media: from surveillance to activism, 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.

MCM 0250. Visuality and Visual Theories.
How do we see the world? Not only through our own eyes but through the eyes of others and with the mediation of technologies, perspectives, and points of view, giving us an embedded language to interpret what we see. In the last centuries, this construction of our visual field has been heavily indebted to imperial and racial capitalist modes of production. We will examine these constructions through a variety of technological devices: the camera obscura, panorama, photography, and cinema, and their use in processes of colonization and decolonization, drawing on the case of Algeria and other cases as well.

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.

MCM 0700B. Mediating the Live: Making and Documenting Performance Art.
This course focuses on performance art and how artists use recording technologies to document their acts. We will look at key examples of performance art from the past five decades to understand how artists have explored gesture, movement, conduct, speech, embodiment. Documentation is especially important to performance because of the ephemeral nature of the art form. While the performance document is not the same as the performance, it is central to our understanding of the medium and often intrinsic to the works themselves. Students will experiment with various presentation platforms and recording technologies to understand their relationship to performance art.

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.

MCM 0730C. Foundation Media (VISA 0120).
Interested students must register for VISA 0120.

MCM 0750C. Subtle Machines: Designing for Engagement and Response-Able.
We will build novel individual and collaborative extensions enabling engagement in dialogues and in structures of communication otherwise difficult due to social, political, technological, habitual, and/or unavowable circumstances. Students will develop individual and collective hypotheses, project plans, built apparatuses and systems, actions and performances. We will read and discuss excerpts from Donna Haraway’s Staying with the Trouble, Maurice Merleau-Ponty’s Phenomenology of Perception, D. W. Winnicott’s Playing and Reality, and Karen Barad’s Meeting the Universe Halfway. We will build with familiar and experimental electronic and other materials. Work may occasion collaboration with multiple departments at Brown as well as more broadly.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Interested students must register for GNSS 1520.

Interested students must register for ITAL 1350A.

Interested students must register for MCM 1204L. Transmedia Storytelling and the New Italian Epic (ITAL 1350A)

Interested students must register for EAST 1070.

Interested students must register for COLT 1815J.

Interested students must register for GNSS 1720.

Interested students must register for ENGL 1762D.

Interested students must register for COLT 1440P.

Interested students must register for COLT 1440P.

Interested students must register for GNSS 1720.

Interested students must register for ENGL 1762D.

Interested students must register for GNSS 1720.

Interested students must register for COLT 1815J.

Interested students must register for COLT 1440W.

Interested students must register for COLT 1440W.

Interested students must register for GNSS 1520.
MCM 1506H. Inoperative Selves (ENGL 1950L). Interested students must register ENGL 1950L. Spr  MCM1506H S01 25952 Arranged 'To Be Arranged'

MCM 1506I. Digital Worlding: Terraforming Future, Fact, Fiction and Fabulation. Inspired by Marilyn Strathern's concept of 'worlding,' this production course, will speculate on technologies of the future as a way to address the present. We'll work in the game designing platform, Unity, Adobe Premiere, and Photoshop to fabricate and co-create our worlds. Although not a gaming course, tools, theories, and vernaculars of game design may be utilized/subverted. Expect readings, discussions, technical workshops, and weekly assignments leading to a final project. "Art in the biological, ecological, and cyborg modes are all aspects of worlding. We cannot denounce the world in the name of an ideal world" - Donna Haraway Spr  MCM17011 S01 24543 W 9:00-11:50(03) (M. Armstrong)

MCM 1506J. Representing Sexuality and Gender on Screen. Representing Sexuality and Gender On Screen explores the relationship between censorship and self-expression, with a particular focus on queer and feminist readings of Hollywood cinema and the history of the adult film and video industry in the United States. Students will learn queer and feminist reading strategies, performative strategies of resistance, and artistic movements including the New Queer Cinema within the histories of regulation that shaped them. from the Motion Picture Production Code, to the ratings system, to SESTA-FOSTA. Fall  MCM1506J S01 17861 F 3:00-5:30(11) (P. Pozo)

MCM 1506K. Image, Spectacle, Everyday Life. In 1967, Guy Debord famously declared that we inhabit a "society of the spectacle," a society in which images dominate everyday life. In the decades since, this state of affairs seems only to have intensified. Yet how exactly might we understand spectacle today? How, given our current social and political climate, might we conceive spectacle's role in shaping our ideas and perceptions? Foregrounding cinema but also examining television and new media, we will consider these questions in broad historical perspective, emphasizing in turn both the wide-ranging political implications of spectacle and the critical counter-practices that have arisen to contest it. Fall  MCM1506K S01 17663 W 3:00-5:30(17) (K. Berger)

MCM 1700D. Reframing Documentary Production: Concepts and Questions. An advanced seminar for students of video and/or film production. Focuses on the critical discussion and production of documentary media. A major project (10-20 minutes), three shorter works, and in-class presentations of work-in-progress required. Readings on the theory and practice of the form and weekly screenings augment the presentation of student work. Class members should have completed at least one time-based media class. Students are expected to be competent technically. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. Fall  MCM1700D S01 15904 W 10:00-12:50(14) (A. Cokes)

MCM 1701E. Experimental Narrative. With film well into its 2nd century, a large body of work has emerged that plays with, around, and against conventions of classical cinema. Specifically, what we understand to be traditional narrative structures, such as drama, documentary, and action films. In fact, experimental narrative now has some of its own genres, which are to be found in both mainstream and fringe media. The goal of this class is to investigate some of these forms of experimental narrative. It is predicated on a basic understanding of narrative conventions, and designed to encourage students to make work that challenges those conventions. Spr  MCM1701E S01 24541 W 2:00-4:50(07) (J. Montgomery)

MCM 1701G. Text in Time-based Art. Semiotics has taught us to regard each film as a text. What, then, is the role of written text in film? This advanced production seminar explores the interplay of film’s desire to image language and language’s desire to produce images, not to mention the temporal constraints placed on reading when it is no longer a private, self-regulated activity. We will consider text as a purely visual character, the impact of subtitles, television’s gluttonous use of text, and film’s appropriation of literary forms. In addition to screenings and readings, students will create their own instantiations of written language in time-based art. Fall  MCM1701G S01 15907 W 2:00-4:50(07) (J. Montgomery)

MCM 1701L. Time Deformation (VISA 1740). Interested students must register for VISA 1740. Fall  MCM1701L S01 17406 Arranged 'To Be Arranged'

MCM 1701N. Advanced Digital Language Arts (LITR 1010D). Interested students must register for LITR 1010D. Spr  MCM1701N S01 25956 Arranged 'To Be Arranged'

MCM 1701O. The Arts Workshop for Practice and Practice-Oriented Research (LITR 1000). Interested students must register for LITR 1000. Fall  MCM1701O S01 17519 Arranged 'To Be Arranged'

MCM 1970. Directed Research: 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. 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 2100X. What is Reality, Now?. The question of reality has emerged recently with renewed force and sporting a speculative edge. Philosophers are abandoning their hostility to science without going so far as to embrace vulgar materialism. How are these gyrations of thought held together? What are the stakes of this new line of inquiry for the human subject? For esthetics? For politics? Spr  MCM2100X S01 24618 T 1:20-3:50(08) (J. Copjec)

MCM 2110T. The Contingency of Critique. Contemporary debates about the nature and status, affects and effects, of critique resonate across the disciplines and beyond. They raise questions of reading and form, ontology and determination, subjectivity and politics. This course takes the notion of surprise as one of the more consistently cited values of the post-critical turn. On this view, critique is the enemy of surprise. Suspicious, dogmatic, grimly predictable: it is incapable of and hostile towards surprise. We will trace the emergence this account and the work of surprise and its cognates (contingency, indeterminacy, play, discontinuity) in critical and postcritical texts. Fall  MCM2110T S01 16087 Th 4:00-6:30(04) (E. Rooney)
MCM 2120N. Critical Theories of Mass Media
The rise of mass media from print to social media was accompanied by critical discourses that emphasized both euphoric acclamation for the new media and emphatic warnings about the dangers. We will discuss how these critiques are conceptualized in terms of culture, media and of mass in three blocks, each based on the emergence of a specific medium and its technology. The main focus is the reconstruction of basic notions in the critique of mass media and the analysis of specific works by Adorno, Benjamin, Kraeauer, Dewey, Lipman and others.
Fall MCM2120N S01 16532 M 3:00-5:30(05) (G. Koch)

MCM 2300L. Popular Music Studies (AMST 2220R).
Interested students must register for AMST 2220R.
Spring MCM2300L S01 25927 "To Be Arranged"

MCM 2310O. The Visual Frequency of Black Life.
How does one represent black life? Historical and contemporary black photo books offer densely layered accounts of blackness and black sociality that, far from restricted to the visual, are haptic and sonic engagements and improvisations. Placing these works in conversation with sonic scripts, embodied performances, and moving images inspired by and in dialogue with them, we will unpack multiple visual frequencies of black life with an eye toward understanding practices of black refusal and futurity that structure their varied creative practices. This collaborative seminar is taught in parallel by Tina Campt at Brown University and Saidiya Hartman at Columbia University.
Spring MCM2310O S01 24620 Th 4:00-6:30(17) (T. Campt)

MCM 2450. Exchange Scholar Program.
Fall MCM2450 S01 15315 "To Be Arranged"
Spring MCM2450 S01 29797 W 3:00-5:30(10) (L. Wang)

MCM 2510L. Italian Thought: Inside and Out (HMAN 2400U).
Interested students must register for HMAN 2400U.
Spring MCM2510L S01 25908 "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).
Spring MCM2980 S01 15316 "To Be Arranged"

MCM 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall MCM2990 S01 15316 "To Be Arranged"
Spring MCM2990 S01 24204 "To Be Arranged"

MUSC 0021B. Reading Jazz.
This course will explore the musical aesthetics of jazz in texts about its world. Students will listen to music and read poetry, fiction, autobiography and criticism to investigate techniques (including improvisation, rhythm, timbre and articulation), which authors such as Langston Hughes, Ralph Ellison, Charles Mingus, Stanley Crouch and Jack Kerouac employed to describe and support a creative community. Enrollment limited to 19 first year students.
Fall MUSC0021ES01 16701 Th 4:00-6:30(04) (M. McGarrell)

MUSC 0021J. Stephen Sondheim and the American Musical.
This seminar considers the theater shows of Stephen Sondheim in relation to the history of the American musical. Through close study of selected scenes and shows, we examine how and why Sondheim and his collaborators “reinvented” the genre. Special emphasis will be given to Sondheim’s critical skepticism concerning the myths, characters, and ethos of social optimism that have been central to the Broadway tradition. We examine links between the shows and post-WWII historical contexts, and consider the political implications of the circumscribed social universe predominantly white, urban, and affluent—within which most of his shows take place.
Fall MUSC0021J S01 16698 THh 10:30-11:50(13) (D. Gooley)

MUSC 0030. History of Jazz.
The development of jazz from its roots to the present. Focuses on the study of style types (including New Orleans style, early piano jazz, swing, bebop, and cool jazz) and their major instrumental and vocal exponents. Jazz as a social phenomenon is studied in relation to contextual aspects of folk, popular, and art music traditions in the U.S.
Spring MUSC0030 S01 25213 THh 9:00-10:20(01) (M. McGarrell)

MUSC 0033. From the Blues to Beyoncé: Rock, A Portrait of America.
This course seeks to view American cultural and social history of the last century through the lens of rock music. We will investigate the history of rock and popular music from its roots in the early twentieth-century to the present. We will examine the social, cultural and political contexts that gave birth to the various genres of rock music by exploring the music through the lenses of race, class, gender, advances in technology, and developments in the music business. No musical background is required. There are conference sections for this course that meet in alternating weeks. At the beginning of the semester, Professor Nathan will communicate with enrolled students with information regarding the process of enrolling in the conferences and will provide the override codes needed to enroll in a conference.
Spring MUSC0033 S01 25207 THh 1:00-2:20(08) (E. Nathan)

From the early 20th century until now, war, political movements, ideological and cultural shifts, and later economic booms have dramatically impacted music and musical life in China. This course examines various genres of music in China, both native and imported, including traditional instrumental music, propaganda songs, opera, ballet, standard and contemporary classical music, pop music, and communal activities like amateur choruses and calisthenics. This course will exercise critical listening and thinking and comparative analysis skills, with a mix of source readings, recordings, and historical background. No background in music or Chinese history is required.
Spring MUSC0068 S01 25797 W 3:00-5:30(10) (L. Jiorle-Nagy)

Examines the history, literature, production and theory of music technology. Track development of musical inventions and their impact on musical thought, production and culture. Develop theoretical and practical knowledge of computer music based on first-hand experience in the Multimedia Lab, using computer music software and hardware to complete creative assignments. Gain an appreciation for the pioneering work done in previous decades, both in research and composition. Become familiar with the literature of electronic music and learn about the impact of technology on popular and experimental genres. Permission granted based on questionnaire given in first class. Preference given to lower-level students.
Fall MUSC0200 S01 16709 THh 10:30-11:50(13) (E. DeLuca)

MUSC 0400A. Introduction to Music Theory.
An introduction to musical terms, elements, and techniques. Topics include notation, rhythm and meter, intervals, scales, chords, melody writing, harmonization, and form. Students will develop their musicianship skills, including sight-singing and keyboard, in labs which meet twice weekly. No prior musical experience is necessary. MUSC 0400A or 0400B may fulfill part of the theory requirement for the music concentration. Enrollment limited to 40.
Fall MUSC0400/ S01 17763 MWF 11:00-11:50(16) (L. Jiorle-Nagy)
Spring MUSC0400A/ S01 26226 MWF 11:00-11:50(04) (L. Jiorle-Nagy)

MUSC 0400B. Introduction to Popular Music Theory and Songwriting.
An introduction to musical terms, elements, and techniques, with an emphasis on how they apply to Western popular music. Topics include notation, rhythm and meter, intervals, scales, chords, melody writing, harmonization, and form. Students will develop their musicianship skills, including sight-singing and keyboard, in labs which meet twice weekly. No prior musical experience is necessary. MUSC 0400A or 0400B may fulfill part of the theory requirement for the music concentration. Enrollment limited to 40.
Fall MUSC0400B S01 17828 MWF 10:00-10:50(14) (L. Jiorle-Nagy)
Spring MUSC0400BS01 26230 MWF 10:00-10:50(03) (L. Jiorle-Nagy)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
MUSC 0550. Theory of Tonal Music I.
Intensive study of the building blocks of tonal music traditions including western and popular music with focus on melody, harmony, counterpoint, keyboard skills, ear training, sight-singing from musical notation, and composition. Prior keyboard experience helpful but not required. A required placement exam is administered at first class meeting. Students who do not have experience reading music notation should take MUSC 0400 prior to MUSC 0550. MUSC 0550 is a prerequisite to many music courses and is a requirement for the music concentration.

Fall MUSC0550 S01 16690 TTh 1:00-2:20(08) (M. Steinbach)
Fall MUSC0550 S02 16693 TTh 10:30-11:50(13) (E. Nathan)

See Theory Of Tonal Music (MUSC 0550) for course description. Prerequisite: MUSC 0550 or permission of the instructor.

Spr MUSC0560 S01 25510 TTh 1:00-2:20(08) (L. Wang)

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 25511 TTh 10:30-11:50(09) (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, sectional, and performance. Enrollment is by audition, based on voice quality, experience, and music-reading ability. Instructor permission required.

Fall MUSC0600 S01 17021 MW 6:30-8:20PM(12) 'To Be Arranged'

MUSC 0601. Chorus.
See Chorus (MUSC 0600) for course description.

Spr MUSC0601 S01 25659 MW 6:30-8:20PM(14) (L. Jodry)

MUSC 0610. Orchestra.
Half credit each semester. A practical study of the orchestra repertoire 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 17017 TTh 7:15-9:45PM(10) (M. Seto)

MUSC 0611. Orchestra.
See Orchestra (MUSC 0610) for course description.

Spr MUSC0611 S01 25657 TTh 7:15-9:45PM(18) (M. Obeng)

MUSC 0620. Wind Symphony.
Half credit each semester. A practical study of the wind band repertoire 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 17075 W 6:00-8:20PM(12) (K. Plouffe)
Fall MUSC0620 S01 17075 M 6:00-7:20(12) (K. Plouffe)

MUSC 0621. Wind Symphony.
See Wind Symphony (MUSC 0620) for course description.

Spr MUSC0621 S01 25685 W 6:00-8:20PM(14) (K. Plouffe)
Spr MUSC0621 S01 25685 M 6:00-7:20(14) (K. Plouffe)

MUSC 0630. Jazz Band.
Half credit each semester. A practical study of jazz from the 1920s to the present through coaching, rehearsals, and performance. Seminars on arranging, ear training, and improvisation are conducted for interested students but the focus is on performance. Enrollment is by audition. Restricted to skilled instrumentalists and vocalists. Instructor permission required.

Fall MUSC0630 S01 17079 Th 6:10-7:20(09) (E. Tomassi)
Fall MUSC0630 S01 17079 M 7:30-8:50PM(09) (E. Tomassi)
Fall MUSC0630 S02 17082 T 8:00PM-9:20PM(09) (E. Tomassi)
Fall MUSC0630 S03 17083 W 2:00-3:20(09) (E. Tomassi)
Fall MUSC0630 S04 17084 W 4:00-5:20(09) (E. Tomassi)
Fall MUSC0630 S05 17085 F 4:00-5:20(09) (E. Tomassi)
Fall MUSC0630 S06 17086 T 12:00-1:30(09) (E. Tomassi)

MUSC 0631. Jazz Band.
See Jazz Band (MUSC 0630) for course description.

Spr MUSC0631 S01 25686 Th 6:10-7:20(14) (E. Tomassi)
Spr MUSC0631 S01 25686 M 7:30-8:50PM(14) (E. Tomassi)
Spr MUSC0631 S02 25687 T 8:00PM-9:20PM(18) (E. Tomassi)
Spr MUSC0631 S03 25688 W 2:00-3:20(08) (E. Tomassi)
Spr MUSC0631 S04 25689 W 4:00-5:20(10) (E. Tomassi)
Spr MUSC0631 S05 25690 F 4:00-5:20(15) (E. Tomassi)
Spr MUSC0631 S06 25691 T 12:00-1:30(08) (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.

Fall MUSC0640 S01 17076 W 5:00-7:20(17) (M. Obeng)

MUSC 0641. Ghanaian Drumming and Dancing Ensemble.
A dynamic introductory course on drumming, dancing, and singing of Ghana and the diaspora. Students learn to perform diverse types of African music, including Ewe, Akan, Ga, and Dagomba pieces on drums, bells, and shakers. No prerequisites. May be repeated for credit. Enrollment limited to 15. Instructor permission required.

Spr MUSC0641 S01 25765 W 5:00-7:20(10) (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, gyil, 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 Nasimieto.

Fall MUSC0642 S01 17077 M 7:00-9:00PM(12) (M. Obeng)
Spr MUSC0642 S01 25763 M 7:00-9:00PM(14) (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 MUSC0650 S01 17078 T 6:00-8:50PM(10) (M. Perlman)

MUSC 0651. Javanese Gamelan.
See Javanese Gamelan, MUSC0650, for course description. Enrollment limited to 18 students.

Spr MUSC0651 S01 25692 T 6:00-8:50PM(18) (M. Perlman)

MUSC 0670. Old-Time String Band.
Half credit each semester. Instruction and ensemble playing. Music taught by ear. American (southern Appalachian Mountain) traditional music on violin (fiddle), 5-string banjo, mandolin, and guitar. Enrollment limited to 20 students.

Fall MUSC0670 S01 17160 T 7:00-8:50PM(10) (S. Austrausky)
MUSC 0671. Old-Time String Band.
See Old-Time String Band (MUSC 0670) for course description. Enrollment limited to 20 students.
Spr MUSC0671 S01 25802 T 7:00-8:50PM(18) (S. Austrausky)

MUSC 0680. Chamber Music Performance.
Half credit each semester. The practical study of the literature of chamber music through participation in a small ensemble. Regular rehearsals, coaching by department staff, and performances are required. Enrollment is by audition. Students will be notified of audition results within the first ten days of the semester. Restricted to skilled instrumentalists. May be repeated for credit.
Fall MUSC0680 S01 17161 Arranged (L. Finkel)

MUSC 0681. Chamber Music Performance.
See Chamber Music Performance (MUSC 0680) for course description. Spr MUSC0681 S01 25803 Arranged (L. Finkel)

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.

Interested students must register for RELS 0822.
Fall MUSC0825 S01 17443 Arranged 'To Be Arranged'

MUSC 0900. Haydn and Mozart.
This course explores the music of Joseph Haydn (1732-1809) and Wolfgang Amade Mozart (1756-1791); two remarkable composers, who led powerfully contrasting but intertwined lives. Our focus will be Mozart’s three operas that he produced with the librettist Lorenzo Da Ponte—Le Nozze di Figaro, Don Giovanni, and Cosi fan tutte. Haydn’s twelve London Symphonies, and his grand oratorio, The Creation. Through these works we can access a wealth of issues and themes of the late Enlightenment style: questions of voice, affect, register, eighteenth-century listening, comedy, form, dance, naturalness, minims, the sublime, orchestral effect, and musical modernity.
Spr MUSC0900 S01 25792 TTh 1:00-2:20PM(08) (E. Dolan)

MUSC 1005. Arts Workshop for Practice and Practice-Oriented Research (LITR 1000).
Interested students must register for LITR 1000.
Fall MUSC1005 S01 17633 Arranged 'To Be Arranged'

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 or MUSC 0570, or permission of the instructor.
Fall MUSC1010 S01 16705 MWF 2:00-2:50PM(07) (A. Cole)

MUSC 1011. Advanced Musicianship II.
Continuation of MUSC 1010. Prerequisite: MUSC 1010 or permission of the instructor.
Spr MUSC1011 S01 25216 MWF 2:00-2:50PM(07) (A. Cole)

MUSC 1040. Analysis of Romantic Musics.
This is an analysis course focusing on music of 19th -century Western concert tradition. The primary goal is to improve and introduce new analysis skills related to chromatic harmony and form. The course proceeds by distinctive genres, including examples of solo piano works, lieder, string quartets and other chamber works, symphonies, tone poems, and opera. Though the emphasis is primarily on analyzing purely musical elements, we will also touch on broader issues of Romantic aesthetics and cultural contexts, such as fragmentation, virtuosity, nostalgia, and the debate over absolute and programmatic music.
Spr MUSC1040 S02 25794 TTh 4:00-5:20PM(16) (I. Tan)

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 MUSC 0570 or permission of the instructor. Enrollment limited to 20 students.
Fall MUSC1100 S01 17004 W 3:00-5:30PM(17) (K. Warren)

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 noted repertoire from the concert tradition, we will also examine approaches to film scoring, improvisation, and environmental sound worlds outside of the traditional concert hall.
Spr MUSC1110 S01 25206 W 3:00-5:30PM(10) (E. Nathan)

A study of advanced studio techniques taught in parallel with topics in psychoacoustics. Students will create original studio work while developing listening and technical skills for audio production. Technical topics include recording, signal processing and mixing software, microphone technique, and live sound engineering. Class size is limited. Preference will be given to students who have completed MUSC 0200. Students will be evaluated for potential future work in the MEME program (Multimedia and Electronic Music Experiments) and past participation in MEME Admission is determined by an entrance questionnaire completed at the first class meeting. Prerequisite: MUSC 0200
Spr MUSC1200 S01 25218 TTh 2:30-3:50PM(11) (J. Moses)

MUSC 1205. Reality Remix - Experimental VR.
This course pursues collaborative experimentation with virtual and augmented reality (AR and VR). The class will work as a team to pursue research (survey of VR/AR experiences, scientific and critical literature review), reconnaissance (identifying VR/AR resources on campus, in Providence and the region), design (VR/AR prototyping). Research findings are documented in a class wiki. The course makes use of Brown Arts Initiative facilities in the Granoff Center where an existing VR laboratory will be expanded through the course of the semester based on student needs. Class culminates in the release the class wiki as a resource for the Brown community.
Fall MUSC1205 S01 17863 Th 6:00-9:00PM(10) (A. Momeni)

Seminar in Electronic Music is a study of music employing electronic media, including real-time digital signal processing, multimedia, and live performance. Technical aspects of the course focus on programming using Max/MSP to create interactive projects and algorithmic compositions. Permission of instructor required. Interested students must come to the first class. Preference will be given to students who have completed MUSC 0200.
Fall MUSC1210 S01 17872 TTh 2:30-3:50PM(03) (M. Sagesser)

MUSC 1240L. Building Musical Instruments.
In Building Musical Instruments, we will study and create expressive musical sound by building electronic instruments. Using sonic goals as inspiration for design features, we will build contact microphones, basic synthesizers, digital controllers, and physical enclosures, and we will consider the ways in which these distinct objects can unite 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. Override codes required; interested students must attend first day and complete questionnaire, only after which will override codes be distributed.
Fall MUSC1240L S01 17005 TTh 10:30-11:50AM(13) (K. Warren)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
MUSC 1240M. Composing with Ableton.
In Composing with Ableton, we will study and use the well known music-making software Ableton Live and its subsidiary Max for Live (M4L). We will consider sound in Live and M4L from a variety of perspectives, from popular music vocabularies to experimental sound practices. This project-based class teaches production techniques in tandem with critical investigation of genre and development of personal style. Topics include: DAW-style production, control information, interactivity, and digital signal processing. Override codes required; interested students must attend first day and complete questionnaire, only after which will override codes be distributed.

Spr MUSC1240M S01 25624 TTh 10:30-11:50(09) (K. Warren)

MUSC 1240N. Analog Practice.
Analog sound is uniquely tactile, expressive, and flexible. Through a series of solo, collaborative, recorded, and live-performed projects, this class explores the practice of creating analog sound. We will use a wide array of modular and semi-modular analog synthesizers, including the rare ARP 2500. Beginning with broad concepts of voltage flow and modulation, we will expand into considering the unique affordances of various synths, addressing questions such as tone color, ease of sound production and variation, and conduciveness to combination with other sound sources. Interested students strongly recommended to attend first day; final class list determined by questionnaire.

Spr MUSC1240N S01 25801 TTh 2:30-3:50(11) (K. Warren)

MUSC 1240R. Rap as Storytelling.
This is a weekly production seminar in which students will explore various aspects of hip hop songwriting from the perspective that rap verses can constitute compelling stories. Over the course of the semester we will examine several different storytelling approaches, song structures, and techniques through deep listening sessions, class discussions, and lectures from a range of invited guests. Students will be expected to record verses or parts of verses as part of their weekly writing assignments as well as perform prepared material for their classmates at three points during the semester.

Fall MUSC1240R S01 17913 M 3:00-5:30(05) (E. Lumumba-Kasongo)

MUSC 1240Z. Public Art in Sound and Listening.
This course is about public artmaking and critical inquiry through sound and listening. Students will collaborate with particular people in Providence and Newport on projects. Students will foreground the generative possibilities of non-normative forms and question structures of audibility and inaudibility, collision and resistance. The creative tools and methodologies students experiment with will be contextualized with readings of everyday sonic praxis, site-specific art, storytelling, speculative design, social sculpture, and teaching community.

Fall MUSC1240Z S01 17923 T 4:00-6:30(09) (E. DeLuca)

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 17304 W 3:00-5:30(17) (J. Moses)

MUSC 1660A. Mahler's Century.
This seminar will explore key works of Gustav Mahler in multiple contexts, including critical/interpretive traditions, conducting and performance practices, and the contexts of political, cultural, intellectual, and aesthetic history. Readings will include work of Sigmund Freud, Theodor Adorno, Carl Schorske, Julia Kristeva, Judith Butler, and others; we will think about problems such modernism, orientalism, Jewishness, montage, noise, shock, and melancholy.

Fall MUSC1660A S01 16702 Th 4:00-6:30(04) (M. Steinberg)

Explores the visual and theatrical dimensions of music performance--both recent and historical--through the analysis of live performances, video clips, and historical documents. Using the critical methods of performance studies, we seek to uncover those aspects of musical experience that have become transparent or normalized by their familiarity, and which are eluded by a traditional focus on music as "sound alone." We concentrate on five genres--rock, classical, pop, jazz, and experimental--and consider figures such as Arturo Toscanini, David Bowie, Jimi Hendrix, Louis Armstrong, Miles Davis, Pauline Oliveros, John Zorn, Diamanda Galás, Madonna and Michael Jackson. Enrollment limited to 24. First year students require instructor permission.

Spr MUSC1680 S01 25211 TTh 2:30-3:50(11) (D. Gooley)

MUSC 1690A. Miles Davis: An Evolution in Jazz.
This seminar examines the life, music, and iconic status of Miles Davis, the most complex and varied figure in the history of jazz. From the mid-40s, when he emerged as a sideman to bebop virtuoso Charlie Parker, to his death in 1991, Davis was often on the cutting edge of jazz's evolution, spurring on the development of cool jazz, hard bop, progressive jazz, modal jazz, post-bop, and various forms of fusion. He was at the same a powerful though elusive personality who continues to inspire critical controversy. We will examine his creative evolution in the context of the history of popular music taste, race relations, gender roles, and social change in America. Readings include biographies, studies of his music, and collections of critical essays. There will be extensive listening assignments and occasional required video screenings.

Spr MUSC1690A S01 25209 M 3:00-5:30(13) (D. Gooley)

MUSC 1700. Score Reading and Conducting.
The art of reading, analyzing, and conducting a musical score. Studies in clef reading, transposition, ear-training, and structural analysis to develop the skills needed for full comprehension of an orchestral score. Introduces the theory and technique of conducting with practice in the art of physical gesture. Selected repertoire from the Baroque through contemporary periods are studied and conducted in class. Prerequisite: MUSC 0550 or permission of the instructor. May be repeated for credit.

Fall MUSC1700 S01 16695 TTh 2:30-3:50(03) (M. Seto)

Half credit each semester. Restricted to skilled musicians. Restricted to skilled musicians demonstrating mastery of an advanced repertory in their fields. Openings are limited. Enrollment and re-enrollment is by audition and jury. Lessons are given by consultants to the Applied Music Program. MUSC 0830, 0840 is prerequisite to this course. A fee is charged for enrollment. Copies of the Applied Music Program Guidelines giving detailed information are available online at www.brown.edu/music. Prerequisite: MUSC 0400, or MUSC 0550, MUSC 0560. Written permission required. May be repeated up to four times for credit.

This seminar offers a critical and comparative exploration of American roots music, a category comprising folk, traditional, and popular genres that have been labeled "heritage music" or "ethnic music" in the context of American multiculturalism. Major case studies include African American, Mexican American, and Anglo American traditions/repertoires, with geographical emphases in Appalachia, the city of Chicago, and the state of California. Readings draw on both historical and ethnographic scholarship. Some background coursework in ethnomusicology, cultural anthropology, American Studies, and/or ethnic studies is required. Prerequisite: MUSC 1900 or ETHN 1000 (formerly ETHN 0550) or instructor permission.

Spr MUSC1932 S01 25212 TTh 2:30-3:50(11) (K. Miller)

Students with experience in African and related musical traditions perform drumming, dancing, and singing of Ghana and the diaspora. Focus on a more challenging repertoire with emphasis on multi-part, lead, and improvisational playing. Prerequisite: audition. May be repeatable for credit. Instructor permission required. Enrollment limited to 15 students.

Fall MUSC1960 S01 17486 W 7:30-9:50PM(12) (M. Obeng)
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. Spr MUSC1961 S01 25974 W 7:30-10:00PM(14) (M. Obeng)

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 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 2026. Timbre. This seminar takes as its starting point a collection of commonplace complaints in music studies around timbre: timbre is misunderstood; it is difficult to define; it is a woefully understudied musical parameter; it lacks a standardized theory and vocabulary; it needs more systematic analysis. At the same time, with the recent publication of books, edited volumes, and special issues devoted to timbre, people have also begun to speak of timbre studies as an emerging, discrete subfield. This seminar delves into this diverse literature in order to think critically about the concept of timbre and the struggles to understand it.
Fall MUSC2026 S01 17151 Th 1:00-3:30(08) (E. Dolan)

MUSC 2070. Music and Identity. From 19th-century European nationalism to 20th-century American multiculturalism, people have used music to affirm their identities. Drawing on anthropological and sociological theory, we examine the variety of connections between music and identity in several case studies. We consider the possible contributions of music to cross-cultural understanding, and discuss the ethics of musical border-crossing.
Fall MUSC2070 S01 17658 W 10:00-12:30(16) (M. Perlman)

MUSC 2080E. Seminar in Ethnomusicology: Historiography of Music and the Performing Arts. Advanced seminar in methods of historical research and their relevance to the interpretation of music, the performing arts, and culture. Readings include Foucault, Collingwood, Schorske, Said, Adorno, Pierre Nora and Diana Taylor, as well as musicalcological essays by Taruskin, DeVeaux, Nettl, Tomlinson, Trettler, Lawrence Kramer, Susan McClary, Kerman, and Nicholas Cook. Open to juniors, seniors, and graduate students.
Fall MUSC2080E S01 16699 M 3:00-5:30(05) (D. Gooley)

MUSC 2085B. Popular Music Studies (AMST 2220R). Interested students must register for AMST 2220R.
Spr MUSC2085S S01 25877 Arranged "To Be Arranged"

MUSC 2095. Creativity. A multidisciplinary survey of creativity, with emphasis on the arts, and especially music. Using perspectives from psychology, history, economics, law, and anthropology we will consider the sources, mechanisms and value of creativity; the role of individual and social factors in creativity; ownership of the results of creativity; biases in the promotion and evaluation of creativity; the relationship of gender and racial diversity to creativity; and the political economy of creativity.
Fall MUSC2095 S01 17908 T 12:30-2:50(08) (M. Perlman)

MUSC 2200. Composition Seminar. A forum for graduate composers to share and critique current projects. Visiting artists and analysis of relevant outside repertoire will augment the group and one-on-one meetings. Enrollment is limited. Written permission required. May be repeated for credit.
Fall MUSC2200 S02 16692 W 3:00-5:30(17) (E. Nathan)

MUSC 2290. Seminar In Sonic Practice. This studio and seminar course provides an exploration of contemporary sonic practice, facilitates the development of sound-based creative work, and encourages a critical approach to producing work in the field. Through discussion, reading, listening exercises, independent research, creative production and critiques, we will examine a number of intersecting areas of sonic practice including sound as a cultural, environmental, and artistic medium, phonography, sound installation, mobile audio, noise as strategy and material, linguistic and other sonic narrative structures. Students will develop sound-based pieces individually and in groups which function as creative research into the subjects areas of the course.
Spr MUSC2290 S01 25886 M 3:00-5:30(13) (E. Osborn)

MUSC 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 for a preliminary examination.
Fall MUSC2450 S01 15317 Arranged "To Be Arranged"
Fall MUSC2450 S02 15318 Arranged "To Be Arranged"

MUSC 2970. Preliminary Examination Preparation. For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall MUSC2990 S01 15320 Arranged "To Be Arranged"
Spr MUSC2990 S01 24206 Arranged "To Be Arranged"

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?
Spr PHIL0010 S01 25345 MWF 10:00-10:50(03) (D. Christiansen)

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? No overrides will be granted for this course.
Fall PHIL0030 S01 16734 TTh 1:00-2:20(05) (F. Ackerman)

PHIL 0080. Existentialism. An introduction to philosophical thinking through the study of existentialist themes, including being oneself, loving others, the limits of morality, and the meaning of life in the face of suffering and death. Readings are drawn primarily from Schopenhauer, Dostoyevsky, Nietzsche, Kierkegaard, Heidegger, Sartre, de Beauvoir, and Camus.
Fall PHIL0080 S01 16730 MWF 12:00-12:50(15) (B. Register)

PHIL 0100. Critical Reasoning. This course will teach students critical reasoning skills needed to analyze a diverse range of challenging arguments, as well as the tools required to develop compelling arguments of one's own. Together we will investigate the following broad topics: validity and soundness, argument decomposition and construction, deductive and inductive arguments, evidential assessment, and fallacious reasoning. We will also consider the various ways our critical reasoning faculties can breakdown and be impeded by bias (in explicit and implicit forms), stereotypes, and prejudice, as well as potential mitigation strategies.
Spr PHIL0100 S01 25867 MW 1:00-1:50(06) (E. Guindon)

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

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PHIL 0100. 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.
Spr PHIL0100 S01 25382 MWF 11:00-11:50(04) (A. Bjurman Pautz)

PHIL 0180. Topics in Feminist Philosophy.
This survey course is designed to introduce students to core issues of feminist philosophy. We will investigate foundational and topical questions of feminist theory, by both classic and contemporary authors. Topics include: the nature of gender, oppression, masculinity and femininity, objectification, and the relationship between social inequality and knowledge. Emphasis will be placed on understanding these issues in relation to social categories such as race, sexuality and (dis)ability.
Fall PHIL0180 S01 16739 MWF 1:00-1:50(06) (R. Leadon)

PHIL 0200F. Language, Race, and Gender.
We will explore slurs, pejoratives, epithets and normative generics. Topics include: How do these expression express contempt? How can they be used to derogate social groups? Is the derogatory element and the contempt they express part of the meaning or is it implied when they are used in certain contexts? Is it a feature of semantics or pragmatics? Do they refer? What are their semantic values? Do they have an expressive content? This course will serve as an introduction to philosophy of language. The nature of linguistic meaning, how language represents the world, the interface between semantics/pragmatics will be discussed.
Fall PHIL0200F S01 16729 MWF 11:00-11:50(16) (A. Bjurman Pautz)

PHIL 0202. Causation.
A topic of interest to philosophers has been the existence and nature of causal relations. Philosophers have asked what sorts of causal relations, if any, there are in the world and how human beings come to have knowledge of them. In this course, we examine the main answers to these and other questions that have been proposed by philosophers throughout the history of philosophy to the present. Throughout the course, students will be taught the principles of careful textual analysis, some of the basic presuppositions of analytical philosophy, and how to present philosophical arguments clearly, both orally and in writing.
Fall PHIL0202 S01 17411 TTh 9:00-10:20(02) (T. Moore)

PHIL 0204. Philosophy of Attention.
This course is meant to provide and introductory exploration into the concept of attention, with special focus on methods of phenomenology, conceptual analysis, and interpretation. We will give special consideration to the role of attention in relation to self-understanding, morality, and aesthetic experience. We will consider questions such as: What is attention? How is attending related to consciousness, awareness, and the unconscious? What role does attentiveness play in agency and embodied action? How can attention be cultivated and shaped? Can we attend too much or too little, too narrowly or too widely, or even in the wrong ways?
Fall PHIL0204 S01 17155 TTh 9:00-10:20(02) (E. Hodges)

PHIL 0206. Introduction to Aesthetics.
This is an introductory course on aesthetics, giving an overview of the history of (western) aesthetics and of contemporary debates in analytic aesthetics. Among the historical figures to be read are Plato, Aristotle, Kant, Nietzsche, and Adorno. Some of the contemporary debates concern the right theory of art (representationalism, the expression theory, formalism), the definition of art, and the ontology of works of art. We will consider some general criticisms of western aesthetics. Students will be introduced to prominent positions in aesthetics, but they will also learn how to engage in rigorous philosophical argumentation in the face of those positions.
Spr PHIL0206 S01 25938 MWF 11:00-11:50(04) (S. Meister)

PHIL 0207. Food and Philosophy.
This course will deal with questions about the epistemology, metaphysics, aesthetics, ethics and politics of food: how we should reason about the things we eat, what makes them tasty or artistic, and what we ought and ought not to eat and how we ought to structure the environment in which food is produced and distributed. This seminar is meant as a general introduction to philosophy, in which you will familiarize yourself with long-standing kinds of philosophical questions and modes of reasoning. Food will be our anchor topic, the subject matter that gives us the occasion for such philosophical reflection.
Fall PHIL0207 S01 17421 MWF 12:00-12:50(15) (E. Guindon)

PHIL 0209. Nothingness.
Many philosophers have written a great deal about nothing: whether there can be nothing, why there isn’t only nothing, whether can talk about nothing, and what it is like to experience nothing. Can there be any meaning to this sort of talk? Is there some important metaphysical role to be played by nothing or nothingness? Is such questioning merely a confusion resulting from misuse of language? This course will survey writings on nothing, with particular attention to the problem of ineffability. We will develop necessary skills to come to terms with and rationally argue about obscure topics and challenging texts.
Spr PHIL0209 S01 26161 MWF 12:00-12:50(05) (L. Kenny)

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.
Fall PHIL0350 S01 16742 MWF 11:00-11:50(16) (E. Kress)

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.
Spr PHIL0360 S01 25353 MWF 10:00-10:50(03) (C. Larmore)

PHIL 0390. Global Justice.
Is it unjust that people in some countries have 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.
Fall PHIL0390 S01 16738 MWF 12:00-12:50(15) ’To Be Arranged’

PHIL 0500. Moral Philosophy.
What is the right thing to do? What should a good person be like?
More generally, what determines what is right and wrong, good and bad, virtuous and vicious? In this course, we will consider three greatley influential moral theories – utilitarianism, Kantianism, and Aristotelian virtue ethics — as well as feminist perspectives on morality. Towards the end, we'll also consider more general questions that any moral theory faces. For instance: Does morality depend on God? Is morality relative or subjective (whatever that's supposed to mean)? And why should we care about being moral in the first place?
Spr PHIL0500 S01 25347 MWF 1:00-1:50(06) (N. Arpaly)
PHIL 0540. Logic.
An introduction to perhaps the most fundamental tool of rational thought: deductive logic. Course begins with basic sentential logic, then moves on to deduction, quantification, and predication. Argumentation and reasoning may also be addressed at times. No previous experience with logic or philosophy is required.
Fall PHIL0540 S01 16728 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.
Spr PHIL0550 S01 25346 MWF 12:00-12:50(05) (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.
Spr PHIL0560 S01 25348 MWF 2:00-2:50(07) (D. Estlund)

PHIL 0600. Introduction to Philosophy of Physics.
An introductory survey of topics relevant to the study and practice of physics, with a particular focus on the structure of space and time.
Spr PHIL0600 S01 25516 TTh 10:30-11:50(09) (E. Miller)

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 the more general philosophical themes. This course has no prerequisites.
Spr PHIL0880 S01 25356 TTh 2:30-3:50(11) (F. Ackerman)

PHIL 0990F. Perception.
 Begins 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. Suggested prerequisite: at least one course in philosophy (2 or more preferred).
Fall PHIL0990F S01 16737 MWF 10:00-10:50(14) (A. Pautz)

PHIL 0990T. Paradox and Infinity.
This course will focus on several important paradoxes that arise within philosophy and mathematics. We will use these paradoxes to investigate central issues in metaphysics, the philosophy of language, decision theory, physics, mathematics, and logic. Among the paradoxes we will discuss are Zeno's paradoxes of space, time, and motion; the paradoxes of set theory; the paradoxes of truth and reference; the sorites paradox; and paradoxes of rational action and rational belief. Enrollment limited to 20.
Spr PHIL0990T S01 25355 MWF 2:00-2:50(07) (J. Schechter)

PHIL 0990V. Current Questions About Rational Belief.
We'll study some "hot topics" in epistemology. Some possible questions:
(1) What's the relationship between rational belief and logic? (2) Is belief best thought 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 16747 W 3:00-5:30(17) (D. Christensen)

PHIL 0990Y. Philosophy of Quantum Mechanics.
An examination of philosophical issues informed by elementary quantum mechanics; topics include the measurement problem, superposition, non-locality, and competing "interpretations" of the textbook formalism.
Spr PHIL0990Y S01 25517 TTh 2:30-3:50(11) (E. Miller)

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 25351 TTh 2:30-3:50(11) (C. Hill)

PHIL 0991O. The Meaning of Life.
The seminar examines in detail recent philosophical work on the concept of meaningfulness. We will a range of questions including: What is it for a life to be 'meaningful'? What are the prospects of having a meaningful life? What is a 'crisis of meaning' and in what forms does it come? Philosophers to be considered include Susan Wolff, Jay Wallace, Jonathan Lear, Guy Kahane, and others.
Spr PHIL0991O S01 25597 Th 4:00-6:30(17) (B. Register)

PHIL 1200. Aristotle's Ethics.
An investigation of Aristotle’s ethical views as they are expounded in the Nicomachean Ethics, with an emphasis on the place of virtue and what (if anything) might make Aristotle’s account distinct from others on offer, including consequentialism and deontology. Topics include happiness and human flourishing, moral education, the virtues of character (including details of specific virtues), the nature of human action, the virtues of thought, weakness of will, pleasure, and friendship. Readings from Aristotle will be supplemented with selections from contemporary accounts of virtue ethics and scholarly work on Aristotle’s writings.
Fall PHIL1200 S01 17281 M 3:00-5:30(05) (E. Kress)

PHIL 1210. Issues for Feminism in Ethics (GNSS 1712).
Interested students must register for GNSS 1712.
Fall PHIL1210 S01 17613 Arranged 'To Be Arranged' (C. Larmore)

PHIL 1281. The Philosophy of Augustine.
This course will focus on Augustine’s most important philosophical work, the Confessions, though some of his other writings will also be discussed. Topics covered will include his views about freedom, the will, interiority, language, evil, sin, conversion, time, memory, and skepticism. Attention will also be given to his influence on medieval (Anselm, Scotus) and modern (Descartes, Wittgenstein) philosophy.
Spr PHIL1281 S01 26014 M 3:00-5:30(13) (C. Larmore)

PHIL 1400. Ethics in the Novel.
Consideration of novels in terms of their treatment of such ethical themes as love, friendship, envy, death, courage, faith, integrity, betrayal, responsibility to others, revenge, justice, and mercy. The course deals with twentieth-century and twenty-first-century novels and also with Malory. No pre-requisites. NoOverrides will be granted for this course.
Fall PHIL1400 S01 16735 TTh 2:30-3:50(03) (F. Ackerman)

PHIL 1420. Philosophy and Poetry.
An examination of philosophy and poetry as rival avances to the apprehension of truth, as well as an introduction to the basic problems of aesthetics. Philosophical readings will range from Plato to Hegel to contemporary writers. The focus of the course will be three philosophical poems: 'Lucretius' On the Nature of Things, Wordsworth's Prelude, and Eliot's Four Quartets. One previous course in philosophy is recommended.
Fall PHIL1420 S01 16733 TTh 10:30-11:50(13) (C. Larmore)
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, hemineglect, and related phenomena; (ix) the unconscious; and (x) what it is for a state of consciousness to be unified.

Fall PHIL1520 S01 16745 TTh 2:30-3:50(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 25383 TTh 9:00-10:20(01) (J. Dreier)

PHIL 1590. Philosophy of Science.
Some very general, basic questions concerning science. Can evidence justify belief in theories which go beyond the evidence? What is the nature of good scientific reasoning? Is there a single scientific method? What is a scientific explanation? Does science reveal truths about unobservable reality, or merely tell us about parts of the world we can measure directly?

Fall PHIL1590 S01 16743 TTh 10:30-11:50(13) (D. Christensen)

PHIL 1630. Mathematical Logic.
This course provides a rigorous introduction to the metatheory of classical first-order predicate logic. Topics covered include the syntax, formal semantics, and proof theory of first-order logic, leading up to the completeness theorem and its consequences (the compactness and Lowenheim-Skolem theorems). There will be some discussion of philosophical issues, but the focus of the course will be on the technical material. This course provides a more rigorous and mathematical treatment of material covered in PHIL 0540. No previous familiarity with logic is required, but it may be taken after 0540.

Fall PHIL1630 S01 17280 MWF 10:00-10:50(14) (E. Guindon)

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 16740 MWF 2:00-2:50(07) (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 16731 MWF 1:00-1:50(06) (A. Pautz)

PHIL 1710. 17th Century Continental Rationalism.
The course will focus on the principle of sufficient reason and involve a close reading of Spinoza's Ethics, along with other texts from Leibniz, Schopenhauer, Heidegger, and some contemporary writers.

Fall PHIL1710 S01 16749 W 3:00-5:30(17) (C. Larmore)

We will cover the main topics of Kant's masterpiece, including his third way between rationalism and empiricism, his approach to skepticism and idealism, his foundational approach to science and everyday experience, and his limitation of knowledge to leave room for practical faith. Prerequisites: PHIL 0360, 1700, 1710 or instructor permission.

Spr PHIL1720 S01 25945 TTh 1:00-2:20(08) (P. Guyer)

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? Pre-req: Must have taken one course in Philosophy.

Spr PHIL1750 S01 25350 TTh 1:00-2:20(08) (C. Hill)

PHIL 1770. Philosophy of Mind.
Questions concerning the nature of mentality and its relation to the body. Selections from the following topics: mind and behavior, mind as the brain, mind as a computing machine, thought and language, action and mental causation, intentionality and consciousness. Prerequisite: at least one course in philosophy (2 or more preferred).

Spr PHIL1770 S01 26349 TTh 10:30-11:50(09) (A. Pautz)

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 psychoanalytic theory, its interaction with recent developmental research, and its applications in literary and cultural studies.

Spr PHIL1820 S01 25357 MWF 1:00-2:20(08) (B. Register)

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.

Spr PHIL1880 S01 25357 MWF 10:00-10:50(03) (R. Heck)

PHIL 1910F. Schopenhauer's Ethical Thought.
The course offers a detailed survey of Schopenhauer's ethical thought, including his views about the character of moral agency (e.g., free will), about practical reason and deliberation, about philosophical psychology (e.g., the nature of egoism, the nature of pleasure), and about substantive ethics (e.g., compassion, resignation, and the ethical significance of artistic contemplation). It is recommended that students have at least one other course in ethics.

Fall PHIL1910F S01 16986 MWF 2:00-2:50(07) (B. Register)

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 2011A. Reductionism.
Exploration of reductive approaches in contemporary metaphysics and philosophy of science. The question of whether there is a deep sense in which all the complexity of reality reduces to some more limited class of fundamental features.

Fall PHIL2011A S01 16864 Th 4:00-6:30(04) (E. Miller)

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 16748 W 3:00-5:30(17) (N. Arpaly)
PHIL 2080L. Idealism in the Twentieth Century.
After attacks on Bradley and Royce at the beginning of the twentieth century, "idealism" largely became a dirty word. But while both Berkeleyan and Hegelian versions of metaphysical idealism indeed passed out of fashion, versions of Kantian epistemological idealism, the view that what we know of reality is inescapably formed by our own perceptual and conceptual frameworks, continued to underlie both analytic and continental philosophy. This course will pursue this thesis through works by Carnap, Cassirer, Collingwood, Blanshard, Sellars, Davidson, McDowell, and Brandom.
Spr PHIL2080L S01 25460 W 3:00-5:30(10) (P. Guyer)

PHIL 2140L. Skepticism about the A Priori and A Posteriori.
Skepticism about the A Priori and A Posteriori TBD
Spr PHIL2140L S01 25433 Th 4:00-6:30(17) (D. Christensen)

PHIL 2160Q. Ethical and Political Issues in the Writings of James Baldwin and George Orwell.
This seminar will discuss ethical and political issues in a selection of essays and novels by two of the twentieth century's greatest writers: James Baldwin and George Orwell.
Spr PHIL2160Q S01 25430 M 3:00-5:30(13) (F. Ackerman)

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 16727 MWF 9:00-9:50(01) (R. Heck)
Spr PHIL2200 S01 25343 MWF 8:00-8:50(14) (N. Arpaly)

PHIL 2201. Aristotle's Psychology.
An investigation into Aristotle's account of psychological phenomena in his De Anima (On the Soul) and Parva Naturalia (especially On Dreams, On Memory, and Sense and Sensibilia). Topics include perception (both the "special" perceptibles—like colour, sound, and smell—and also more complex perceptual experiences), thought, desire, emotion, memory, imagination, and dreaming. Additional questions include how these phenomena fit into Aristotle's metaphysical theory and challenges they might be thought to offer to contemporary approaches in the philosophy of mind.
Spr PHIL2201 S01 25688 W 3:00-5:30(10) (E. Kress)

PHIL 2202. Philosophy of Gender and Sexuality.
An investigation of recent work on issues connected with gender and sexuality.
Spr PHIL2202 S01 25939 M 3:00-5:30(13) (R. Heck)

PHIL 2450. Exchange Scholar Program.
Fall PHIL2450 S01 15323 Arranged 'To Be Arranged'
Fall PHIL2450 S02 15324 Arranged 'To Be Arranged'
Fall PHIL2450 S03 15325 Arranged 'To Be Arranged'
Spr PHIL2450 S01 24209 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 25344 MWF 9:00-9:50(02) (J. Dreier)

PHIL 2800. Dissertation Workshop.
No description available. Course for graduate students during their 4th year or above.
Fall PHIL2800 S01 16736 MWF 9:00-9:50(01) (J. Dreier)
Spr PHIL2800 S01 25352 MWF 9:00-9:50(02) (A. Pautz)

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 15326 Arranged 'To Be Arranged'
Spr PHIL2970 S01 24210 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 residency requirement and are continuing research on a full time basis.
Fall PHIL2990 S01 15327 'To Be Arranged'
Spr PHIL2990 S01 24211 'To Be Arranged'

PHIL XLIST. Courses of Interest to Philosophy Concentrators.

Physics

PHYS 0030. Basic Physics A.
Survey of mechanics for concentrators in sciences other than physics-including premedical and life science students. Students with more advanced math training are advised to take PHYS 0050, which covers the same topics in physics. Lectures, conferences, and laboratory. Six hours of attendance.
Fall PHYS0030 S01 16499 MWF 11:00-11:50(04) (J. Tang)
Fall PHYS0030 S02 16500 MWF 12:00-12:50(04) (J. Tang)
Spr PHYS0030 S01 25076 MWF 12:00-12:50(05) (J. Tang)

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. Lectures, conferences, and laboratory. Six hours of attendance.
Fall PHYS0040 S01 17246 MWF 12:00-12:50(15) (J. Pober)
Spr PHYS0040 S01 25083 MWF 11:00-11:50(17) (M. Spradlin)
Spr PHYS0040 S02 25084 MWF 12:00-12:50(17) (M. Spradlin)

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 16544 MWF 8:30-9:50(01) (U. Heintz)

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 25097 MWF 8:30-9:50(02) (U. Heintz)

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 16561 MWF 9:00-9:50(01) (J. Valles)

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

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.

Fall PHYS100 S01 16569 TTh 2:30-3:50(03) (S. Gates)

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. Concepts from quantum mechanics, relativity and statistical mechanics will be used to develop a unique perspective on the role of music and physics in our lives. 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 PHYS150 S01 16570 MW 8:30-9:50(01) (S. Alexander)

PHYS 0160. Introduction to Relativity, Waves 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. Prerequisites: PHYS 0070 or 0050. Recommended: MATH 0180 or 0200. S/NC

Spr PHYS160 S01 25121 MWF 9:00-9:50(02) (M. Dorca)

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 PHYS220 S01 25130 TTh 10:30-11:50(09) (J. Pober)

PHYS 0270. Astronomy and Astrophysics.

A complete survey of basic astronomy. Mathematically 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 or an equivalent required for students concentrating in astronomy. The course includes conferences and evening laboratory sessions.

Fall PHYS270 S01 16571 TTh 1:00-2:20(08) (D. Cutts)

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 PHYS470 S01 16572 MWF 10:00-10:50(14) (S. Koushiappas)


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 PHYS500 S01 25131 MWF 10:00-10:50(03) (C. Tan)

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 lectures/demonstration hours and three laboratory hours each week. Required of all physics concentrators. Prerequisites: PHYS 0070, 0160 or 0050, 0060; 0470.

Spr PHYS560 S01 25132 MWF 11:00-11:50(04) (J. Li)

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 PHYS720 S01 16579 MWF 11:00-11:50(16) (A. Volovich)


An introduction to the principles of quantum mechanics and their use in the description of the electronic, thermal, and optical properties of materials. Primarily intended as an advanced science course in the engineering curriculum. Open to others by permission. Prerequisites: ENGN 0040, APMA 0340 or equivalents.

Fall PHYS790 S01 16590 TTh 9:00-10:20(02) (M. Dorca)

PHYS 1170. Introduction to Nuclear and High Energy Physics.

A study of modern nuclear and particle physics, with emphasis on the theory and interpretation of experimental results. Prerequisites: PHYS 1410, 1420 (may be taken concurrently), or instructor permission.

Spr PHYS1170 S01 25138 MWF 2:00-2:50(07) (J. Fan)

PHYS 1250. Stellar Structure and the Interstellar Medium.

This class is an introduction to the physics of stars and their environment. The course covers the fundamental physics that set the physical properties of stars, such as their luminosity, size, spectral properties and how these quantities evolve with time. In addition, it includes a study of the physics that takes place in the gaseous environment surrounding stars, the Interstellar Medium (ISM). The ISM is very important because it contains a wealth of information on the evolutionary history of galaxies, their composition, formation and future. Prerequisites: PHYS 0270, PHYS 0470, or instructor permission. PHYS 1530 (perhaps taken concurrently) is strongly recommended but not required.

Spr PHYS1250 S01 25851 TTh 9:00-10:20(01) (I. Dell'Antonio)

PHYS 1270. Extragalactic Astronomy and High-Energy Astrophysics.

This course provides an introduction to the astrophysics of galaxies, their structure and evolution, with an emphasis on physical introduction of the observations. Underlying physics concepts such as radiative transfer, nuclear reactions and accretion physics will be introduced. Intended for students at the junior level. Prerequisites: PHYS 0270 and PHYS 0470, and either MATH 0190 or MATH 0200, or instructor permission.

Fall PHYS1270 S01 16581 TTh 1:00-2:20(08) (I. Dell'Antonio)

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 PHYS1410 S01 16583 MWF 9:00-9:50(01) (C. Tan)

PHYS 1420. Quantum Mechanics B.

See Quantum Mechanics A (PHYS 1410) for course description.

Spr PHYS1420 S01 25156 MWF 9:00-9:50(02) (A. Jevicki)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
PHYS 1510. Advanced Electromagnetic Theory.
Maxwell's laws and electromagnetic theory. Electromagnetic waves and radiation. Special relativity. Prerequisites: PHYS 0470; and MATH 0180, 0200, or 0350; or approved equivalents.
Fall PHYS1510 S01 16584 TTh 2:30-3:50(03) (J. Fan)

PHYS 1530. Thermodynamics and Statistical Mechanics.
The laws of thermodynamics and heat transfer. Atomic interpretation in terms of kinetic theory and elementary statistical mechanics. Applications to physical problems. Prerequisites: MATH 0180 or 0200 or 0350.
Corequisite: PHYS 1410.
Fall PHYS1530 S01 16585 TTh 10:30-11:50(13) (V. Mitrovic)

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.
Spr PHYS1560 S01 25139 TTh 9:00-10:20(01) (V. Mitrovic)

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++.
Spr PHYS1600 S01 25142 TTh 2:30-3:50(11) (K. Plumb)

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.
Spr PHYS1610 S01 25965 MWF 1:00-1:50(06) (D. Stein)

PHYS 1720. Methods of Mathematical Physics.
Designed primarily for sophomore students in physical sciences. Basic elements of and practical examples in linear algebra, the solution of ordinary and Partial Differential Equation, Complex Analysis and Application to Contour Integrals. Intended to prepare students for the mathematics encountered in PHYS 0500, 1410, 1420, 1510 and 1530.
Pre-requisites: PHYS 0060 or 0160, MATH 0180, 0200 or 0350, or consent of the instructor.
Fall PHYS1720 S01 17657 MWF 11:00-11:50(16) (A. Volovich)

PHYS 1931S. Medical Physics.
Medical Physics is an applied branch of physics concerned with the application of the concepts and methods to the diagnosis and treatment of human disease. It allies with medical electronics, bioengineering, health physics. Students will familiarize with major texts and literature of medical physics and are exposed to imaging and imaging techniques and quality control procedures. Students will acquire physical and scientific background to pose questions and solve problems in medical physics. Topics include: Imaging -imaging metrics, ionizing radiation, radiation safety, radioactivity, computed tomography, nuclear medicine, ultrasound, magnetic resonance imaging, and Radiation Therapy -delivery systems, treatment planning, brachytherapy, image guidance.
Spr PHYS1931SS01 26224 Th 4:00-5:30(17) (E. Klein)

This course will concentrate on String Theory. It will be given at introductory/intermediate level with some review of the background material. Topics covered will include dynamical systems, symmetries and Noether’s Theorem; nonrelativistic strings; relativistic systems (particle and string); quantization, gauge fixing, Feynman’s sum over paths; electrostatic analogy; string in curved space-time; and supersymmetry. Some advanced topics will also be addressed, i.e., D-Branes and M-Theory. Recommended prerequisites: PHYS 0470 and 0500, or 0160.
Spr PHYS1970C S01 25963 TTh 1:00-2:20(08) (A. Volovich)

Topology is a study of the robust properties of geometry, the global stuff that survives wiggles. Topological matter is matter that possesses robust properties that can survive a bit of crud, to the delight of its discoverers. It has breathed new life into topics that have been in textbooks for 75 years. Topics covered include Band Theory, Berry Phase, Topological Insulators, and the Quantum Hall Effect.
Spr PHYS1970G S01 25143 TTh 9:00-10:20(01) (J. Kosterlitz)

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 16588 W 3:00-5:30(17) (R. Gaitskell)
Spr PHYS2010 S01 25144 M 3:00-5:30(13) (V. Mitrovic)

PHYS 2030. Classical Theoretical Physics I.
No description available.
Fall PHYS2030 S01 16590 TTh 9:00-10:20(02) (J. Marston)

PHYS 2040. Classical Theoretical Physics II.
No description available.
Spr PHYS2040 S01 25145 TTh 10:30-11:50(09) (D. Feldman)

PHYS 2050. Quantum Mechanics.
No description available.
Fall PHYS2050 S02 17471 MWF 10:00-10:50(14) (D. Feldman)

PHYS 2060. Quantum Mechanics.
No description available.
Spr PHYS2060 S01 25146 MWF 10:00-10:50(03) (J. Marston)

PHYS 2070. Advanced Quantum Mechanics.
No description available.
Fall PHYS2070 S02 16593 TTh 1:00-2:20(08) (A. Jevicki)

PHYS 2100. General Relativity and Cosmology.
Given every other year.
Spr PHYS2100 S01 25149 TTh 1:00-2:20(08) (S. Alexander)

PHYS 2140. Statistical Mechanics.
No description available.
Spr PHYS2140 S01 25151 TTh 1:00-2:20(08) (R. Pelcovits)

PHYS 2300. Quantum Theory of Fields I.
No description available.
Spr PHYS2300 S01 25152 TTh 9:00-10:20(01) (D. Lowe)

PHYS 2320. Quantum Theory of Fields II.
No description available. Instructor permission required.
Fall PHYS2320 S01 16594 TTh 10:30-11:50(13) (D. Lowe)

PHYS 2410. Solid State Physics I.
No description available.
Fall PHYS2410 S01 16595 MWF 12:00-12:50(15) (A. Gromov)

PHYS 2430. Quantum Many Body Theory.
No description available.
Fall PHYS2430 S01 16596 TTh 10:30-11:50(13) (J. Kosterlitz)

PHYS 2450. Exchange Scholar Program.
Fall PHYS2450 S01 15330 Arranged "To Be Arranged"
Spr PHYS2450 S01 24213 Arranged "To Be Arranged"

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 25154 TTh 2:30-3:50(11) (K. Plumb)

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. Spr PHYS2630 S01 25967 MWF 1:00-1:50(06) (D. Stein)

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 15331 Arranged "To Be Arranged"
Spr PHYS2970 S01 24214 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 residency requirement and are continuing research on a full time basis.
Fall PHYS2990 S01 15332 Arranged "To Be Arranged"
Spr PHYS2990 S01 24215 Arranged "To Be Arranged"

Political Science

POLS 0010. Introduction to the American Political Process.
This course is designed to be an introduction to the American political process, broadly defined. We will cover topics including but not limited to: Constitution, Federalism, Federal Budget, Congress, Presidency, Bureaucracy, Judiciary, Civil Rights, Civil Liberties, Public Opinion, Media, Interest Groups, Political Parties, Campaigns, Elections, and Participation. Fall POLS0010 S01 15724 MWF 12:00-12:50(15) (R. Arenberg)

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. Spr POLS0110 S01 24362 TTh 9:00-10:20(01) (M. Rogers)

POLS 0200. Introduction to Comparative Politics.
Introduces students to the sub-field of comparative politics or politics within states. Topics include types of regimes (i.e., democratic, authoritarian-with-adjectives, totalitarian); transitions to democracy; collapse of democratic regimes; democratizing, revolutionary and ethnic challenges to the state; and globalization. The course also pays attention to modes of analysis in comparative politics. Cases will be drawn from various regions, including Western and Eastern Europe, Asia, Africa, the Middle East, and Latin America. Spr POLS0200 S01 25920 TTh 2:30-3:50(11) (L. Cook)

POLS 0220. City Politics.
Bosses, reformers, states, bureaucrats, politicians, the poor, the homeless, and the citizen. An introduction to the major themes of urban politics. Spr POLS0220 S01 24359 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 POLS0400 S01 15693 MWF 1:00-1:50(06) (R. McDermott)

POLS 0500. Foundations of Political Analysis.
This course provides an introduction for undergraduate students to the methods that political scientists (and other social scientists) use to generate and answer questions about the world around us. This course will provide you with the tools to evaluate critically social science research, and it will improve your ability to pose and answer research questions of your own. Both quantitative and qualitative approaches are covered. Not open to first year students. Fall POLS0500 S01 15723 MWF 11:00-11:50(16) (R. Weitz-Shapiro)

POLS 0820V. Land and Conflict.
This first-year seminar considers the connection between land and political conflict. Disputes over territory have been a primary cause of war for centuries. Likewise, other types of conflicts over land continue to be a major factor in political struggles worldwide. Why, how, and when does territory become the subject of violent—or non-violent—conflict? The seminar will begin by thinking broadly about how land has factored into political conflict, both historically and today, and then we will move on to a series of case studies of recent or ongoing conflicts, including Israel/Palestine, Kashmir, the South China Sea, the Arctic, and global farmland. Fall POLS0820V S01 15578 Th 4:00-6:30(04) (J. Branch)

POLS 0920B. Introduction to Indigenous Politics with Pacific Islander Focus.
This introductory course in Indigenous political thought engages with critical Indigenous thinkers in order to understand Indigenous political praxis, resurgence and decolonization. Because Indigenous study is a series of case studies of recent or ongoing conflicts, including Israel/Palestine, Kashmir, the South China Sea, the Arctic, and global farmland. To that end this course focuses on political movements of contemporary Kanaka Maoli (Native Hawaiian). In addition to developing a fuller understanding of Indigenous political thought, Indigenous politics must be studied in the context of particular indigenous peoples. Spring POLS0920B S01 15733 MWF 12:00-2:50(16) (M. Baker)

POLS 0920C. Media and Democracy.
What role should media play in democracy? What impact do media forms such as social media have on democracy? As Americans increasingly get their news through social media and a wide variety of partisan online sources, they face an array of new challenges in gathering the information necessary of citizenship. The 2016 election and its aftermath added to a long list of worries about how media interacts with democracy—from Russian trolls to partisan bubbles to fake news to manipulative social media algorithms. Yet, at the same time, social media has enabled citizens to participate in shaping and contesting their informational environment in previously unimaginable ways—from #BlackLivesMatter to #MeToo. Fall POLS0920C S01 17521 F 3:00-5:30(11) (R. Meade)
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 antiquities, 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 15573 MWF 10:00-10:50(14) (P. Andreas)

POL 1050. Ethics and Public Policy.
Examines moral foundations of important policy issues in the American national context as well as at Brown. Considers issues like: What is the just distribution of resources and opportunities in society? And complementary policy issues like: affirmative action, immigration, public provision of health care and social welfare. Asks whether/how liberal democracies can come to consensus on contentious moral issues like abortion, and what the ethical roles of politicians and citizens are in such struggles.
Fall POLS1050 S01 15580 TTh 6:40-8:00PM(10) (R. Chett)

POL 1075. Ancients and Moderns.
Examines the political thought of Plato and Aristotle and three modern thinkers who were especially animated by these ancient views of politics: Machiavelli, Rousseau, and Nietzsche. Topics include the ends of politics and the nature of good government; the meaning of justice; the value of equality and of hierarchy; the nature of freedom; the role of virtue in political life; and the relationship between philosophy and politics. In reading these ancient and modern thinkers together, we gain a richer understanding of both the quarrels and the continuities between ancient and modern political thought – and the dynamic relationship between them.
Fall POLS1075 S01 17061 TTh 9:00-10:20(02) (S. Krause)

POL 1100. U.S. Congress.
The Founders established the U.S. Congress in Article I of the Constitution. It created that body as guardian of the nation’s purse strings and empowered it to "make all laws necessary and proper." Will examine the Congress’s structure, rules and procedures, traditions, precedents, campaigns, elections, parties, budget process, Member’s constituencies and role in the system of checks and balances with the president and the courts. The impact of procedure on policy outcomes and the impacts of the 2020 election on the House and Senate will be explored. The course will consistently relate the characteristics and history of Congress to current events.
Spr POLS1100 S02 25848 TTh 1:00-2:20(08) (R. Arenberg)

POL 1130. The American Presidency.
The origins and evolution of the Presidency in the American political and policy-making system. Special emphasis on the impact of presidential policies from Franklin Delano Roosevelt through Donald Trump; the presidential nomination and general election system with special focus on the 2020 election; and an exploration of the future challenges facing the winner of the 2020 Presidential election. The course will consistently relate the characteristics and history of the presidency to current events.
Spr POLS1130 S01 24377 TTh 10:30-11:50(09) (R. Arenberg)

POL 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 24372 TTh 2:30-3:50(11) (P. Testa)

POL 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 15722 TTh 10:30-11:50(13) (J. Tomasi)

The course examines governmental powers under the United States Constitution, addressing the powers of Congress, the President, and the courts, as well as the relationship between the national and state governments. The primary reading materials will be leading Supreme Court cases, supplemented by additional reading materials on history and legal theory. The course will consider the role of the courts in enforcing constitutional principles in a democratic system, as well as theories of constitutional interpretation and constitutional change.
Fall POLS1160 S01 15578 TTh 1:00-2:20(08) (C. Bretschneider)

POL 1200. Reimagining Capitalism.
Debates over capitalism and its alternatives date back centuries. Proponents say that market institutions have enabled extraordinary productivity growth and life-saving innovations. Trade and the division of labor have been central to human progress in recent centuries. Capitalism’s critics point out that the growth of market economies has often had unacceptable consequences. The course is organized around four main challenges facing market economies today: environmental degradation, labor exploitation, inequality, and crisis. Can capitalism be reformed to solve the problems that it has helped generate, or is a market system unequipped to grapple with social and environmental challenges?
Fall POLS1200 S01 17780 TTh 8:30-10:00(01) (R. Locke)

POL 1210. Latin American Politics.
Focuses on political and economic transformation in contemporary Latin America. Special attention is given to the processes of market-oriented economic reforms and democratization that have swept the region during the last twenty-five years. Includes in-depth country case studies where key themes can be discussed and elaborated.
Fall POLS1210 S01 15718 MWF 1:00-1:50(06) (R. Snyder)

POL 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 24373 TTh 10:30-11:50(09) (A. Varshney)

POL 1310. African American Politics.
Focuses on the contemporary African American politics in various spheres of the American political environment. Examines also how the concept of an African American community has evolved and shifted historically. We will pay particular attention to the growing diversity within the African American community and discuss what these changes mean for black political participation, representation, and organizing.
Spr POLS1310 S01 24361 MWF 1:00-1:50(06) (M. Orr)

POL 1315. Social Groups in American Politics.
In this course, students examine the politics of social groups in order to gain a broader perspective of the American political process. Topics can vary, and include a review of the major developments in American politics for historically discriminated groups including women.
Spr POLS1315 S01 24370 TTh 9:00-10:20(01) (K. Tate)
This course grapples with the problem of slavery and its connection to the political and psychological logic of white supremacy. Students will critically interrogate America's attempt to grapple with black pain and white guilt. The course will also explore and critically evaluate the various responses African Americans have offered in their quest to realize freedom. We will see that African American political thought is not exclusively a response to social and political domination, but also contains a rich philosophical vision of human fulfillment, self-governance, and the good life.
Fall POLS1335 S01 17148 MWF 2:00-2:50(07) (M. Rogers)

POLS 1360. U.S. Gender Politics.
This course covers the politics of U.S. women as activists, voters, candidates, and elected officials. What explains the emergence of the modern-day women’s movement? How do women win political seats? Do women legislate differently than men? How did women become legislative and party leaders? How does sexuality and gender affect U.S. electoral politics? This course will also consider the ways in which social class, race-ethnicity, marital status, parenthood, feminism, religiosity, political orientation, and cultural beliefs or stereotypes influence women’s public policy and social beliefs. To what extent does gender define all women’s political and social viewpoints?
Fall POLS1360 S01 15720 MWF 9:00-9:50(01) (K. Tate)

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.
Spr POLS1440 S01 25064 MWF 9:00-9:50(02) (R. Blair)

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 S02 17260 MWF 12:00-12:50(15) (N. Tannenwald)

POLS 1600. Political Research Methods.
Introduction to quantitative research methods in political science. Topics include research design, descriptive statistics, statistical hypothesis testing, and bivariate and multivariate regression. By the end of the course, students will have the requisite skills to intelligently consume and produce basic quantitative social science research. Enrollment limited to 24 sophomore, junior, and senior Political Science, International Relations, or Public Policy concentrators.
Fall POLS1600 S01 15721 MWF 11:00-11:50(16) (P. Testa)

This is the ultimate PPE course (Philosophy, Politics, and Economics). Will explain the big changes in world politics and political economy over the last two hundred years. Why did slavery end? Why did European imperialism and colonialism fade away? Why did World Wars happen? Why did the great powers set up a system of international trade and finance and who benefits from that system? What are the politics of migration? How do global oil politics work? Course is designed to provide students with a broad introduction to the field of international political economy to help address questions like these ones.
Spr POLS1730 S01 25075 MWF 10:00-10:50(03) (J. Colgan)

POLS 1770. Education, Inequality, and American Democracy.
How are public schools and the educational programs they offer products of political inequality? How might public schools remedy those inequalities or exacerbate them? This course examines the ways in which education contributes to democratic governance; how the development of American public schools builds on and reproduces political, economic and social privilege and inequality; and the promise and limitations of various types of reforms designed to redress inequality, including the Common Core. This course focuses primarily on the United States, but looks to other democracies, including Canada and Mexico, to understand the intersection of education, inequality and democratic governance.
Spr POLS1770 S01 24358 MWF 2:00-2:50(07) (S. Moffit)

POLS 1820D. Civil Liberties: Moral, Political and Legal Approaches.
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. Topics include free speech, privacy, abortion, takings and capital punishment. Prior course work in political theory or philosophy recommended. Enrollment limited to 20 juniors and seniors concentrating in Political Science.
Spr POLS1820D S01 24338 F 3:00-5:30(15) (C. Brettschneider)

POLS 1820E. Pragmatism in Black and White: Race, Domination, and Democratic Faith.
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 intellectual life 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 15707 M 3:00-5:30(05) (M. Rogers)

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.
Spr POLS1820H S01 24332 M 3:00-5:30(13) (P. Andreas)

POLS 1820I. Indigenous Politics in Hawai‘i: Resurgence and Decolonization.
How kinship relationships to land and all existents of that land are fundamental to Indigenous Peoples, resurgence and decolonization must be studied in the context of specific Indigenous Peoples and the ways they resist colonial violence and build resilient practices. This course then focuses on these issues with respect to Kanaka Maoli (Native Hawaiians). We will read works from Kanaka Maoli scholar/activists in order to understand the genealogy of Kanaka Maoli resistance and resurgent practices. We also engage with critical Indigenous thinkers in order to understand Indigenous political praxis that is shared across difference and those that are not.
Fall POLS1820I S01 15732 T 4:00-6:30(09) (M. Baker)

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 24384 T 4:00-6:30(16) (J. Robbins)
POLS 1821V. Democracy and Inequality in American Cities.
Explores the relationship between democracy and inequality in contemporary American cities. The seminar considers different kinds of inequality - economic, political and group/horizontal – from the standpoint of national politics in the United States. The focus then shifts to the literature on urban politics in the United States, assessing the major contrasting theoretical perspectives on the causes of local inequalities in American cities. Finally, we focus on unequal access to public safety and justice. Over the course of the semester, students will be expected to carry out “fieldwork” involving first-hand observation of local inequalities in the Greater Providence area.
Fall POLS1821V S01 15725 M 3:00-5:30(05) (R. Snyder)

POLS 1822A. Nuclear Weapons and International Politics.
This seminar explores the causes and consequences of nuclear weapons proliferation in international politics. Each week we will explore a different dimension of nuclear proliferation, drawing on academic theory and historical evidence. Specific topics examined include the causes of nuclear proliferation, nonproliferation and counterproliferation policies, nuclear strategy, the effect of nuclear weapons on international conflict, and nuclear terrorism. Enrollment limited to 20 junior and senior Political Science or International Relations concentrators.
Fall POLS1822A S01 17261 M 3:00-5:30(05) (N. Tannenwald)

Will tackle the “hard problems” governments sometimes have to deal with. For example, while governments are often coaxed and enjoined to produce economic growth, especially during recessions, do something about economic inequality and social mobility, and improve the life chances of millions through purposive action, actually delivering these things is incredibly hard. These areas constitute “hard problems” for two main reasons. Economically, we don’t really have much of a clue about how to do many of these things. Politically, there are powerful interests that like these areas of policy just as they are, and they work to keep them “hard problems.”
Fall POLS1822G S01 15680 M 3:00-5:30(05) (M. Blyth)

POLS 1822I. Geopolitics of Oil and Energy.
Oil is the single most valuable commodity traded on global markets. This course is designed to introduce students to the international political economy and security dimensions of oil and energy. The course explores the industry’s many impacts on politics and economics, including: Dutch disease and the resource curse; the relationship between oil, authoritarianism, and civil wars; the role of the rentier state; the influence of oil on international warfare; global energy governance (e.g., OPEC); political differences within OPEC; US energy policy and energy security. The materials focus primarily on the political economy of oil-exporters, especially those in the Middle East.
Spr POLS1822I S01 24340 W 3:00-5:30(10) (J. Colgan)

POLS 1822S. The Politics of Urban Transformation.
This seminar examines political economic change in U.S. cities. The seminar considers various external forces that act upon the city, principally: (a) migration patterns, (b) economic and technological change, and (c) public policy. We will also consider how various groups and political leaders respond to these forces and on what resources they draw. The seminar pays special attention to political and economic change in Providence, Rhode Island. Enrollment limited to 20 juniors and seniors in Political Science, Public Policy, and Urban Studies.
Fall POLS1822S S02 17062 W 3:00-5:30(05) (M. Orr)

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.
Fall POLS1822W S01 15733 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.
Spr POLS1822X S01 24337 M 3:00-5:30(13) (J. Branch)

POLS 1823E. Global Justice.
Theories of global justice treat “free market capitalism” as a problem that the theory of global justice is meant to redress. What about from the perspective of the world’s most poor, a system of free markets may constitute a form of global justice. We consider an interpretation of global justice that is launched from libertarian mantra, “Free Trade, Free Migration, and Peace.” What are the attractions, and shortcomings, of such an ideal global? In what sense, if any, might a global system of open markets claim to be fair or just, especially with respect to the poor and disadvantaged?
Spr POLS1823E S01 24376 W 3:00-5:30(10) (J. Tomasi)

POLS 1823H. Public Opinion.
We will examine public opinion on a variety of current issues. The course’s principal objective is to help students understand the role of public opinion in democratic governments. In addition, students learn how to integrate data analysis into their analysis of public opinion trends. Enrollment limited to 20 juniors and seniors concentrating in Political Science and Public Policy.
Spr POLS1823H S01 26159 4:00-6:30(17) (K. Tate)

POLS 1823Z. Gender and Public Policy.
This course explores when and how gender matters to U.S. policymaking, and how views about gender affect the development and implementation of different kinds of public policies. The course will examine gender in the context of key parts of the policymaking process including agenda-setting, group mobilization, issue framing, institutional decision-making (in the executive, legislative and judicial branches), and policy implementation. Class readings will cover four different public policy domains including social welfare policy, health policy, abortion rights, and marriage equality. Students will be able to examine other policy domains in the course of classroom discussions and in their written work.
Fall POLS1823Z S01 15686 Th 4:00-6:30(04) (S. Moffitt)

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.
Spr POLS1824G S01 24339 Th 4:00-6:30(17) (R. Cheit)

POLS 1824T. Foreign Policy in the People’s Republic of China.
Will examine the foreign policy of the People’s Republic of China. Will teach students theoretical perspectives on international relations and critically evaluate whether these theories explain past and present Chinese foreign policy. What explains China’s historical use of military force? Why did the alliance between China and the Soviet Union fall apart despite their institutional and ideological similarities? Has China’s leaders or its domestic institutions affected its international behavior? Why is China modernizing its military and how concerned should we be? To what extent has the world changed China and to what extent does it seek to change the world?
Fall POLS1824T S01 17063 M 3:00-5:30(05) (T. Jost)
POLS 1971. Individual Reading and Research
Section numbers vary by instructor. Please check Banner for the correct students who are completing their theses should enroll. Prerequisite: This course is a continuation of POLS 1910. Political Science Honors fulfillment of Methods requirement. Enrollment limited to 20 senior students only; qualified undergraduates with instructor permission.

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.

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.

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.

POLS 1824U. Bleeding Heart Liberalism.
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. Instructor permission required.

POLS 1824V. Women in Western Political Thought.
Much of the tradition of western political philosophy has either ignored or justified the subordination of women, despite elucidating principles of alleged universality. This course challenges the traditional “canon” of western political thought by recovering a long—and often forgotten—history of debates, ideas, and texts written by, about, and for women. This course is intended for upper-division undergraduate students. Its methodological approach emphasizes close readings of texts in their historical context, but also draws on the approaches of contemporary feminist political philosophy as a framework for discussion and debate. Instructor permission required.

POLS 1824W. Political Violence.
This course explores the main debates on the causes and consequences of political violence. We will focus on three major topics: civil wars, state-sponsored violence, and terrorism. Since the end of World War II, domestic conflict has largely outpaced international wars as the dominant type of violence. But what makes civil wars so prevalent in recent years? What are the conditions under which a state decides to attack its own citizens? Why do some groups resort to terrorism while others use nonviolent tactics?

POLS 1824X. People and populism: constructions, discourses and critique.
Populism and populist politics are everywhere. However, it is far from being entirely clear what populism is and what this category ought to include. Prominent philosophical paradigms conceive populism as an ideology, as a discursive frame, as a strategy of mobilization, as a special configuration of political power inside and (maybe) outside liberal democracies. By combining sources from history of political thought and ideology critique with the most recent developments in the field, this seminar looks at how the people has been constituted, re-constituted, constructed and de-constructed in modern and contemporary times.

POLS 1912. Comparative Politics Grad Research Workshop.
This course will explore such questions, as illuminated by a variety of texts in the libertarian tradition, classical and contemporary. Instructor permission required.

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. Prerequisite: POLS 2050.

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. Prerequisite: POLS 2050.

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.

Explores major works that span the range of theoretical approaches and intellectual styles in modern comparative research. Includes in-depth interviews with leading scholars where they reflect on their intellectual formation, their works and ideas, the nuts and bolts of the research process, and the evolution of the field. Enrollment limited to 14. Graduate students only; qualified undergraduates with instructor permission.

POLS 2100. Proseminar in American Politics.
Introduction to broad issues in American politics. Topics include the interplay of political institutions in the American setting, public opinion formation, the process of policy-making, and voting behavior. Enrollment limited to 14. Graduate students only; qualified undergraduates with instructor permission.

POLS 2111. Comparative Politics Grad Research Workshop.
The Comparative Politics Research Workshop will be a new core element of the doctoral program in the Political Science department aimed at helping students transition effectively from the coursework phase of the PhD to doing their own independent scholarship and presenting it in a public forum. The course will be required for all Political Science PhD students working in the area of comparative politics, will also be an available resource for doctoral students in other social science departments who are conducting research on topics relating to the politics, political economy, and society of countries around the globe.

POLS 2121. Comparative Politics Grad Research Workshop.
This course is a continuation of POLS 2111. Prerequisite: POLS 2111.

POLS 2130. Proseminar in International Relations.
Surveys the main theoretical trajectories and intellectual disagreements that define International Relations as a discipline today. Positions examined include varieties of rationalism and constructivism; realism-liberalism-sociological approaches; and systemic and subsystemic theories. Also considers debates about the contours of contemporary world politics, America and the world, moral issues, and the links between theory and policy. Enrollment limited to 14. Not open to undergraduates.

POLS 2140. Post Cold War Conflict.
Course explores the nature and causes of post-Cold War conflict. We’ll discuss the end of the Cold War, as well as prominent contemporary themes, such as the spread of ethnic warfare and humanitarian intervention, the privatization of security provision, and the proliferation of “transnational threats” such as cross-border crime and terrorism. Enrollment limited to 14. Graduate students only; qualified undergraduates with instructor permission.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
POL 2185. Political Theory of the American Constitution.
This course will examine major constitutional controversies within the context of wider debates in political and legal theory. Readings will come from Supreme Court cases and prominent texts in political/legal theory. Topics will include free speech, privacy, abortion, and capital punishment. Our aim is two fold. We want to understand the basic framework and content of the United States constitution as it has been elaborated by the Supreme Court. But we also want to go beyond this legal understanding and to challenge existing jurisprudence. To this end we draw on classic and contemporary texts in political theory.
Fall POLS2185 S01 17371 Th 4:00-6:30(04) (C. Brett Schneider)

This graduate seminar examines contemporary scholarship on international conflict. The course seeks to familiarize students with salient theoretical perspectives and debates, with an eye to-ward assisting students in conducting original research. Course topics include rationalist and psychological frameworks, domestic institutions, leaders and advisers, international institutions, norms and culture, technology, diplomacy, and power transitions. Course readings include a range of qualitative, quantitative, and experimental methods.
Spr POLS2265 S01 25474 Th 1:30-4:00(11) (T. Jost)

POL 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 16661 Arranged (05) (A. Varshney)

POL 2360. Ancients and Moderns: Quarrels and Continuities.
Examines the political thought of Plato and Aristotle together with three modern thinkers whose work was especially influenced (or animated) by engagement with these ancient views of politics: Machiavelli, Rousseau, and Nietzsche. In exploring these moderns in particular, we also get a view of early modern, high modern, and postmodern receptions of the ancients. Enrollment limited to 14. Open to graduate students.
Fall POLS2360 S01 16648 W 8:30-11:00(01) (S. Krause)

POL 2450. Exchange Scholar Program.
Fall POLS2450 S01 15336 Arranged 'To Be Arranged'
Spr POLS2450 S01 24218 Arranged 'To Be Arranged'

POL 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 15728 M 6:30-9:00PM(05) (P. Testa)

POL 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 24334 M 3:00-5:30(13) (R. Blair)

POL 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 17149 TTh 10:30-11:50(13) (P. Sobral)

POL 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.

POL 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.

POL 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.

POL 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall POLS2990 S01 15337 Arranged (R. Cheit)
Spr POLS2990 S01 24219 Arranged "To Be Arranged"

POL 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 010. 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 POBS010 S01 16630 TTh 10:30-11:50(13) (P. Sobral)
Fall POBS010 S01 16630 MWF 12:00-1:50(13) (P. Sobral)
Spr POBS010 S01 25065 TTh 9:00-10:20(05) (P. Sobral)
Spr POBS010 S01 25065 MWF 12:00-1:50(05) (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 25063 MW 2:00-2:50(07) (P. Sobral)
Spr POBS0200 S01 25063 TTh 1:00-2:20(07) (P. Sobral)

This course explores the Lusophone world via-à-vis the local, regional, and national culinary traditions of Brazil, Portugal, Luso-Africa, and Goa. Through a broad selection of cultural materials (music, film, television series, short stories, poems, visual art, etc) about cuisine in the Lusophone world. Students will gain introductory knowledge of Portuguese through brief instructional lessons. The class meets every 3-4 weeks to prepare and cook a class meal based on regional cuisines. This course focuses on creating; from a class zine to creative projects. The class will be taught in English with elements of Portuguese. No previous Portuguese language experience required.
Fall POBS0280 S01 17149 TTh 10:30-11:50(13) (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.

Fall POBS0400 S01 16632 MW 10:00-10:50(13) (N. Parker)
Fall POBS0400 S01 16632 TTh 10:30-11:50(13) (N. Parker)
Spr POBS0400 S01 25066 MW 10:00-10:50(03) (N. Parker)
Spr POBS0400 S01 25066 TTh 10:30-11:50(03) (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 16633 TTh 1:00-2:20(08) (L. Lehnen)

POBS 0620. Mapping Portuguese-Speaking Cultures: Portugal and Africa.
Selected literary and cultural texts that serve as vehicles for a deeper understanding of Portuguese and Luso-African societies. Literary materials will be taken from several genres and periods with special attention to contemporary writings. Other media such as film and music will also be included. Considerable emphasis on strengthening speaking and writing skills. Prerequisite: POBS 0400, placement or instructor's permission. Conducted in Portuguese.
Spr POBS0620 S01 25072 TTh 2:30-3:50(11) (L. Simas-Almeida)

POBS 0711. Brazilian Democracy in Literature and History.
This course examines the concepts and practices of democracy through the history of its origins and transformations in Brazil from the twilight of slavery in the 1870s to the recent election of Jair Bolsonaro. The seminar, taking a cross-disciplinary approach to historical documents, historians' narratives, literary texts, and cultural productions, explores how different intellectuals and political actors have understood the notions of democracy, both in theory and in practice. Students will engage with a variety of genres including film and collaborate on the production of short podcasts. Conducted in English.
Fall POBS0711 S01 17465 F 10:30-1:00(16) (L. Lehnen)

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.
Fall POBS0810 S01 16634 TTh 9:00-10:20(02) (P. Sobral)

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.
Fall POBS0910 S01 16641 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 Díaz, Milton Hatoum, Chang-Rae Lee, Clarice Lispector, Dinaw Mengestu, Nélida Piñon, Salman Rushdie, Taiye Selasi and others. No experience in the arts necessary.
Spr POBS0990 S01 25070 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.
Fall POBS1030 S01 16637 T 12:00-2:30(08) (L. Simas-Almeida)

POBS 1080. Performing Brazil: Language, Theater, Culture.
Designed to deepen the students' understanding of Brazilian culture and society through the performing arts. Students will read a series of plays and respond to them in a variety of ways: in writing, verbally, and through performance. The course will include poetry and music as these can also be performed. Throughout the semester students will also be working on creating their own performance pieces. Conducted in Portuguese.
Spr POBS1080 S01 25071 F 9:00-11:50(02) (P. Sobral)

POBS 1210. Afro-Brazilians and the Brazilian Polity (AFRI 1210).
Interested students must register for AFRI 1210.
Fall POBS1210 S01 17406 Arranged 'To Be Arranged'

POBS 1500A. African Literatures of Portuguese Expression.
A survey of representative African narrative literature of Portuguese expression (Cape Verde, Guinea-Bissau, São Tomé e Príncipe, Angola, and Mozambique). The selections will cover the periods before and after the independence of these former Portuguese colonies. Conducted in Portuguese. Enrollment limited to 40.
Spr POBS1500A S01 25073 Th 4:00-6:30(17) (L. Simas-Almeida)

POBS 1520. Latin American Horror (GNSS 1520).
Interested students must register for GNSS 1520.
Fall POBS1520 S01 17409 Arranged 'To Be Arranged'

POBS 1601M. Migrants, Political Activism and the Racialization of Labor.
Migrant marginalization, criminalization and the racialization of progressive politics and labor activities. Evolving, fluid and often contradictory intersections of racial and ethnic categorizations in law and discourse among Portuguese-speaking migrants coming to North America over the 20th century from Europe and Africa will provide a primary case example/starting point to expand understandings of how racial identities are constructed, maintained and used to deny migrants’ access to civic/ political participation. Topics include socialist and communist labor movement; anti-immigrant laws; industrial capitalism’s exploitation of migrant labor and role in racial marginalization; migrant agency and action for change. Conducted in English.
Fall POBS1601M S01 17539 T 3:00-5:30(03) 'To Be Arranged'

POBS 1601N. Politics of Indigeneity in Brazil (LACA 1503Q).
Interested students must register for LACA 1503Q.
Fall POBS1601N S01 17445 Arranged 'To Be Arranged'

POBS 1670. History of Brazil (HIST 1310).
Interested students must register for HIST 1310.
Fall POBS1670 S01 17410 Arranged 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
POBS 1720. Literacy, Culture, and Schooling for the Language Minority Student.
Focuses on increasing awareness of the intersection of language and literacy, the sociocultural influences on literacy development, and the application of diverse strategies that support the acquisition of second-language literacy. Combines a theoretical exploration of literacy processes and methodological implications with a clinical requirement of four hours weekly in a second-language field-teaching practicum. Conducted in English.
Fall POBS1720 S01 16654 Th 4:00-6:30(04) (S. Smith)

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.
Fall POBS1750 S01 16655 T 4:00-6:30(09) (M. Pacheco)

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

This independent study course is designed for students working on honors projects. Written permission of the concentration advisor (Prof. Sobral) is required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

POBS 2010A. Language Theory and Curriculum Development.
Focuses on the application of language theory, methodology, and curriculum development procedure for classes enrolling English language learners. Participants focus on setting appropriate goals and objectives aligned with learning standards and develop appropriate curricula in several subject areas. Conducted in English.
Spr POBS2010AS01 25162 T 4:00-6:30(16) (M. Pacheco)

POBS 2020A. Applied Linguistics for ESL.
Focuses on the linguistic development of bilingual children. Addresses three major dimension of language acquisition-linguistic, cognitive and sociocultural-within educational contexts for students of all ages. Conducted in English. Enrollment limited to 15 graduate students.
Spr POBS2020AS01 25163 Th 4:00-6:30(17) (S. Smith)

POBS 2500E. Portuguese Cultural and National Identity.
A critical reading of some key issues in Portuguese intellectual history regarding Portuguese national identity. Classical authors such as Verney, Antero de Quental, Teixeira de Pascoal, Fernando Pessoa, António Sérgio, and Eduardo Lourenço are read along with contemporary theoretical works on the issue of cultural and national identity. Conducted in Portuguese.
Fall POBS2500ES01 17507 T 6:00-8:30PM(10) (O. Almeida)

POBS 2500G. Nation and Narration.
The invention and transformation of the idea of Brazil as a nation narrative texts since the middle of the 19th century. Manuel Antônio de Almeida, José de Alencar, Adolfo Caminha, Machado de Assis, Monteiro Lobato, Mário de Andrade, Adalzira Bittencourt, Antônio Callado and João Ubaldo Ribeiro. Theoretical texts by Benedict Anderson, Homi Bhabha, Edward Said, Eric Hobsbawn, Frantz Fanon, Roberto Schwarz and others. Conducted in Portuguese.
Fall POBS2500GCS01 16840 M 3:00-5:30(05) (L. Valente)

POBS 2600B. Saramago and His Contemporaries.
Focuses mainly on the oeuvre of José Saramago, the recently deceased Portuguese Nobel Prize winner. Four other well-known Portuguese writers (Vergerio Ferreiro, Agustina Bessa-Luís, António Lobo Antunes, Lídia Jorge) are also studied as a way of contextualizing Saramago's work but, more importantly, for their own merit as outstanding novelists. Complementary readings will mostly consist of theoretical texts concerning an approach to contemporary novels based on the nexus between history and fiction on the one hand, and the construction of emotions in literature on the other. Conducted in Portuguese. Enrollment limited to 25.
Fall POBS2600BS01 16839 Th 4:00-6:30(04) (L. Simas-Almeida)

POBS 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.
Fall POBS2970 S01 15334 Arranged 'To Be Arranged'
Spr POBS2970 S01 24216 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 Banner for the correct section number and CRN to use when registering for this course.

POBS 2990. Thesis Preparation.
For graduate students who have met the residency requirement and are continuing research on a full-time basis.
Fall POBS2990 S01 15335 Arranged 'To Be Arranged'
Spr POBS2990 S01 24217 Arranged 'To Be Arranged'

Public Affairs

MPA 2040. Statistics for 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 17706 Arranged (N. Thakral)

MPA 2055. The Politics of Policymaking in Comparative Perspective.
This course provides a broad introduction to public policy forces which policymakers operate. Policymaking and politics are often held as separate spheres. There is a tendency to view politics as something to be recognized and controlled. In reality, policymakers are often faced with unavoidable political issues. Issue areas that relate to the political context of policymaking include: Why do some countries have stable institutions while others are subject to frequent regime change? Why do some institutional arrangements facilitate compromise and negotiation, while others impose obstacles to effective governance? Why do some policies privilege certain groups and marginalize others?
Fall MPA2055 S01 17283 M 3:00-5:30(05) (J. Ziegler)

MPA 2065. Introduction to Data Science and Programming.
We live in the era of data-driven decision making in all aspects of our lives. The features on your iPhone, the images in an ad campaign, even the background colors on many websites are all carefully tested and chosen against their measurable impact on customer satisfaction, purchasing, clicks, or some other goal. In this course, we will be learning to use and apply those same principles to public policy and government programs. Our goal is to equip MPA students with the tools required to set up experiments, gather data, and begin to evaluate and design public policy and government programs.
Fall MPA2065 S01 17776 Th 4:00-6:30(04) 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 26248 MW 3:00-5:30(10) (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 17284 F 9:00-11:30(01) (R. Boucher)

This course introduces students to concepts and tools relevant to making public decisions informed by social values. It equips students to define problems and to systematically develop and compare policy options available to public actors. In short, the course teaches students to "think like a policy analyst" and reason in the public interest. In addition, the course is attentive to the political and institutional context in which policy decisions are made.

Fall MPA2445 S01 17089 TTh 1:00-2:20(08) (E. Patashnik)

MPA 2450. Macroeconomics for Public Policy.
This course provides an overview of macroeconomics for public policy. It builds on skills and concepts introduced in the statistics, microeconomics and program evaluation summer courses. We will introduce concepts around international trade, monetary and fiscal policies, business cycles as well as economic growth. Within the course, the segment on international trade will highlight the importance of the global economy. At the completion of this course students will be able to analyze and discuss how public policy interacts with the broader economy and how changes in the global economic conditions impact the economy as a whole.

Fall MPA2450 S01 17703 Arranged (A. Switala)

MPA 2455. Statistics for Public Policy.
Covers social and economic statistics and their role in public policy research. Among the topics explored are descriptive and inferential statistics, measurement, sampling, and multivariate analysis.

Fall MPA2455 S01 17705 Arranged (J. Friedman)

MPA 2460. Economics for Public Policy.
Examines issues in government spending and tax policy. Conceptual topics include the normative assignment of responsibility with federal systems and the equitable distribution of income. Specific policy applications are covered.

Fall MPA2460 S01 17704 Arranged (E. Oster)

This course examines efforts that work toward social justice in contemporary political and social life. The class begins by evaluating different perspectives on how to define social justice. We consider the special challenges involved in defining social justice across borders or in diverse communities. We then examine strategies and channels used to promote social change.

Spr MPA2475 S01 26247 MW 8:30-11:30(02) "To Be Arranged"

MPA 2601. Envisioning and Building Prosperous, Inclusive Communities.
Great communities do not happen by accident. Great communities take vision, thoughtful planning, participation and an inclusive civic engagement plan. The top communities in our country engage diverse leaders, acknowledge the complex and inextricable tie between community and economic development, are accountable – measuring their progress, and are fiercely competitive. This course will focus on the planning, creation, and implementation of successful community development plans from across the country. Specific topics that will be covered include: Collective Impact, the utilization of data, the role of sustainability, health, education, art, transportation, and parks, evaluation methodology, communication, and working with local governments.

Fall MPA2601 S01 17698 F 3:00-5:30(11) "To Be Arranged"

MPA 2603. Leadership and Social Change.
Our societies, organization, communities often face pressures and challenges that require acts of leadership. If you have ever felt or are currently feeling “called” to fix a specific problem on behalf of a specific community or social group, this course will help answer some of your questions. Based on Dr. Ron Heifetz and Dr. Marty Linsky’s theory of leadership called Adaptive Leadership, this seminar will not only allow you to get acquainted with its main theoretical concepts but also give you the opportunity to apply them, in a large class and small group settings.

Fall MPA2603 S01 17697 TTh 10:30-11:50(13) "To Be Arranged"

MPA 2605. How do you conduct research that changes Public Policy?
This course is a hands-on exploration of how evidence is used—and not used—in the real-world trenches of day-to-day government, with the aim of teaching you how to conduct and use research in ways more likely to have a meaningful impact on public affairs. We’ll explore by way of applied exercises and contributing work on real projects. Projects span from the world’s largest field experiment of a police body-worn camera program, to algorithms that predict the location of city rats, to a Form-a-Palooza that seeks to systematically redesign all government forms based on insights from the behavioral sciences.

Fall MPA2605 S01 17752 T 4:00-6:30(09) (D. Yokum)

The course studies why so many public policy problems are challenging and often lead to disappointing results or outright failure. Students learn to conceptualize a social problem as a set of structures and policies that create dynamics and govern performance. The course introduces the tools of system dynamics for modeling and analyzing public policy. Using role playing games, simulation models, and management flight simulators, we develop insights essential to managing in a world characterized by dynamic complexity. Case studies include applications of system dynamics in healthcare, environmental policy, project management, and implementation of improvement programs.

Spr MPA2775 S01 26249 T 4:00-7:00(16) (E. Patashnik)

MPA 2772. Disaster, Displacement and Response: A Practitioner, People-Focused Lens on Urban Policy & Practice.
Applying a practitioner’s view and working from scenarios will allow students to examine practical elements of delivery as well as the complexities of coordination in an emergent arena. This class will create both empathy and urgency - fueled by stories the class can explore together. The aim is to examine commonalities in the experiences of displaced people with respect to how cities respond across the world and to create a people-centered lens for examining effective responses.

Assignments will focus on creating convincing presentations – making a case for what works and what cities may learn from one another.

Spr MPA2772 S01 26251 TTh 9:00-12:00(01) (A. Blanchard)
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 26246 Arranged (W. Allen)

MPA 2981. Independent Graduate Study.
This is an independent study course for the MPA program.

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.

Spr PHP0030 S01 24914 TTh 6:40-8:00PM(18) (T. Empkie)

PHP 0050. 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 health care 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. Instructor permission required.

Fall PHP0050 S01 17009 TTh 9:00-10:20(02) (N. Trivedi)

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

Spr PHP0310 S01 24956 MWF 12:00-12:50(05) (I. Wilson)

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

Fall PHP0320 S01 16098 MWF 11:00-11:50(16) (M. Clark)

PHP 0850. Fundamentals of Epidemiology.
As the cornerstone of public health, a strong foundation in epidemiology provides students with the ability to investigate, clarify 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 16099 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 biocultural 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.

Fall PHP1070 S01 16101 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.

Fall PHP1100 S01 17202 MW 10:00-11:20(14) (O. Galarraga)

Provides an introduction to the classification, epidemiology, etiology, treatment and potential prevention of psychiatric disorders from a population perspective. Reviews the magnitude and social burden associated with mental disorders worldwide and opportunities to enhance prevention and treatment.

Covers concepts and methods used to study mental illness at the population level, including definitions of “normality” and “pathology”, current classification systems and measurement approaches to assess psychopathology and severity and cross-cultural issues.

Covers the prevalence, risk factors, and etiology of major disorders of children, adolescents and adults, including autism spectrum disorders, attention deficit disorders, mood and anxiety disorders, schizophrenia and substance use disorders. PHP 0850 OR prior coursework in psychology, epidemiology, sociology or related fields.

Spr PHP1160 S01 25643 T 12:00-2:30(08) (S. Buka)

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 16103 TTh 1:00-2:20(08) (R. Gutman)

PHP 1510. Principles of Biostatistics and Data Analysis.
This course is intended to provide a basic foundation in the methods and applications of biostatistics, and is geared towards the students whose fields of study include a substantial statistical or quantitative component. Ideally, this course is the first in a two-part sequence (the sequel being PHP 1511/2511: Applied Regression ), designed to provide students in the public health, biological and life sciences with broad-based exposure to modern methods of biostatistical inference, in addition to an understanding of underlying mathematical principles and motivations.

Fall PHP1510 S01 16108 TTh 9:00-10:20(02) (A. Sullivan)

This course provides a survey of regression techniques for outcomes common in public health data including continuous, binary, count and survival data. Emphasis is on developing a conceptual understanding of the application of these techniques to solving problems, rather than to the numerical details. Extensive use of the computer will be made for analysis of datasets.

Spr PHP1511 S01 25646 MW 10:30-11:50(04) (A. Sullivan)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Problems and issues surrounding delivery of emergency medical services in U.S. Topics: cost of illness; rationing health care; living wills; malpractice and its effects; effects of alcohol and other risk behavior. Priority to public health concentrators and PLME students pursuing MPH degree. Enrollment limited to 60.
Spr PHP1520 S01 24958 W 3:00-5:30(10) (B. Becker)

PHP 1540. Alcohol Use and Misuse.
Reviews the epidemiology of alcohol use, abuse, and dependence and examines its neurobiological and behavioral underpinnings. Covers etiology including physiological, genetic, psychological and social cultural influences, and prevention, brief intervention and treatment considerations. Course background in psychology, sociology, or public health is recommended. Recommended prerequisites: PHP 0320 and CLPS 0010. Enrollment limited to 20 juniors, seniors, and graduate students.
Fall PHP1540 S01 16921 TTh 9:00-10:20(02) (K. Carey)

PHP 1560. Statistical Programming in 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 in a "flipped" format. Students will watch a series of videos and work through some simple coding examples before coming to class.
Fall PHP1560 S01 16109 W 1:00-4:00(06) (A. Sullivan)

PHP 1610. Tobacco, Disease and the Industry: cigs, e-cigs and more.
This class will help students gain knowledge about tobacco use and cigarette smoking, nicotine addiction, novel new products, and the tobacco industry. We will cover the link between smoking, disease, and death; smoking prevalence and nicotine dependence; novel products such as e-cigarettes and Modified Risk Tobacco Products; the role of the tobacco industry; behavioral and pharmacological smoking cessation treatments; community, organizational, and media campaigns; tobacco policy; and, global tobacco control. The course is designed as a seminar course emphasizing class discussion and debate, as well as in-depth discussion of the assigned readings. Suggested prerequisites PHP 0850, PHP 2120, or PHP 2150
Spr PHP1610 S01 25837 T 1:30-4:00(11) (J. Ahluwalia)

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.
Fall PHP1680I S01 16110 W 3:00-5:30(17) (S. Skeels)

PHP 1680U. Intersectionality and Health Inequities.
This course examines health inequities in the U.S. from an intersectionality perspective. Intersectionality is both a theory and methodology focused on the power dynamics between oppression and privilege and how various axes of social categories and systems interrelate on various and simultaneous levels. This framework critically examines how systemic injustice and social inequality transpire on a multidimensional basis. This course provides a broad overview of health disparities in the U.S., specifically, examining them through intersecting structural and social factors (e.g., race and ethnicity; gender; immigration status; socioeconomic position; age; sexual orientation; and the promise and limitations of public policy).
Spr PHP1680U S01 25693 Th 10:00-12:30(09) (J. Nazareno)

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 16111 F 1:00-3:30(06) (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 16112 MW 1:30-2:50(07) (G. Wellenius)

Disasters, natural and anthropogenic, pose significant threats to human security. Effective humanitarian action is important for both short and long-term responses to complex emergencies. The array of factors contributing to the economic and human losses experienced in both natural disasters and complex humanitarian emergencies are vast and complicated, and the strategies employed to mitigate and heal the damage caused by these disturbances must be equal to the task. This course covers diverse topics including the role of NGOs, UN agencies, local governments, peacekeepers and military in humanitarian response; economic impact of humanitarian aid; the evidence base for humanitarian interventions.
Spr PHP1802S S01 25694 Th 4:00-6:30(17) (A. Levine)

PHP 1820. Designing Education for Better Prisoner and Community Health.
This course will provide the needed background and context for understanding the multiple issues and challenges facing prisoners and the national justice and health systems that impact their fate. In addition to contextual background, students in this course will attain the knowledge and skills needed to develop a final practical, real world health communication/ intervention project that addresses one or more health literacy challenges facing people who are incarcerated. Students interested in taking the course must contact the professor directly for information about obtaining an override.
Spr PHP1820 S01 25795 MW 3:00-4:20(10) (B. Brockmann)

PHP 1854. The Epidemiology and Control of Infectious Diseases.
Course objectives are to introduce students to methods and concepts in the study and control of infectious diseases. By the end of this course, students will have a solid foundation in the distribution, 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 PHP 0320 or PHP 0850, and to graduate students who have completed or are concurrently enrolled in either PHP 2120 or PHP 2150.
Spr PHP1854 S01 25695 MW 9:00-10:20(02) 'To Be Arranged'
PHP 1880. Meditation, Mindfulness and Health.
This course provides an overview on the relation of meditation and mindfulness (the ability to attend in a nonjudgmental way to one’s own physical and mental processes during ordinary, everyday tasks) with various health outcomes and disease risk factors such as depression, anxiety, diet, substance use, and cardiovascular disease. Mechanisms by which mindfulness may influence health will be addressed. The course will assess studies in the field for methodological rigor, and students will be taught strengths and weaknesses of current research. Students will be taught various mindfulness practices including direct experience with mindfulness meditation.
Fall PHP1880  S01  17012  W  3:00-5:30(17)  (E. Loucks)

PHP 1885. Measuring Mindfulness.
Recently, the cover of Time magazine declared a "mindful revolution" due to its popularity and growing body of research suggesting that mindfulness may help to treat a number of health-related problems from general stress to anxiety to addiction. However, little is known about the underlying mechanisms of how it works. This course will investigate the many ways that mindfulness is measured (e.g. self-report, behavior, EEG, fMRI etc.), and use these as a doorway for our own experiential exploration of what mindfulness is for ourselves.
Spr PHP1885  S01  26039  Th  9:00-11:30(01)  (J. Brewer)

PHP 1890. The Craving Mind.
We are creatures of habit. Driven by biological processes set up to help us survive, our minds are constantly craving experiences and substances—from smartphones to romance to alcohol—and this craving leads to habit formation. This course will explore the behavioral and mental processes that foster craving and consequent habit formation, the impact these have on individual and societal health, and how we can “hack” our own neurobiological reward circuitry using practices such as mindfulness, to foster greater health and wellbeing.
Fall PHP1890  S01  17602  Th  9:00-11:30(02)  (J. Brewer)

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 cohesively present this information in both a written report and an oral presentation.
Spr PHP1900  S01  25654  T  9:00-11:30(01)  (A. Field)

This dynamic course will provide an overarching public health capstone experience. Students will gain an in-depth knowledge by utilizing and strengthening oratory skills, written skills, and skills needed to work in teams. The instructor is formally trained in Internal Medicine, public health, health policy and clinical epidemiology, with experience which will be brought to the classroom. Topics will span public health successes, things that didn’t work, and things that need more work and effort. This seminar course will emphasize class discussion, interaction and debate regarding differing perspectives on each topic area, as well as in-depth discussion of the assigned readings.
Fall PHP1910  S01  16114  W  3:00-5:30(17)  (J. Ahluwalia)

The course provides an overview of social determinants of health. Examples of topics include health effects of educational attainment, social integration, neighborhood socioeconomic characteristics, racial discrimination, gender, income inequality, childhood socioeconomic circumstances, parental neglect, and job strain. Mixed teaching methods are used, including small group discussions, problem-based learning and guest lectures. Open to graduate students and advanced undergraduates.
Spr PHP1920  S01  25655  W  3:00-5:30(10)  (E. Loucks)

This course is aimed at enhancing the knowledge and skills central to the application of epidemiologic methods to cancer screening, prevention, and control. We will examine cancer incidence and trends in the U.S. and globally, interpret their implication for cancer etiology, and critically analyze current evidence regarding the role of various major risk factors on human cancer risks. The class will focus on the impact of major environmental, occupational, and lifestyle risk factors on cancers of high public health significance.
Fall PHP1964  S01  17491  F  1:00-3:30(06)  (T. Zheng)

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.

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.

This course surveys the entire landscape of the nutritional, biochemical, and genetic aspects of cardiometabolic health addressing issues of obesity, diabetes, metabolic syndrome, and their micro- and macro-vascular complications. Students will learn about both the descriptive and analytical epidemiology of these seemingly distinct but clearly clustered disorders including the so-called metabolic syndrome comprehensively and in-depth. International comparison of prevalent data in different social contexts will also be reviewed, so that strategies for prevention by either changing our cultures or natures can be appreciated and debated with a better understanding of the related issues confronted by public health and medical professionals.
Spr PHP2018  S01  25780  T  9:30-12:00(09)  (S. Liu)

This is a graduate level course focused on maternal and child health in the United States. While some reference will be made to the experience in other countries, the focus of the course will be on the United States. A broad range of health conditions will be covered, with an emphasis on leading causes of mortality and morbidity. In addition, we will examine the range of programs designed to prevent or address important health threats.
Fall PHP2023  S01  16724  T  2:30-4:50(03)  (P. Vivier)
Fall PHP2023  S01  16724  W  1:00-2:20(03)  (P. Vivier)

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  16154  M  1:00-3:30(06)  (I. Gareen)

PHP 2040. Survey Research Methods.
Emphasizes the theory of sampling and survey methods and their application to public health research. Topics include: survey design and planning; principles of sampling and survey terminology; questionnaire construction; protection of human subjects; data collection (including interviewing and data coding procedures); and application, presentation, and evaluation of results. Suggested prerequisites: PHP 2120, and PHP 2508 or 2510. Open to graduate students only.
Spr PHP2040  S01  24961  MW  4:00-5:30(10)  (M. Clark)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
PHP 2060. Qualitative Methods in Health Research. Introduces qualitative approaches to data collection and analysis in health research. Methods covered include: participant observation, key-informant interviews, focus groups, innovative data collection strategies, and non-obtrusive measures. Students will use applied projects to develop skills in: qualitative data collection and management, interviewing, transcript analysis using computerized software, triangulation between qualitative and quantitative data, and report preparation for qualitative studies. Enrollment limited to 20 graduate students. Spr PHP2060 S01 24962 F 9:00-11:30(03) (R. Shield)

PHP 2065. Qualitative Methods: Theoretical and Methodological Frameworks in Health Research. The intention of the course is to discuss core and innovative theoretical and methodological frameworks in how we conduct and analyze qualitative data, including related concerns of data representation, ethics and strategies for determining rigor in qualitative inquiry. Major approaches include ethnography, grounded theory/situational analysis, phenomenology, community based and community driven participatory research, and critical race and feminist frameworks. Students will expand their capacity to critically understand the various ways in which health-related phenomena can be explored, analyzed and interpreted. It is geared for students interested in gaining a broader understanding of theoretical frameworks related to qualitative research methods.

Fall PHP2065 S01 17534 Th 9:30-12:00(02) (J. Nazareno)

PHP 2071. Applied Public Health: Systems and Practice. Applied Public Health is a two-semester sequence of courses designed to give students the skills and experiences they need to master understanding public health and health care systems, policy in public health, leadership, communication, interprofessional practice, and systems thinking. This will be achieved through a combination of lectures, in class exercises, homework assignments, and practical experience in a public health setting. The first course in the sequence (PHP 2071) is taken in the Spring of your first year.

Spr PHP2071 S01 24963 T 1:00-2:20(08) (A. Gjelsvik)

PHP 2072. Applied Public Health: Policy, leadership and communication. Applied Public Health is a two-semester sequence of courses designed to give students the skills and experiences they need to master understanding public health and health care systems, policy in public health, leadership, communication, interprofessional practice, and systems thinking. This will be achieved through a combination of lectures, in class exercises, homework assignments, and practical experience in a public health setting. The second course (PHP 2072) is taken in the Fall of your second year.

Fall PHP2072 S01 16157 F 2:30-3:50(07) (A. Gjelsvik)

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 16158 W 9:30-12:00(16) (M. Lurie)

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 16160 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 25696 F 9:30-12:00(03) (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 16161 Th 10:30-11:50(13) (B. Marshall)

PHP 2160. The Global Burden of Mental Illness: A Public Health Approach. Provides an introduction to the classification, epidemiology, etiology, treatment and potential prevention of psychiatric disorders from a population perspective. Reviews the magnitude and social burden associated with mental disorders worldwide and opportunities to enhance prevention and treatment. Covers concepts and methods used to study mental illness at the population level, including definitions of “normality” and “pathology”, current classification systems and measurement approaches to assess psychopathology and severity and cross-cultural issues. Covers the prevalence, risk factors, and etiology of major disorders of children, adolescents and adults, including autism spectrum disorders, attention deficit disorders, mood and anxiety disorders, schizophrenia and substance use disorders.

Spr PHP2160 S01 25645 Th 12:00-2:30(08) (S. Buka)

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 25697 Th 2:30-5:00(11) (O. 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 25698 MW 1:30-2:50(07) (G. Wellenius)
This course introduces students to major topics that affect the health of women and their infants during pregnancy and the perinatal period. We will address issues relevant to both high and low-resource settings, but will pay particular attention to low-resource settings. The course covers pregnancy loss and pregnancy outcomes, chronic and infectious diseases during pregnancy, and key methodological issues when studying health outcomes during the perinatal period. The course will include course lectures, informal discussions with experts, and student-led discussions and journal clubs. Student will complete a course paper and brief presentation on a selected research topic. This course is open to masters and PhD students in any concentration or program who have taken an introductory epidemiology course such as PHP 2120 or PHP 2150, and, with instructor permission, to undergraduate students who have taken PHP 0850.
Spr PHP220C S01 25699 W 3:00-5:30(10) (A. Bengtson)

PHP 2220D. Reproductive Epidemiology.
This course provides an overview of topics related to reproductive epidemiology, including substantive epidemiologic information, methodologic issues pertinent to reproductive health, and maternal and child health services and programmatic topics. The first half of class sessions will be lecture-based, while the second half will involve the discussion of a published research study in a journal club format, and students are expected to actively participate in class discussions. After several introductory lectures, students will select topics and will be responsible for organizing a presentation and discussion under the instructors’ supervision.
Fall PHP2220D S01 17637 Th 2:30-5:00(03) (D. Savitz)

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 16164 TTh 1:00-2:20(08) (C. Howe)

PHP 2260. Applied Epidemiologic Data Analysis.
This course will lead students through the process of writing a journal-style manuscript based on performing applied epidemiologic data analysis using statistical software (i.e., SAS). This course is best suited for students who already have a research idea in mind and data in hand prior to the start of the course or are able to develop a research question based on de-identified publicly available population-based datasets that will be recommended in the course. Course enrollment is restricted to graduate students.
Spr PHP2260 S01 25838 Th 10:00-12:30(09) (C. Howe)

This course provides students with fundamental principles of behavioral and social research methodology for understanding the determinants of public health problems, and for executing and testing public health interventions. We will focus on experimental methods, observational studies, and qualitative approaches. We will develop skills in understanding and interpreting data—both quantitative and qualitative. Throughout the course we will emphasize ethical, cultural, and professional issues for designing public health interventions. Prior coursework in research methodology and quantitative methods is recommended but not required. Open to graduate students and advanced undergraduates. Enrollment limited to 15.
Fall PHP2300 S01 17159 Th 4:00-6:30(04) (D. Operario)

PHP 2325. Place Matters: Exploring Community-Level Contexts on Health Behaviors, Outcomes and Disparities.
As with many health-related outcomes, the prevalence of ill health is unequally distributed across populations, with certain community features playing significant roles in shaping health. In this course, we will explore the features of place and the associations with health behaviors and health outcomes. 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. The course activities will culminate with neighborhood audits, presentations, and policy briefs. Due to the course structure and activities, it is limited to 12 graduate students.
Fall PHP2325 S01 17205 T 9:00-11:30(02) (A. Dulin)

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 16980 T 12:00-2:30(08) (D. Williams)

PHP 2345. Affect, Emotion, and Health Behavior.
The purpose of this class is to learn about and discuss theory and research on affective determinants of health-related behaviors across multiple behavioral domains. The common thread through the entire course is that health-related behavior is the dependent variable affect or emotion is the putative determinant. That is, this is a course about how affect and emotion influences health-related behavior. Although we will, in some instances, discuss the effects of health-related behavior on affect and emotion, emotion and mood are NOT considered to be the outcome of interest.
Spr PHP2345 S01 25929 T 11:00-1:30(09) (D. Williams)

PHP 2355. Designing and Evaluating Public Health Interventions.
Previously listed as PHP 1740. Examines health behavior decision-making and elements for design of health promotion interventions. Covers theories of health behavior (focusing on primary and secondary prevention), principles of intervention design, and reading of research literature. Emphasizes psychological, social, and proximate environmental influences on individuals’ health-related behaviors. Restricted to undergraduates in the AB/MPH program, and graduate students. Prerequisite: PHP 0320 or equivalent. Enrollment limited to 35.
Fall PHP2355 S01 16723 MW 1:00-2:20(06) (P. Risica)
Spr PHP2355 S01 24965 MW 1:00-2:20(06) "To Be Arranged"

PHP 2360. Developing + Testing Theory-Driven, Evidence Based Psychosocial and Behavioral Health Interventions.
This is a graduate-level course designed to provide students with the knowledge and research skills necessary to develop and ultimately test a theory-driven, evidence-based psychosocial or health behavior change intervention. Drawing on research, theory, and practice, students learn how to conduct formative research to inform the content, structure, and format of an intervention, set goals/objectives, develop intervention materials/messages, and evaluate outcomes – all while taking into account factors such as gender, sexuality, race/ethnicity, poverty, culture, social-support/social-capital, etc. Research methods that are relevant for examining efficacy, including study-design, power/sample size calculations, fidelity monitoring, randomization, control conditions, measures selection/assessment, data collection, etc. are covered.
Spr PHP2360 S01 25702 W 3:30-6:00(10) (M. Mimiaga)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
PHP 2370. Etiology of Substance Use Disorders
This course will help students become familiar with behavioral, genetic, neurobiological, and cultural factors related to the onset and course of substance use disorders. In addition to review of specific theories, empirical evidence supporting models will be covered as well as the integration of evidence across models. Priority will be given to postdoctoral fellows. BSHS students should take the class for a grade (ABC/NC). Special students/postdocs should choose S/NC grade option.

Fall 2023

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PHP 2380. Health Communication
This course 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 communication 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.

Fall 2023

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Reviews the development of the health care delivery, financing and regulatory control systems in the U.S. and reviews the literature on the relationship between health system structure and the services used and health outcomes that populations experience. A case-study approach is used to understand the inter-relationship between financing, delivery and regulatory components of the health system and their implication for public health by drawing on epidemiological, economic, political and sociological principals. Prerequisites: Graduate standing or PHP 0310 or PHP 0070 (not available to first year students or sophomores). Instructor permission required.

Fall 2023

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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 2023

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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).

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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 2023

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PHP 2451. Exchange Scholar Program
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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.

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PHP 2455B. Health Services Research Methods II
This course covers commonly used statistical (regression) models for health services research, including survival analysis; examines the problem of missing data and strategies for addressing it; and provides a basic introduction to causal inference methods for time-varying exposures (including non-adherence). The goal is to familiarize students with important methods in applied work, so they can critically review the published literature and use the methods in their own research. The topics covered should be of interest to students in Health Services, Policy + Practice, Epidemiology, Economics, and beyond. Pre Requisites: Successful completion of PHP 2455A or instructor permission. Interested students who have not taken PHP 2455A should contact issa_dahabreh@brown.edu to make arrangements. Those with adequate background in basic health services research or epidemiologic methods and regression analysis will be able to gain from this course, even if they have not taken PHP 2455A.

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For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
PHP 2465A. Introduction to Health Decision Analysis.
Many decisions in health are value-laden, involve competing objectives, or must be made under uncertainty. Health decision analysis is a structured approach to thinking through such decisional problems. This course introduces decision analysis and cost-effectiveness analysis for public health and clinical problems. It covers basic theory for decisionmaking; principles and techniques for mathematical modeling; and, implementation, by analyzing archetypical decisional problems in health. Pre Requisites: Some facility with mathematical notation and basic concepts in probability (advanced undergraduate students can enroll after instructor approval). Recommended course: DATA 1010, MATH 1610, or APMA 1690.
Fall PHP2465A S01 17210 W 1:00-3:30(06) (T. Trikalinos)

PHP 2470. Topics in Clinical, Translational and Health Services Research.
Through a combination of mini-courses and seminars, students will explore concepts, gain knowledge and develop skills in a variety of public health areas. To receive a half credit for this course, students will be required to successfully complete 70 units. Units must be pre-determined by the course instructor and the unit instructor. Units are generally based on the number of in-person contact hours and the number of outside of class/homework hours required for a mini-course or seminar. Students must receive special permission from the instructor or be accepted to the Clinical and Translational Research Summer Institute to enroll.
Spr PHP2470 S01 25839 Th 3:30-5:00(17) (A. Trivedi)

PHP 2480. Selected Topics in Global Health Economics.
This course will survey selected topics in global health economics. It is designed to introduce students to specific issues, theory and practice of health economics at the global level. The first part of the course will survey research papers on econometric methods in global health including: field experiments, instrumental variables, propensity score matching and regression discontinuity. The second part will discuss current topics such as: conditional economic incentives for providers and consumers, social health insurance, public goods, and externalities. Prerequisites: PHP 2511 and ECON 1110, or equivalent. Enrollment limited to 8 graduate students. Instructor permission required.
Spr PHP2480 S01 25409 F 3:00-5:30(15) (O. Galaraga)

PHP 2507. Biostatistics and Applied Data Analysis I.
The objective of the year-long, two-course sequence is for students to develop knowledge, skills and perspectives necessary to analyze data to answer public health questions. The year-long sequence focuses 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. Using lectures, labs and small group discussions, we focus on evaluating data sources, refining research questions, univariate and bivariate analyses, and presentation of initial results. Prerequisite: understanding of basic math concepts and terms. Enrollment limited to 50 students. Instructor permission required.
Fall PHP2507 S01 16166 W 6:30-8:00PM(08) (A. Gjelsvik)
Fall PHP2507 S01 16166 Th 1:00-2:20(08) (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 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. This spring semester course focuses on regression, interpretation of results, and communication of results. Prerequisite: PHP 2507. Enrollment limited to 50. Instructor permission required.
Spr PHP2508 S01 25410 W 6:30-8:00PM(14) (A. Gjelsvik)
Spr PHP2508 S01 25410 Th 1:00-2:20(14) (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 17016 Th 9:00-10:20(02) (A. Sullivan)

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 25791 MW 10:30-11:50(04) (A. Sullivan)

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, nite and approximate sampling distributions, point and interval estimation, and hypothesis testing. Examples of their use in modeling will also be discussed.
Fall PHP2515 S01 16922 MW 9:30-10:20(01) (A. Eloyan)

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 16964 MW 9:00-10:20(01) (Z. Wu)

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 16965 MW 10:30-11:50(16) (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 16171 W 1:00-4:00(06) (A. Sullivan)
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 16173 T 1:00-3:30(08) (C. Gatsonis)

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 or PHP 2560.
Fall PHP2610 S01 16174 TTh 9:00-10:20(02) (J. Hogan)

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 25841 TTh 10:30-11:50(09) (T. Liu)

PHP 2710. Interdisciplinary Perspectives on Disability and Death in the Global South.
The course fosters interdisciplinary critical and integrative thinking and writing about the leading causes of disease, disability and death in low and middle income countries, and potential solutions to prevent and ameliorate these burdens of disease. The first part focuses on measures of population health, health disparities, multi-causal and multi-level thinking, social epidemiology, community interventions and implementation research. These topics provide the fundamental intellectual frameworks for global public health. The second part presents scholars from key discipline areas contributing to global health research and practice from many academic units at Brown University. To conclude students present their potential research ideas. Prerequisites include at least one prior public health or epidemiology course, and at least one prior international/global health course or relevant experience. Written permission of the instructor is required for students not in the Global Public Health master's program.
Fall PHP2710 S01 17319 T 1:00-3:30(08) (S. McGarvey)

PHP 2720. Implementing Public Health Programs and Interventions in the Global South.
This course will focus on the theory and methods related to increasing the impact of evidence-based public health interventions and the effectiveness of healthcare delivery in diverse resource-limited settings around the globe. This course will focus on the influence of social, structural, political, and organizational processes on the development, adaptation, implementation, and evaluation of public health interventions in the Global South. We will review the emerging field of implementation science and critically analyze approaches for the evaluation of ongoing global public health programs. This course is required for students in the Global Public Health ScM program.
Prerequisites include: 1) Previous completion with a B grade of above in PHP 2710: Interdisciplinary Perspectives on Disability and Death in the Global South AND 2) Previous completion with a B grade or above in PHP 2120: Introduction to Methods in Epidemiologic Research or PHP 2150: Foundations in Epidemiologic Research Methods, AND 3) Previous completion with a B grade or above in PHP 2730: Including the Excluded: Global Health Ethics AND Written permission of the instructor is required for students not in the Global Public Health master's program.
Spr PHP2720 S01 25790 T 10:00-12:30(09) (J. Pellowski)

PHP 2730. 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 PHP2730 S01 17015 F 9:00-11:30(01) (C. Kuo)

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 16175 W 11:00-12:00(16) (A. Dulin)
Fall PHP2950 S02 16178 M 12:00-12:50(15) (T. Liu)
Fall PHP2950 S03 16179 T 12:00-12:50(12) "To Be Arranged"
Fall PHP2950 S04 16180 M 12:00-12:50(15) (T. Wette)
Spr PHP2950 S01 25704 T 12:00-12:50(14) "To Be Arranged"
Spr PHP2950 S02 25705 M 12:00-12:50(05) (V. Mon)
Spr PHP2950 S03 25707 F 1:00-1:50(08) (A. Dulin)
Spr PHP2950 S04 25708 M 12:00-12:50(05) (T. Liu)

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 2981. Graduate Independent Study and Thesis Research (half-credit).
Half-credit independent study research course consisting of 90 credit hours of supervised independent work. Intended for master’s students. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
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.
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall PHP2990 S01 15329 Arranged (K. Kelsey)
Spr PHP2990 S01 24212 Arranged "To Be Arranged"

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

Public Policy

PLCY 0100. Introduction to Public Policy.
An overview of policymaking and policy analysis in the contemporary United States. The course begins with an examination of traditional justifications for government action. We will then examine the discipline of policy analysis that has arisen to design and evaluate public policies. We will also consider critiques of the rational method and ask questions about how policy expertise fits into the political system. The course ends with classic works on organizations and implementation. Not open to graduate students.
Fall PLCY0100 S01 16631 TTh 6:40-8:00PM(10) (R. Hackey)

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 methods 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 25680 TTh 1:00-2:20(08) "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 17070 MW 8:30-9:50(01) "To Be Arranged"

PLCY 1700K. Health Policy Challenges.
This course examines the topic of health reform through a variety of lenses – politics, policy, community organizing, and bureaucratic implementation. Specific issues include recent reform efforts at the national and state levels, including the Affordable Care Act and several Rhode Island state legislative campaigns over the past twenty years. During each of these legislative victories (or defeats), the interplay between politics and policy, community organizing and implementation have defined how successful the laws have been in improving people’s access to quality, affordable healthcare.
Spr PLCY1700K S01 25679 TTh 2:30-3:50(11) "To Be Arranged"

PLCY 1701. Discrimination and Public Policy (UNIV 1701).
Interested students must register for UNIV 1701.
Fall PLCY1701 S01 17899 Arranged "To Be Arranged"

PLCY 1702F. Political Communication.
This course will focus on the importance of written and oral communication in public decision-making, particularly in the congressional context. The course will examine the impact on political interactions, and the influencing of public policy decisions and outcomes. The course will emphasize some of the practical tools for producing relevant, useful material in the professional policy and the political communications arenas. The course requires several writing assignments focusing on different public policy analyses and political communications tools as well as active class participation including oral presentation.
Fall PLCY1702F S01 17351 M 3:00-5:30(05) (R. Arenberg)

PLCY 1703A. Youth Politics and Culture in the Americas: Explorations through Ethnography.
This course explores youth culture and politics in the Americas – foregrounding Latinidad, Black, pan-Asian and indigenous diasporas, young women and queerness-using ethnography and engaged research. By focusing on the everyday lives of young people from Detroit to Buenos Aires and the significance and conceptions of childhood and youth in different cultural contexts, students will explore race, class, gender, sexuality, political economy and inequality. Students will also have the opportunity to lead their own semester-long field research project, observing and potentially working with a local youth-related site like a community organization, to engage with the themes of the course.
Fall PLCY1703A S01 17361 W 3:00-5:30(17) (D. Valles)

PLCY 1703C. Policy Making and Policy Makers in Domestic and International Contexts.
The objective of the class is to encourage a new understanding of the players, approaches, and potential in domestic and international policy making, and to provide students with a "real-world" perspective on how things get done in a variety of public policy contexts. The course will take two broad perspectives on these issues, inviting students to investigate policy making from the "inside out" -- i.e., from the perspective of key stakeholders within the legislative and executive branches -- and from the "outside in" -- i.e., from the perspective of key stakeholders in the media, lobbying organizations, non-governmental organizations, and business interests.
Spr PLCY1703C S01 25883 Arranged "To Be Arranged"

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 17297 T 4:00-6:30(09) (M. Rosenberg)

PLCY 1802. Engaged Research Engaged Publics.
Policy problems are complex. Policy analysis and design is both a science and a craft. Increasingly, policymakers have begun to acknowledge that effective policy research requires not only multiple methods of inquiry, but also interdisciplinary teams of social science researchers, citizens, designers, scientists, artists, consultants, and engineers, among other experts. Generating innovative policy solutions, from this approach, is not a straightforward, linear process, but instead a creative, collaborative, and engaged activity that requires not only iterative and dynamic research methods, but also storytelling, design, and other creative methods.
Fall PLCY1802 S01 17298 Th 5:30-8:00PM (W. Allen)
This seminar is for students in the Brown in Washington, DC program. This seminar is designed to allow interdisciplinary examination of domestic politics and policy, and of the relationship of scholarship to public engagement and governance, by focusing on enduring questions of social justice and their expression in contemporary social policy. Issues to explore include poverty, inequality, freedom, rights, race, gender, community, class, citizenship, paternalism, and the roles of government (federal, state and local), markets, capital, labor, philanthropy, and voluntary organizations. Enrollment is limited to Undergraduate level students participating in the Brown in Washington Program.
Fall PLCY1822 S01 17081 Arranged "To Be Arranged"
Spr PLCY1822 S01 25684 Arranged "To Be Arranged"

The objective of the class is to encourage a new understanding of the complexities of national security. The traditional paradigm of players, approaches, influences, and desired outcomes, no longer accommodates the corpus of transnational and cross-border issues that cut across every policy decision in today’s world. Gender, climate, health, technology, food security, and other “non-traditional” security issues must shape the way we look at security, stability and just governance both as a sovereign nation and as a global actor. This course is part of the Brown in DC program.
Fall PLCY1825 S01 17892 Arranged (P. Reeves)

PLCY 1910. Social Entrepreneurship.
Social Entrepreneurship, engages students in the process of exploring significant global problems and developing innovative solutions that drive transformative social change. The course helps students understand the strategies that social entrepreneurs employ to tackle complex and entrenched social problems with transformative approaches that work and impact systems. Students will learn about real organizations and interact with entrepreneurs leading this work. Case studies, complemented by articles and guest speakers, will show different approaches to social entrepreneurship and illustrate the strengths and weaknesses of various models and strategies. Enrollment in the class is determined by application: http://goo.gl/forms/tjUK5twXc4
Fall PLCY1910 S01 17071 TTh 10:30-11:50(13) (W. Allen)

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 17299 M 3:00-5:30(05) (A. Levitas)

PLCY 2450. Exchange Scholar Program.
Fall PLCY2450 S01 15333 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

COST 0032. Music and Meditation.
Music and Meditation explores the contemplative nature of sonic experience from humanistic, artistic and scientific perspectives. By drawing from various traditions across both time and space, and by engaging with a variety of disciplinary methodologies from Contemplative Studies, Ethnomusicology, Religious Studies and Cognitive Science, we will seek to better understand how diverse religious communities have used music as a meditative tool, a mystical philosophy, a communal exercise, a ritual performance, and more. We will examine the philosophies of thinkers, scientists and musicians to investigate music making as both an instrument, and a goal, of contemplative practice.
Spr COST0032 S01 24975 TTh 9:00-10:20(01) (S. Reddy)

COST 0036. Love and War in India.
Love and War in India explores two fundamental cultural tropes that have significantly shaped the religious, literary, social and political life of South Asia. Building on the ancient Tamil conceptions of aham (love/interiority) and puram (war/exteriority), and the Sanskrit ideas of kama (desire), dharma (duty) and ahimsa (non-violence) we will investigate a variety of texts on religious devotion, ethical behavior and political theory in order to contextualize the concepts of love and war within multiple arenas of Indian social and cultural life.
Fall COST0036 S01 16489 TTh 9:00-10:20(02) (S. Reddy)

COST 0037. Sensing the Sacred: Sensory Culture in South Asian Religions.
This course explores South Asian religions through the body, the senses, and aesthetics. Drawing on Hindu, Buddhist, and Jain traditions, and concentrating on embodied practices such meditation, chanting, eating, sex, asceticism, ritual, possession, and performance, we will examine experiences of the sacred in India, past and present. How has sensory culture shaped lives, practices, and doctrines? What place do the senses have in South Asian traditions? Drawing on premodern law codes, erotic handbooks, and medical treatises; and integrating new media from ethnographic films to graphic novels, we will plunge into the rich sense-worlds of religions in South Asia.
Spr COST0037 S01 26049 TTh 1:00-2:20(08) (F. Moore-Gerety)

COST 0100. Introduction to Contemplative Studies.
Introduction to the new field of Contemplative Studies focusing on identifying methods human beings have found, across cultures and across time, to concentrate, broaden and deepen conscious awareness. We will study what these methods and experiences entail, how to critically appraise them, how to experience them ourselves, and how they influence the development of empathy, health, and well-being. Prerequisites: None. Enrollment limited to Semester 01-04 students, others by permission of instructor. Enrollment limit is 40.
Spr COST0100 S01 25208 W 3:00-5:30(10) (H. Roth)

Why study food? What can food tell us about religion, politics, and culture? Food in South Asia often shapes identity, social status, ritual purity, religious belonging, and political activism—the notion that you are what you eat has wide currency. Whatever form it takes, food embodies histories of migration, trade, empire, colonialism, and ethics. Through reading primary texts and ethnographic articles, watching films, and (of course) eating delicious food, we will explore the rich foodways of South Asia and their social, religious, and political ramifications.
Fall COST0140 S01 16497 T 4:00-6:30(09) (F. Moore-Gerety)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
COST 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 a 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.

Spr COST0525 S01 25378 T 4:00-6:30(16)  (F. Moore-Gerety)

COST 0526. This Whole World is OM: Mantras in Indian Religions. Mantras are syllables or formulae used in ritual and meditation. Mantras are central to Indian religions—not only Hinduism, but also Jainism, Buddhism, Sufism, and Sikhism. Some mantras are made up of words and language—usually in Sanskrit—while others are sound fragments with no semantic meaning. The sacred syllable OM, now a global symbol of Eastern spirituality, exemplifies the power and authority of mantra. What are mantras? What do they accomplish? How do they shape identities, beliefs, and practices? Engaging with sacred utterance in various media, this course explores the world of mantras in India and beyond.

Fall COST0526 S01 17524 TTh 1:00-2:20(08)  (F. Moore-Gerety)

COST 1082. Me, Myself, and I: Exploring Senses of Self from a Multidisciplinary Perspective. Human beings have long puzzled over how precisely to conceptualize and understand what and how it is that we are. Questions about the nature of the self have informed the speculations of philosophy, the soteriologies of religion, the trajectories of self-cultivation in contemplative traditions, and the therapeutics of psychology. Recently, cognitive science and phenomenology have developed new explanations for how multiple senses of self shape lived experience and give rise to various self-concepts. Students in this course will engage with dimensions of selfhood that we often take for granted by studying senses of self from multidisciplinary and cross-cultural perspectives.

Fall COST1082 S01 17595 M 3:00-5:30(05)  (J. Lindahl)

COST 1420. The Contemplative Foundations of Classical Daoism. Introduction to classical Daoism, one of the two indigenous religions of China, through the history, philosophy, and contemplative practices found in its foundational works the Daodejing and the Zhuangzi. Through careful study of these texts, we will attempt to reconstruct the intellectual and experiential elements on which this tradition was based.

Fall COST1420 S01 16776 F 3:00-5:30(11)  (L. Difton)

COST 1700A. The History, Philosophy, and Practice of Rinzai Zen: Zen Master Hakun Ekaku. Explores Japanese Rinzai Zen Buddhist tradition by focusing on its seminal figure, Hakun Ekaku (1686-1769). Examines his biography, core practices, and key philosophy by looking at selections from his essential autobiographical and philosophical writings as well as his artwork. Focuses on the following aspects of Hakun's importance in the history of Japanese Buddhism: Hakun as reviver of Rinzai Zen, especially kōan practice; Hakun as a meditation master; Hakun as a poet; Hakun as an artist; Hakun as a social critic. Readings will be primary sources in translation.

Spr COST1700AS01 26299 F 3:00-5:30(15)  "To Be Arranged"

COST 1705A. Principles and Practices of Contemplative Studies. Advanced study of the distinctive methods of the field of Contemplative Studies that includes third-person, second-person, and critical first-person perspectives. Will focus on the study of meditative practices in their cultural contexts and on essential scientific research on their nature and effects. Prerequisite: COST 0100 or Permission of Instructor. Meditation Lab to be scheduled.

Spr COST1705AS01 26051 Arranged  (H. Roth)

COST 1910. Individual Study Project – Semester 1. 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 1980. 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 0014. Jesus. Who was, and is, Jesus? Who decides? What can we know about the historical Jesus and who he became? In this course, we will begin with the earliest accounts of Jesus as recounted in the canonical gospels and outside it (e.g., the Gospel of Judas). Then we will turn to the many ways that later generations of Christians (both heretical and orthodox) and non-Christians depicted Jesus, especially in art, literature, theology, politics, and entertainment. We will read canonical and non-canonical Christian texts, Jewish accounts of Jesus, the Quran, modern Christian apologetic literature, and analyze films like the Life of Brian.

Fall RELS0014 S01 17324 MWF 10:00-10:50(14)  (J. Han)

RELS 0032. Music and Meditation. Music and Meditation explores the contemplative nature of sonic experience from humanistic, artistic and scientific perspectives. By drawing from various traditions across both time and space, and by engaging with a variety of disciplinary methodologies from Contemplative Studies, Ethnomusicology, Religious Studies and Cognitive Science, we will seek to better understand how diverse religious communities have used music as a meditative tool, a mystical philosophy, a communal exercise, a ritual performance, and more. We will examine the philosophies of thinkers, scientists and musicians to investigate music making as both an instrument, and a goal, of contemplative practice.

Spr RELS0032 S01 24976 TTh 9:00-10:20(01)  (S. Reddy)

RELS 0036. Love and War in India. Love and War in India explores two fundamental cultural tropes that have significantly shaped the religious, literary, social and political life of South Asia. Building on the ancient Tamil conceptions of aham (love/interiority) and puram (war/externality), and the Sanskrit ideas of kama (desire), dharma (duty) and ahimsa (non-violence) we will investigate a variety of texts on religious devotion, ethical behavior and political theory in order to contextualize the concepts of love and war within multiple arenas of Indian social and cultural life.

Fall RELS0036 S01 16492 TTh 9:00-10:20(02)  (S. Reddy)

RELS 0037. Sensing the Sacred: Sensory Culture in South Asian Religions. This course explores South Asian religions through the body, the senses, and aesthetics. Drawing on Hindu, Buddhist, and Jain traditions, and concentrating on embodied practices such meditation, chanting, eating, sex, asceticism, ritual, possession, and performance, we will examine experiences of the sacred in India, past and present. How has sensory culture shaped lives, practices, and doctrines? What place do the senses have in South Asian traditions? Drawing on premodern law codes, erotic handbooks, and medical treatises; and integrating new media from ethnographic films to graphic novels, we will plunge into to the rich sense-worlds of religions in South Asia.

Spr RELS0037 S01 26050 TTh 1:00-2:20(08)  (F. Moore-Gerety)
When someone calls themselves "spiritual," what does that mean? This course answers that question by exploring the wide range of ideas, practices, and desires that have come to make up the concept of spirituality. Inviting students to consider why spirituality seems "not religious," this course examines such phenomena as yoga, faith healing, hip hop, shopping, self-help books, psychology, surveys, and protest movements. Through such phenomena, this course will enable students to recognize how Americans have made sense of their own lives and institutional attachments through continually changing technologies of race, pluralism, science, capitalism, and secularism.

Spr RELS0056 S01 24977 MWF 11:00-11:50(04) (D. Vaca)

RELS 0060C. The Bible and Moral Debate (JUDS 0060).
Interested students must register for JUDS 0060.

Spr RELS0060C S01 25879 Arranged "To Be Arranged"

RELS 0060D. Antisemitism: A History (JUDS 0063).
Interested students must register for JUDS 0063.

Spr RELS0060D S01 25882 Arranged "To Be Arranged"

RELS 0090K. Christmas in America.
This course explores how Christmas became a religious, consumer, and social extravaganza. 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.

Fall RELS0090K S01 16494 Th 4:00-6:30(04) (D. Vaca)

RELS 0090M. Islam, Violence and Media.
One of the most controversial issues in contemporary political discourse is the question of Islamist violence and its relationship to Islamic religion and practice. In this course, we will explore the phenomenon and media representation of radicalization, and their relationship to a number of institutions and issues, including but not limited to: religious texts, global politics, colonialism, war, and nationalism. The goals of this course are to familiarize students with the historical and discursive issues pertaining to radicalism and religious violence in Islamic and non-Islamic contexts, and to posit questions about what constitutes "radicalism" in a given tradition or cultural context.

Fall RELS0090M S01 16495 TTh 1:00-2:20(08) (N. Khalek)

RELS 0095A. Islam from the Ground Up.
Current events and popular culture alike direct our attention to the centrality of discourse on the Islamic world. In this course, we examine the historical origins and development of Islamic religion and practice in light of the sources and communities that shaped them in a variety of contexts. The goals of this course are to learn the fundamentals of: how people have studied the Qur'an, the concept and development of "Shariah," sectarianism, approaches to gender and sexuality, and Muslim theology, philosophy, and Qur'anic interpretation in pre-modern and contemporary Muslim life.

Spr RELS0095A S01 24978 MWF 10:00-10:50(03) (N. Khalek)

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.

Fall RELS0110 S01 16496 MWF 12:00-12:50(15) (S. Harvey)

RELS 0140. Food, Religion and Politics in South Asia
Why study food? What can food tell us about religion, politics, and culture? Food in South Asia often shapes identity, social status, ritual purity, religious belonging, and political activism—the notion that you are what you eat has wide currency. Whatever form it takes, food embodies histories of migration, trade, empire, colonialism, and ethics. Through reading primary texts and ethnographic articles, watching films, and (of course) eating delicious food, we will explore the rich foodways of South Asia and their social, religious, and political ramifications.

Fall RELS0140 S01 16498 T 4:00-6:30(09) (F. Moore-Gerety)

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 16533 TTh 1:00-2:20(08) (S. Bush)

A study of the dynamic relation between religion and nature. Religion, in this course, includes forms of spirituality within and outside the bounds of conventional religious traditions (for example, Buddhism and Christianity, on the one hand; ecofeminism and nature writing on the other). Topics in this study of religion, philosophy, and ecology will include environmental justice, environmental degradation, and depictions of humans in relation to the natural world. Enrollment limited to 20.

Spr RELS0260 S01 24979 TTh 1:00-2:20(08) (M. Cladis)

RELS 0420. Sacred Bodies.
How did ancient Christians understand physical holiness? What did the bodies of saints demonstrate or reveal? How was bodily sanctity represented in actual practices, and in literary, artistic, or ritual expressions? We will consider three broad categories of saints: desert heroes, holy women, and virtuosos (pillar saints, holy fools).

Spr RELS0420 S01 24980 M 3:00-5:30(13) (S. Harvey)

RELS 0505. Big Screen Buddha.
"Big Screen Buddha" examines representations of Buddhism(s) in diverse Asian cinemas. Classic, contemporary, documentary, and experimental films include Thai ghost stories, a Tibetan comedy, and portrayals of Japanese priests as sound artists. We will survey major traditions of Buddhism, and closely examine local lived traditions. Students will confront problematic representations of race and ethnicity as well as misogyny. The existence of death, sex, and drugs will arise in discussion. Additional topics include sound and Buddhists experimenting with making the medium sacred. Background in the study of Buddhism or film not required, though preferred. Lecture with screening plus discussion each week.

Fall RELS0505 S01 17327 MWF 2:00-2:50(07) (J. Protass)

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 a 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.

Spr RELS0525 S01 24981 T 4:00-6:30(16) (F. Moore-Gerety)
RELS 0525. This Whole World is OM: Mantras in Indian Religions. This course surveys sacred vocal utterances known as mantras in Indian religions, with an emphasis on Hinduism, Buddhism, Jainism, and Sikhism. Students will explore the cultural, historical, and spiritual contexts in which these sounds and words have been used, and consider the potential for their transformative power in religious practice. Fall RELS0525 S01 17545 TTh 1:00-2:20(08) (F. Moore-Gerety)

RELS 0625. Articulating Islam in Southeast Asia. What do we mean when we talk about 'Islamic' Southeast Asia? This course treats Islam as part of the intensively multi-religious and multicultural societies of Southeast Asia. Our investigation of local Islamic sites will reveal histories and genealogies of religious practice that have connected Southeast Asia to other parts of the world. It will uncover the open-endedness of Islam, and how it acquires its characteristics in relation to local landscapes and cultures, as well as other religions. Tracing multiple Islamic contexts through issues of socio-historical formation and continual change, this course explores complexities pertaining to religion, indigeneity and migration. Fall RELS0625 S01 16870 TTh 9:00-10:20(02) (S. Bashir)

RELS 0700D. How the Bible became Holy (JUDS 0682). Interested students must register for JUDS 0682. Fall RELS0700D S01 17067 'To Be Arranged'

RELS 0700E. The Language of Religious Faith (JUDS 0820). Interested students must register for RELS 0700E. Fall RELS0700E S01 17940 'To Be Arranged'

RELS 0700F. War and Peace in the Hebrew Bible and Its Environment (JUDS 0670). Interested students must register for JUDS 0670. Fall RELS0700F S01 17277 'To Be Arranged'

RELS 0700G. Gender in Early Jewish and Christian Texts (JUDS 0606). Interested students must register for JUDS 0606. Spr RELS0700GS01 25880 'To Be Arranged'

RELS 0820. African American Religious Strategies: Martin and Malcolm. MLK, Jr. and Malcolm X are two iconic figures in the pantheon of black religious leadership. Their profoundly influential ideas about justice, freedom, democracy and racism, along with their activist strategies and personal biographies have generated extraordinary interest over the past 50 years. Despite this, the rich and complex tradition out of which their ideas and world-views evolve; the 300 year old religious strategies and practices employed by African-Americans have been understudied, disconnected from our understanding of their significance. This course will examine these traditions and these two central figures’ roles within them in order to shed important light on both. Spr RELS0820 S01 24982 MWF 1:00-1:50(06) (A. Willis)

RELS 0822. Social Justice and the Musical Afrofuture. Afrofuturism is an Afrocentric aesthetic and politics drawing from African cultures and science fiction. This course surveys black American Afrofuturist music as works of social justice activism through imagination and representation of alternative cosmologies, epistemologies, and politics of black life. Students will examine the works of artists such as Sun Ra, George Clinton, Erykah Badu, Missy Elliott, and Janelle Monáe. Students will also study Afrofuturist music and sound in films such as Coming to America (1988), Get Out (2017), and blockbuster Black Panther (2018), and its soundtrack. Classes include discussion of audio/video recordings, other primary source material, and secondary texts. Fall RELS0822 S01 17326 W 3:00-5:30(17) (C. Barron)

RELS 0835. Black and Brown Religion in America. This course explores Black and Brown religious experience in American life, mainly from the perspectives of Christianity and Islam. We will explore topics such as secularism, White supremacy, Orientalism, imperialism, immigration, the history of segregation, and democratic political thought. The course goals are to: understand the histories of Islam and African American religion vis a vis race, religion, and theory in historical, cultural, and political context. We will also explore connections between solidarity movements and politics such as Black Lives Matter and the Palestinian/Israeli conflict. Fall RELS0835 S01 16773 TTh 10:30-11:50(13) (N. Khalek)

RELS 0841. Far-Right Religious Terrorism. Since 9/11, far-right violent extremists in the U.S. have committed almost twice as many terrorist attacks as Islamist terrorists, and are responsible for nearly half of all terrorism fatalities. While not all of these attacks are religiously motivated, in many instances they are explicitly Christian in their orientation. This course examines domestic and international far-right religious terrorism – as well as the U.S. government’s response to this violence – by looking at attacks that are anti-abortion, white supremacist, anti-government, and anti-immigrant. Fall RELS0841 S01 17918 T 4:00-6:30(09) (M. McBride)


RELS 1050A. Problems in Israelite Religion and Ancient Judaism (JUDS 1625). Interested students must register for JUDS 1625. Fall RELS1050A S01 17064 'To Be Arranged'

RELS 1050E. Jewish and Christian Identity in the Ancient Period (JUDS 1601). Interested students must register for JUDS 1601. Fall RELS1050E S01 17068 'To Be Arranged'

RELS 1050F. Digging for the Bible: Science, Religion, and Politics (JUDS 1974). Interested students must register for JUDS 1974. Fall RELS1050F S01 17272 'To Be Arranged'

RELS 1050G. On the Margins of the Bible: Jewish and Christian Non-Canonical Texts (JUDS 1603). Interested students must register for JUDS 1603. Spr RELS1050G S01 25881 'To Be Arranged'

RELS 1105. Kabbalah: An Introduction to Jewish Mysticism. In the 12th and 13th centuries, new ways of approaching Judaism sprung up in France and Spain that would come to be known as “kabbalah.” These new approaches expressed aspirations for mystical illumination and elaborated vast mythological narratives about divine and demonic beings. The kabbalists radically departed from the then-conventional understandings of Judaism, particularly those of philosophers like Maimonides. However, they also claimed to find their new worldviews in the tradition’s most ancient texts. This course will introduce students to kabbalah’s founding period, focusing on primary texts (in translation), especially the Zohar, the magnum opus of classical kabbalah. Fall RELS1105 S01 17420 T 4:00-6:30(09) (N. Berman)

RELS 1315. Religious Authority in an Age of Empire. How does one live in a hostile Empire? How do you carve out a niche? Where do you allow the Empire in and where do you draw a hard line? Such were the questions that both Jewish and Christian communities faced at various times in the Roman Empire. In this course, we will look at the variety of ways that both communities negotiated with and against Empire. We will read texts across religious lines, including gospels, gnostic texts, Rabbinic literature, apocalypses, and Church orders. To sharpen our thinking, we will also read literature associated with post-colonial critical thought and readings. Fall RELS1315 S01 17325 M 3:00-5:30(05) (J. Han)
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 16538 MWF 1:00-1:50(06)  (L. Willis)

RELS 1325A. Educating Bodies in Ancient Christianity. Education in the ancient Mediterranean world served multiple purposes. It formed citizens, moral and ethical agency, and religious identities. It took place in a variety of settings and through diverse disciplinary methods, physical, intellectual, and social. This course will examine the primary modes of instruction through which ancient Christians undertook self-formation: the family, the civic community, monasteries, and liturgical communities. Seminar. Prior coursework in early Christianity (RELS 0400 or 0410) or Classics recommended. Spr RELS1325AS01 25196 F 3:00-5:30(15)  (J. Han)

RELS 1325C. The Virgin Mary in Christian Tradition. Who was the Virgin Mary? How did she become important, when and to whom? What was inherited? What was new? How were Mary’s meanings demonstrated? A study in the developing theological and devotional traditions regarding Mary the Mother of Jesus, focused on the first thousand years of Christian history. Major theological positions; relationship to pre-existing religious practices and goddess traditions; the role of popular violence; Marian piety; Marian relics; Mary as cultural metaphor. Seminar format. Spr RELS1325CS01 25235 TTh 2:30-3:50(11)  (S. Harvey)

RELS 1380A. Money, Media, and Religion. This course explores the relationship between religious life, forms of capitalism, and media technologies in the history of the United States. From constructing buildings and printing texts to disseminating teachings and communicating with members: essential aspects of religious life require both money and media. Yet forms of money and media continually have changed, and those changes have taken shape in dialogue with religious beliefs, practices, and sensibilities. This seminar examines this dialogue by visiting such varied sites as Puritan marketplaces, Santa Claus displays, Bible factories, television talk shows, and Occupy protests. Spr RELS1380AS01 25198 W 3:00-5:30(10)  (D. Vaca)

RELS 1380C. Law and Religion. In our arguably "post-secular" age, conflicts over the relationship between religion and law have again moved to the forefront of international debate. In a multicultural and globalized world, such conflicts often provoke contestation over the very possibility of universal definitions of either "religion" or "law," let alone their proper relationship. Our interdisciplinary inquiries on these questions will include concrete legal disputes in domestic and international courts; theoretical debates over the construction of "religion" in fields such as anthropology, religious studies, and philosophy; and historiographical controversies about the relationship between "secularization" and sovereignty, particularly in light of the legacy of colonialism. Fall RELS1380CS01 17322 TTh 2:30-3:50(03)  (N. Berman)

RELS 1385. Religion and Postmodernity. This advanced seminar treats the central ideas in the thought of Zizek, Sloterdijk, Bauman, and others. It will pay particular attention to the idea of God in the works of Derrida, Foucault, and Deleuze as it filters through these contemporary, popular efforts. Students will trace some of the normative aspects of a postmodern ethics and theology by looking at "Emergent" churches, "New Thought", and post-foundational Christian theology in practice. Fall RELS1385 S01 16539 M 3:00-5:30(05)  (A. Willis)

RELS 1420. The Contemplative Foundations of Classical Daoism. Introduction to classical Daoism, one of the two indigenous religions of China, through the history, philosophy, and contemplative practices found in its foundational works the Dao-de Jing and the Zhuangzi. Through careful study of these texts, we will attempt to reconstruct the intellectual and experiential elements on which this tradition was based. Fall RELS1420 S01 16775 F 3:00-5:30(11)  (L. Dillion)

RELS 1430. Buddhist Classics. An opportunity to read and understand the canonical texts of East Asian Buddhism. Through close reading, written analysis, and discussion, participants will become conversant with the major Mahayana Buddhist teachings in their original scriptural or literary articulations. Selected later interpretations may also be considered. All readings are in English translation. Previous study of Buddhism is recommended, but not required. Enrollment limited to 20 students. Spr RELS1430 S01 25199 W 3:00-5:30(10)  (J. Sawada)

RELS 1500. From Moses to Muhammad: Prophets of the Ancient World. The figure of “the Prophet” forms the backbone to many of history’s major religions. From well-known prophets like Moses and Muhammad to more obscure figures like Mani, ancient prophets claimed to have unique access to God(s). Yet the concept of prophethood, and its twin, “prophecy,” was as diverse as those who claimed its mantle. This seminar will explore ancient discourses of prophethood and prophecy from the Ancient Near East up to the early medieval era. Our reading selection will include the Hebrew Bible, apocalypses, Greek theories of divination, the Manichaean corpus, the Qur’an, and other “non-canonical” texts. Spr RELS1500 S01 25200 MWF 9:00-5:50(02)  (J. Han)

RELS 1530F. The History of Emotions and Medieval Islamic Tradition. In this advanced course (open to graduate students) we will explore the history of emotions in contemporary historical theory and scholarship in conjunction with medieval Islamic tradition literature and medieval biographical and hagiographical texts. The goals of the course are to understand how emotions have been studied by historians and scholars of religion and to apply a history of emotions approach to our readings of medieval Islamic texts. Prior courses in Islamic studies required, knowledge of Arabic or other primary-text language strongly preferred. Spr RELS1530FS01 25201 T 10:30-1:00(09)  (N. Khalek)

RELS 1610. Sacred Sites: Law, Politics, Religion. Sacred sites have long been flashpoints for inter-communal conflict the world over, as well as posing challenges to sovereign State authority. Such sites range from natural landscapes to architectural masterpieces. They often come to symbolize the perennial clash between the religious and the secular, the sacred and the political, tradition and modernity. We will discuss a diverse array of specific disputes and ask whether one may even speak of “sacred sites” cross-culturally. Can legal frameworks embrace different notions of the sacred? We will also examine the historical contexts that provoke such disputes, particularly the aftermath of colonialism. Spr RELS1610 S01 25202 T 4:00-5:30(16)  (N. Berman)

RELS 1700A. The History, Philosophy, and Practice of Rinzai Zen: Zen Master Hakuin Ekaku. Explores Japanese Rinzai Zen Buddhism tradition by focusing on its seminal figure, Hakuin Ekaku (1686–1768). Examines his biography, core practices, and key philosophy by looking at selections from his essential autobiographical and philosophical writings as well as his artworks. Focuses on the following aspects of Hakuin’s importance in the history of Japanese Buddhism: Hakuin as reviver of Rinzai Zen, especially kōan practice; Hakuin as a meditation master; Hakuin as a talented artist; Hakuin as social critic. Readings will be primary sources in translation. Spr RELS1700AS01 26301 M 3:00-5:30(15)  (To Be Arranged)
RELS 1705A. Principles and Practices of Contemplative Studies. Advanced study of the distinctive methods of the field of Contemplative Studies that includes third-person, second-person, and critical first-person perspectives. Will focus on the study of meditative practices in their cultural contexts and on essential scientific research on their nature and effects. Prerequisite: COST 0100 or Permission of Instructor. Meditation Lab to be scheduled. 
Spr RELS1705AS S01 26053 Arranged (H. Roth)

RELS 1990. Individual Study Project. Directed reading and research arranged with individual faculty. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

RELS 1999. Thesis Preparation. Required of seniors in the honors program. Open to others only by permission of the chair of the department. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

RELS 2000. Theory of Religion. Critical examination of major approaches to the study of religion, especially those of the anthropology and the history of religions, with attention to issues in current debate.
Fall RELS2000 S01 16541 W 9:30-11:50(16) (T. Lewis)

RELS 2100E. Literature of the Early Second Temple Period. A close reading of selections from surviving literary texts of the late sixth century (e.g., Isaiah 56-66, Zechariah 1-8, Haggai) and of the fifth century (Ezra-Nehemiah, Malachi). Prerequisite: An advanced knowledge of biblical Hebrew and permission of the instructor. 
Spr RELS2100ES S01 25954 Arranged (S. Olyan)

Fall RELS2350DS S01 16962 W 3:00-5:30(17) (J. Sawada)

RELS 2380B. Reading Genres of Chinese Buddhist Verse. This seminar provides skills for interpreting major genres and modes of Buddhist verse in China through close readings of primary sources, translation exercises, and discussion. Topics include: Buddhist epic and scriptural gatha in translation; rōn-in epitaph inscriptions; popular vernacular songs, such as by Han Shan; stylized eremitism, or mountain-dwelling poems; liturgical hymns; encomia inscribed on paintings; Chan commentarial verse on "public cases" (gong'an, J. koan); social and occasional poetry; poems about the Pure Land; poetical tradition among late imperial monks; and contemporary Taiwanese poetry. Requirements: background in academic study of Buddhism and facility with Chinese or Japanese language.
Fall RELS2380BS S01 17480 Th 4:00-6:30(04) (J. Protass)

RELS 2450. Exchange Scholar Program.
Fall RELS2450 S01 15338 Arranged 'To Be Arranged'

RELS 2600L. Seminar: Afro-Theism. This graduate seminar places a theological lens on Black life in North America. Its premise is that Afro-Theism, not the institutional "Black Church" or Black prophetic religion, have been seminal to the self-conception of Black people and their way of constituting racial "others." Different theistic emphasis at different historical moments demonstrates both the importance and fluidity of Afro-Theism and sheds unique light on quest for equity and self-actualization. Starting with the conventional Christian theologies into which New World Africans under slave conditions were indoctrinated, this course will explore the role and impact of Afro-Theism.
Spr RELS2600LS S01 25205 T 6:30-9:00PM (A. Willis)

RELS 2600R. Religion, Aesthetics, and Politics. This course examines aesthetic values and experiences and their relationship with religion, ethics, and politics. We will examine theological discussions of beauty. We will look at the potential ethical and political implications of the beautiful and the sublime, and ask questions about how aesthetic regard shapes religious, ethical, and political agency.
Spr RELS2600RS S01 26080 Th 10:30-1:00(09) (S. Bush)

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 15339 Arranged 'To Be Arranged'
Spr RELS2890 S01 24220 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 residency requirement and are continuing research on a full time basis.
Fall RELS2990 S01 15340 Arranged 'To Be Arranged'
Spr RELS2990 S01 24221 Arranged 'To Be Arranged'

Center for the Study of the Early Modern World

Spr EMOW0062 S01 26119 Arranged 'To Be Arranged'

Fall EMOW0063 S01 17693 Arranged 'To Be Arranged'

EMOW 0150H. Foods and Drugs in History (HIST 0150H). Interested students must register for HIST 0150H.
Fall EMOW0150S S01 17747 Arranged 'To Be Arranged'

EMOW 0522G. An Empire and Republic: The Dutch Golden Age (HIST 0522G). Interested students must register for HIST 0522G.
Fall EMOW0522S S01 17748 Arranged 'To Be Arranged'

EMOW 0660. Giotto to Watteau: Introduction to the Art of Europe from Renaissance to French Revolution (HIAA 0660). Interested students must register for HIAA 0660.
Fall EMOW0660 S01 17683 Arranged 'To Be Arranged'

EMOW 0710I. New Worlds: Reading Spaces and Places in Colonial Latin America (COLT 0710I). Interested students must register for COLT 0710I.
Fall EMOW0710S S01 17688 Arranged 'To Be Arranged'

Fall EMOW0910 S01 16920 Arranged 'To Be Arranged'

EMOW 1040. Virgil: Aeneid (LATN 1040B). Interested students must register for LATN 1040B.
Spr EMOW1040 S01 26178 Arranged 'To Be Arranged'

EMOW 1040C. Le Grand Siècle à l'écran (FREN 1040C). Interested students must register for FREN 1040C.
Spr EMOW1040S S01 26131 Arranged 'To Be Arranged'

EMOW 1160. Classics of Indian Literature (CLAS 1160). Interested students must register for CLAS 1160.
Spr EMOW1160 S01 25886 Arranged 'To Be Arranged'

EMOW 1216. The Paradox of Early Modern Europe (HIST 1216). Interested students must register for HIST 1216.
Spr EMOW1216 S01 25951 Arranged 'To Be Arranged'

EMOW 1240A. Fashion and Fiction in the Early Modern Hispanic World (HISP 1240A). Interested students must register for HISP 1240A.
Fall EMOW1240S S01 17746 Arranged 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Interested students must register for HMAN 2400R.

EMOW 2400X. Premodern Art-Science, or the Work of Knowing in Europe before 1800 (HMAN 2400X).
Interested students must register for HMAN 2400X.
Spr EMOW2400.S01 26132 Arranged 'To Be Arranged'

EMOW 2520L. Sor Juana Inés de la Cruz in Her Literary Context (HISP 2520L).
Interested students must register for HISP 2520L.
Fall EMOW2520.S01 17690 Arranged 'To Be Arranged'

South Asian Studies

Why study food? What can food tell us about religion, politics, and culture? Food in South Asia often shapes identity, social status, ritual purity, religious belonging, and political activism—the notion that you are what you eat has wide currency. Whatever form it takes, food embodies histories of migration, trade, empire, colonialism, and ethics. Through reading primary texts and ethnographic articles, watching films, and (of course) eating delicious food, we will explore the rich foodways of South Asia and their social, religious, and political ramifications.
Fall SAST0410.S01 17921 T 4:00-6:30(09) (F. Moore-Gerety)

SAST 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 and 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.
Spr SAST0525.S01 25770 T 4:00-6:30(16) (F. Moore-Gerety)

SAST 0526. This Whole World is OM: Mantras in Indian Religions.
A mantra is a syllable or formula used in ritual and meditation. Mantras are central to Indian religions—not only Hinduism, but also Jainism, Buddhism, Sufism, and Sikhism. Some mantras are made up of words and language—usually in Sanskrit—while others are sound fragments with no semantic meaning. The sacred syllable OM, now a global symbol of Eastern spirituality, exemplifies the power and authority of mantra. What are mantras? What do they accomplish? How do they shape identities, beliefs, and practices? Engaging with sacred utterance in various media, this course explores the world of mantras in India and beyond.
Fall SAST0526.S01 17922 Th 1:00-2:20(08) (F. Moore-Gerety)

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

SAST XLIST. Courses of Interest to Concentrators.

Science, Technology and Society

STS 0050K. Pride and Prejudice in the Development of Scientific Theories (BIOL 0190P).
Interested students must register for BIOL 0190P.
Fall STS0050K.S01 17679 Arranged 'To Be Arranged'

STS 0050L. Botanical Roots of Modern Medicine (BIOL 0190E).
Interested students must register for BIOL 0190E.
Fall STS0050L.S01 17670 Arranged 'To Be Arranged'

STS 0120. Culture and Health (ANTH 0300).
Interested students must register for ANTH 0300.
Fall STS0120.S01 17511 Arranged 'To Be Arranged'

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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.
Fall  STS0700B  S01  16259  Th  4:00-6:30(04)  (J. Poland)

STS 0770A. Chemistry and Art (CHEM 0999).
Interested students must register for CHEM 0999.
Fall  STS0770A  S01  17514  Arranged  "To Be Arranged"

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 enroll with permission of instructor.

Interested students must register for CSCI 1805.
Fall  STS1220A  S01  17515  Arranged  "To Be Arranged"

STS 1620B. Cybersecurity Ethics (CSCI 1870).
Interested students must register for CSCI 1870.
Fall  STS1220B  S01  17573  Arranged  "To Be Arranged"

STS 1390L. Science at the Crossroads (HIST 1825M).
Interested students must register for HIST 1825M.
Fall  STS1390L  S01  17575  Arranged  "To Be Arranged"

Interested students must register for HIST 1825F.
Fall  STS1390K  S01  17574  Arranged  "To Be Arranged"

STS 1622. Philosophy of Science (PHIL 1590).
Interested students must register for PHIL 1590.
Fall  STS1622  S01  17581  Arranged  "To Be Arranged"

STS 1694A. Artists and Scientists as Partners (TAPS 1281W).
Interested students must register for TAPS 1281W.
Fall  STS1694A  S01  17582  Arranged  "To Be Arranged"

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.
Spr  STS1700P  S01  24724  T  4:00-6:30(16)  (J. Poland)

STS 1701A. Health Inequality in Historical Perspective (AFRI 1920).
Interested student must register for AFRI 1920.
Fall  STS1701A  S01  17512  Arranged  "To Be Arranged"

STS 1702A. Social Impact of Emerging Technologies: The Role of Engineers (ENGN 1931J).
Interested students must register for ENGN 1931J.
Fall  STS1702A  S01  17777  Arranged  "To Be Arranged"

STS 1721. Anthropology of Addictions and Recovery (ANTH 1300).
Interested students must register for ANTH 1300.
Fall  STS1721  S01  17578  Arranged  "To Be Arranged"

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 in STS. To solve assigned problems students will want to explore critical scholarship in areas such as laboratory studies, feminist science and technology studies, the rhetoric and discourse of science and technology, expertise and the public understanding of science. Course is intended for Science and Society senior concentrators, but is open to others with appropriate background. Enrollment limited to 20.
Fall  STS1900  S01  16258  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.

STS 2700A. The Politics of Knowledge (HIST 2981F).
Interested students must register for HIST 2981F.
Fall  STS2700A  S01  17576  Arranged  "To Be Arranged"

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.
Spr  CZCH0100  S01  26009  Arranged  (M. Fidler)

CZCH 0320A. Czech Animation: Cross-cultural Dialogs.
Czech animation has a long tradition and international reputation. Jiří Trnka beat Walt Disney at the post-war Cannes Film Festival. Karel 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.
Spr  CZCH0320A-S01  24285  W  3:00-5:30(10)  (M. Fidler)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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. Prerequisite: RUSS 0300 or placement by exam. Enrollment limited to 18.

Fall RUSS0100 S01 25180 MWF 10:00-10:50(09) (L. deBenedette)
Fall RUSS0100 S01 25180 MWF 12:00-12:50(09) (L. deBenedette)
Fall RUSS0100 S02 25180 MWF 11:00-11:50(09) (L. deBenedette)
Fall RUSS0100 S02 25180 MWF 12:00-12:50(09) (L. deBenedette)
Fall RUSS0100 S03 17018 MWF 12:00-12:50(09) (L. deBenedette)
Fall RUSS0100 S03 17018 TTh 12:00-12:50(09) (L. deBenedette)

RUSS 0110. Intensive Russian.
Intensively-paced introduction to Russian culture and language; completes one year of study in one semester (RUSS 0110 = RUSS 0100-0200). Comprehension and use of contemporary Russian; fundamentals of Russian grammar; vocabulary acquisition; focus on oral communication. Introduces aspects of everyday culture of Russia and the former U.S.S.R. Ten to fifteen hours weekly work outside the classroom. Enrollment limited to 18.

Spr RUSS0110 S01 25184 T 9:00-10:20(03) (L. deBenedette)
Spr RUSS0110 S01 25184 MWF 12:00-12:50(03) (L. deBenedette)
Spr RUSS0110 S01 25184 MWF 10:00-10:50(03) (L. deBenedette)

RUSS 0200. Introductory Russian.
Introduction to Russian language and culture. Oral and written communication in Russian; emphasis on the culture of Russia and the former U.S.S.R., including the changes that have reshaped everyday life for citizens of Russia. Five meetings per week, plus use of audio, video, and Web materials. Prerequisite: RUSS 0100 or RUSS 0250. Enrollment limited to 18.

Spr RUSS0200 S01 25185 MWF 11:00-11:50(16) (L.deBenedette)
Spr RUSS0200 S01 25185 TTh 12:00-12:50(16) (L.deBenedette)
Spr RUSS0200 S02 25186 MWF 12:00-12:50(16) (L.deBenedette)
Spr RUSS0200 S02 25186 TTh 12:00-12:50(16) (L.deBenedette)

RUSS 0300. Intermediate Russian.
Continues development of language proficiency while broadening understanding of contemporary Russian culture via readings in literature and history. Emphasis on dialogue and oral communication, with discussion of issues related to current Russian life. 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 16664 MWF 10:00-10:50(18) (L. deBenedette)
Fall RUSS0300 S01 16664 TTh 12:00-12:50(18) (L.deBenedette)
Fall RUSS0300 S02 17019 MWF 11:00-11:50(18) (L.deBenedette)
Fall RUSS0300 S02 17019 TTh 12:00-12:50(18) (L.deBenedette)

RUSS 0320A. Dostoevsky's "The Brothers Karamazov" - The Art of the Novel.
An in depth analysis of Dostoevsky's last novel as the culmination of his art and thought. Central religious and philosophical themes of the novel, such as the relations of faith to morality, modes of transgression, retribution, and epiphany, the question of theodicy, and the nature of authority. Discussion of Dostoevsky's poetics and of his contribution to the genre of the novel. Readings from literary criticism and from other pertinent literary texts, such as the Bible, Schiller, and Voltaire will also be discussed. In English. Enrollment limited to 19 first-year students.

Spr RUSS0320AS01 24289 M 3:00-5:30(13) (S. Evdokimova)

RUSS 0320E. Crime and Punishment through Literature.
The seminar will explore how texts of different epochs and cultures, ranging from Ancient to Modern and from drama to poem, novel, and film treat the issues of transgression, punishment, justice, and forgiveness. We will examine each text both in terms of its artistic merit and its place within its cultural and historical milieu. Enrollment limited to 19 first-year students.

Fall RUSS0320ES01 15583 W 3:00-5:30(17) (V. Golstein)

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 25189 MWF 10:00-10:50(12) (L.deBenedette)
Spr RUSS0400 S01 25189 TTh 12:00-12:50(12) (L.deBenedette)
Spr RUSS0400 S02 25647 MWF 11:00-11:50(12) (L.deBenedette)
Spr RUSS0400 S02 25647 TTh 12:00-12:50(12) (L.deBenedette)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 16665 MWF 1:00-1:50(06) (L. deBenedette)

RUSS 0600. Advanced Russian.
Examines selected topics in Russian culture and history as depicted in readings, the media, and Russian and Soviet films. Language work emphasizes increasing facility with spoken Russian and developing writing skills. Includes work on advanced grammar and syntax. Four class meetings per week. Prerequisites: RUSS 0500 or placement. Enrollment limited to 18. Spr RUSS0600 S01 25191 MWF 1:00-1:50(06) (L. deBenedette)

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 16666 MWF 12:00-12:50(15) (L. deBenedette)

RUSS 1120. Special Topics in Russian Studies II: Advanced Reading and Conversation.
A continuation of Russian 1110. Examines aspects of Russian culture as manifested in Russian literature. Readings range from fairy tales to contemporary works. Extensive classroom discussion and frequent writing assignments. Prerequisite: RUSS 1110, 1700, or written permission. May be repeated once with permission of the instructor. Enrollment limited to 18. Spr RUSS1120 S01 25192 MWF 12:00-12:50(05) (L. deBenedette)

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, Lerмонтov, Gogol, Turgenev, Leskov, and Dostoevsky. Lectures and discussion. No knowledge of Russian required. Discussion sections to be arranged. Fall RUSS1290 S01 16926 MW 3:00-4:20(17) (D. Dukhanova)

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, Solzhenitzyn, and Dostoevsky. Lectures and discussion. No knowledge of Russian required. Spr RUSS1300 S01 24282 TTh 10:30-11:50(09) (V. Golstein)

RUSS 1330. Soviet Culture: Propaganda, Dissidence, Underground. After the October Revolution of 1917, Soviet society became gradually split into official culture, dissidence, and the underground. Authors who did not conform to the limitations imposed by Soviet institutions often circulated their works illegally or published them abroad. Some of them were forced to emigrate. This course explores the complex intersections of propaganda, dissidence, and underground in Soviet literature, art, and film. Spr RUSS1330 S01 24291 TTh 1:00-2:20(08) (F. Fenghi)

RUSS 1340. The Russian Novel.
When one considers the impact of Russian literature on world literature, one thinks first of all of the novel. And indeed, since the late nineteenth century its readers all over the world could not resist its artistic powers. The course explores selected Russian novels form the nineteenth- to the twenty-first century. Our in-depth (slow) reading and discussions will be guided by the questions concerning the stylistic peculiarities of the novel, and its development in changing historical and cultural contexts. The course includes: Gogol’s Dead Souls, Goncharov’s Oblomov, Dostoevsky’s Idiot, Bely’s Petersburg, Nabokov’s Mary, Platonov’s Chevengur, among others. Fall RUSS1340 S01 15582 TTh 1:00-2:20(08) (M. Oklot)

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, retracing a history of 20th-century Russian culture through its urban imagination. Spr RUSS1440 S01 24292 TTh 2:30-3:50(11) (F. Fenghi)

RUSS 1550. Beyond the Kremlin: Russian Culture and Politics in the Twenty-First Century.
This course explores the radical transformations of Russian cultural and political life after the end of the Soviet Union, with a specific focus on the Putin era. By combining the approaches of literary analysis and cultural anthropology, the course studies representations of social change, and attempts at producing social change, in Russian everyday life and language, as well as in contemporary art and literature. All readings and discussions in English, with Russian originals available for interested students. Fall RUSS1550 S01 15585 MWF 1:00-1:50(06) (F. Fenghi)

RUSS 1660. Sexuality and Revolution in 20th-Century Russian Culture.
The course explores the role of the body and sexuality in 20th-century Russian literature, art, film, and everyday life, covering the sexual revolution of the 1920s, the mass spectacles of the Stalinist period, and the prominent role of sexuality and the body in post-Soviet literature, film, and mass culture. We will focus in particular on the question of how artistic representations of, and reflections on, the body and sexuality, affected social and political revolutions throughout contemporary Russian history. Fall RUSS1660 S01 16751 MWF 2:00-2:50(07) (F. Fenghi)

RUSS 1860. Chekhov.
Commemorating the hundredth anniversary of the death of the great Russian playwright and short-story writer, this course will examine Chekhov’s innovations in the genre of the short story and in modern theater, as well as his ongoing influences in world literature. Themes include the nature of the Chekhovian comic, subversion of the dominant literary and cultural paradigms and myths, representations of gender and sexuality. In English. One of the tasks is to improve students’ writing skills. Fall RUSS1860 S01 15586 TTh 2:30-3:50(03) (S. Evdokimova)

RUSS 1885. Literature and Art of the Russian Avant-Garde.
Examines the Russian avant-garde between 1912, the year of the first Russian futurist manifesto, and early 1930s when Social Realism became this only sanctioned style of art. This, arguably the most vibrant period in Russian art, permeated with unprecedented sense of creative and political urgency, coincided with the WWI and the Russian Revolution, which provided historical contexts for the analyzed works. Also stresses aesthetic and historic interconnections between the Russian and western avant-gardes. Includes the works of poetry, prose, literary manifestos, book design, painting, and film by such artists as Pasternak, Mayakovsky, Khlebnikov, Mandelshtam, Meyerhold, Malevich, Rodchenko, Eisenstein, among others. Fall RUSS1885 S01 16811 Th 4:50-6:30(04) (M. Oklot)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Independent research project on topics related to Russian culture. Enrollment permitted only after the written proposal (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 2610C. Russian Romanticism. 
This course will examine the works of Zhukovsky, Batulshkov, Pushkin, Lermontov, Turgenev, Bestuzhev-Martsinsky, 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.
Fall RUSS2610C S01 16463 M 3:00-5:30(05) (S. Evodikimova)

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.
Fall RUSS2970 S01 15341 Arranged 'To Be Arranged'
Spr RUSS2970 S01 24222 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.

RUSS 2990. Thesis Preparation. 
For graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall RUSS2990 S01 15342 Arranged 'To Be Arranged'
Spr RUSS2990 S01 24223 Arranged 'To Be Arranged'

Slavic

SLAV 1300. Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe).
This seminar course examines the relationship between language and society: e.g. gender and language, politeness, terms of address, conversational analysis, dialects and language, language variation and social class, language policies and their consequences, language and national/ethnic identity. Case-study readings cover (but are not limited to) linguistic situations in East Europe, Russia, and the former republics of the USSR. Knowledge of Slavic languages not required. Open to advanced undergraduate and graduate students. Freshmen and sophomores who demonstrate their knowledge of the basic notions in linguistics or their familiarity with the former USSR and East Europe may enroll with the instructor’s written permission. Enrollment limited to 20.
Spr SLAV1300 S01 24284 F 3:00-5:30(15) (M. Fidler)

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.

SLAV 1970G. Polish for Reading and Research. 
An intensive course designed for students who wish to receive concise and systematic language instruction to read Polish for their research projects and/or to prepare for advanced language study in the study abroad context. The course does not require any previous knowledge of Polish. Students will develop functional reading and comprehension strategy in Polish through extensive activities focusing on grammar and reading of selected texts.
Fall SLAV1970G S01 15464 Arranged (M. Oklot)

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 2450. Exchange Scholar Program. 
Fall SLAV2450 S01 15344 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.
Fall SLAV2970 S01 15345 Arranged 'To Be Arranged'
Spr SLAV2970 S01 24225 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 residency requirement and are continuing research on a full time basis.
Spr SLAV2990 S01 24226 Arranged 'To Be Arranged'

SLAV XLIST. Courses of Interest to Concentrators in Slavic Languages.

Sociology

SOC 0010. Social Forces: An Introduction to Sociology. 
Social forces constrain and empower us, bond us together and push us apart. Sociology explores the workings of societies large and small: nations, organizations, communities, families, and other groups. How do societies shape action and identity, and why and how do social pressures so hard to defy? How do societies distribute wealth and power, and why do inequalities so often coalesce around race, ethnicity, class, and gender? How do established practices persist, and when do movements arise to challenge them? Examining such themes across a range of issues and topics, this course provides a springboard for future study throughout the social sciences.
Fall SOC0010 S01 16871 TTh 2:30-3:50(03) (A. Schrank)
Spr SOC0010 S01 25560 TTh 2:30-3:50(11) (M. Kennedy)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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.
Spr SOC0020  S01  25572  MWF  10:00-10:50(03)  (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  25575  TTh  9:00-10:20(01)  (P. Henry)

SOC 0250. An Environmental Sociology for a Rapidly Warming World.
Environmental problems are rooted in societies’ complex and changing relationship with the natural world. Understanding those environmental problems, lets alone solving them, requires careful investigation of nature-society interactions. Through lectures, readings, discussion, and written work, students will examine the social and historical foundations of contemporary environmental problems and societal efforts to address or resolve those problems. Building on these foundations, we will explore the social dimensions of three (interrelated) “environmental grand challenges”: curbing climate change, preparing for and responding to environmental disasters, and building sustainable cities. Through all of these challenges, questions of environmental inequality and environmental racism loom large.
Fall SOC0250  S01  17274  TTh  2:30-3:50(03)  (S. Frickle)

SOC 0300. Organizations and Society.
We live in a society of organizations. We are born inside organizations, we are educated inside organizations, we work inside organizations, and when we die, we will be buried by organizations. Organizations are therefore central to processes that shape individual lives and societal trends, from widening income inequality, to the spread of innovations, to struggles over public policy. This course introduces the field of Organizational Studies, examining organizations as complex, multifaceted social settings. By investigating how organizations and society shape each other, students will build skills for informed, socially-responsible engagement in an increasingly organizational society.
Spr SOC0300  S01  25935  TTh  1:00-2:20(08)  (R. Wetts)

SOC 0300D. Who Am I?.
A study of self in contemporary society. We examine the structural and situational forces that shape the self and their impact on personal development, orientations to the world, and interpersonal behavior; we investigate the development of the self as a way of being in the world that makes everyday doings and, ultimately society, possible. Enrollment limited to 18 first year students. Instructor permission required.
Fall SOC0300D  S01  16873  TTh  1:00-2:20(08)  (G. Elliott)

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 40 students per section.
Fall SOC0310  S01  16872  W  3:00-5:30(17)  (A. Hance)
Spr SOC0310  S01  25561  W  3:00-5:30(10)  (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.
Fall SOC1010  S01  16875  MWF  1:00-1:50(06)  (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. Additionally, it aims at developing your personal leadership skills by using feedback from peers. Enrollment limited to 100.
Fall SOC1020  S01  25570  MWF  3:00-4:20(10)  (J. Owens)

SOC 1040. World Population Problems.
This is an introductory course to the study of human population. The objective is to investigate some of the social issues, including low fertility, immigration, aging, HIV/AIDS epidemic, in the United States and around the world from a demographic perspective. The course focuses on changes in the processes of mortality, fertility, and migration and how changes in processes shape the compositions and structures of the U.S. and world populations. We pay special attention to the population divide between more and less developed countries.
Fall SOC1040  S01  17273  MWF  2:00-2:50(07)  (Z. Qian)

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  16892  TTh  10:30-11:50(13)  (Ozkazanc-Pan)

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  16876  TTh  9:00-10:20(02)  (E. Rauscher)
Spr SOC1100  S01  25562  TTh  10:30-11:50(09)  (D. Lindstrom)
This course provides a comprehensive introduction to America’s criminal court system and all its institutional stakeholders. We will examine America’s criminal court system from myriad of different perspectives: courts as organizations, courts as social arrangements of professionals, courts as providers of social services and courts as consumer institutions—providing the experience of justice to victims, witnesses, defendants and jurors. We will focus on state courts as well as the federal system.
Fall SOC1116 S01 17825 TTh 9:00-10:20(02) (N. Van Cleve)

SOC 1117. Focus Groups for Market and Social Research.
This course introduces students to a range of qualitative research methods commonly used in market and social science research. It is designed to provide students with a skill set that will allow them to conduct and design market and social research that gets below the surface of the traditional survey. Focus groups, ethnographic observation and user-centered research are widely used in product design, communications, marketing and entrepreneurship research. Students will learn and practice all of the methods introduced in the course by conducting a semester-long research project, will gain insight into which methods are most appropriate for particular research needs.
Fall SOC1117 S01 16883 TTh 6:40-8:00PM(10) (L. DiCarlo)

SOC 1120. Market and Social Surveys.
This course covers the theory and practice of survey research. Topics include questionnaire design and formatting; sample design and selection; interviewing techniques; data base design and data entry; and elementary data analysis and report production. Students individually design and conduct a survey on a topic of their choice, and collectively conduct and analyze a sample survey of the Brown student population.
Spr SOC1120 S02 25629 MWF 10:00-10:50(03) (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 16884 MWF 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 16884 MWF 12:00-12:50(15) (J. Itzigsohn)

SOC 1281. Migration in the Americas.
Examines historical trends and determinants of migration from Latin America to the United States. Each stage of the migration process is examined: the decision to migrate, getting across international borders, settlement and integration in destinations, and return to places of origin. The course integrates theories and empirical studies of international migration with hands-on analysis of survey data from the Mexican and Latin American Migration Projects, the two largest survey databases for studying migration in the Americas. Students will learn how to formulate and operationalize research hypotheses, read, process, and analyze survey data files, and present and interpret research results.
Fall SOC1281 S01 17003 MWF 10:00-10:50(14) (D. Lindstrom)

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 16885 TTh 1:00-2:20(08) (M. Suchman)

SOC 1330. Remaking the City.
Cities are being reshaped by immigration, economic restructuring, and other forces. This course reviews these changes from several perspectives, including the patterns and causes of change, the role of politics and public policy, and how different groups of people (by class, race, and national origin) manage under the new conditions. Readings will emphasize historical and cross-national comparisons.
Spr SOC1330 S01 25576 MWF 1:00-1:50(06) (J. Logan)

An introduction to the fundamental principles and methods of geographic information systems (GIS). Topics include (a) handling different types of geographic datasets, (b) geo-analytical and modeling tools in GIS, (c) conceptual and theoretical aspects of GIS application development, and (d) errors and uncertainty analysis of GIS applications. Laboratory assignments and the project work provide hands on experiences in GIS. Enrollment limited to 21 juniors and seniors.
Fall SOC1340 S01 16896 MWF 1:00-1:50(06) (K. Mwenda)

SOC 1440. Intimate Violence.
Examines sociological perspectives of violence in intimate relationships. Begins with theories of violence, including social learning theory, the frustration-aggression hypothesis, and violence as catharsis. Examines the contributions of gender, race status, media violence, and pornography to the issue. Investigates specific forms of intimate violence: sexual aggression (including "acquaintance rape"), partner abuse, elderly abuse, and child abuse. Not open to first year students.
Fall SOC1440 S01 16893 MWF 12:00-12:50(15) (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.
Fall SOC1620 S01 16895 TTh 10:30-11:50(13) (P. Heller)

SOC 1870K. Demographics and Development.
Assesses the social and economic determinants and consequences of changes in fertility, mortality, and migration and their impact on the size, distribution, and composition of population in developing societies. Implications of the evolving population structure for planning and policy. Enrollment limited to 20.
Fall SOC1870K S01 17644 M 3:00-5:30(05) (D. Lindstrom)

SOC 1871B. Sociological Perspectives on Poverty.
Examines the personal experiences of socioeconomic status, with focus on the lower tiers of the hierarchy. We distinguish three levels of poverty: the working poor, marginal workers, and the underclass. Analysis will make use of issues of gender and family, race and ethnicity, and urban and rural settings. We investigate sociological perspectives on the problem of homelessness. Enrollment limited to 20.
Spr SOC1871B S01 25579 Th 4:00-6:30(17) (G. Elliott)
SOC 1871J. Ethics, Justice, and Transformations in Engaged Scholarship.

We seek to refine our understandings of the variations in engaged scholarship's ethics, conceptions of justice, and practices of transformation. In this seminar we shall work with a variety of experienced scholars and practitioners to identify best practices, recognize recurring and distinctive challenges, and to identify the conditions of consequential transformations that emerge from such engaged scholarship.

Fall SOC1871J S01 17803 Th 4:00-5:30(04) (M. Kennedy)

SOC 1871O. Law, Innovation and Entrepreneurship.

This seminar explores the relationship between legal institutions and macro-organizational change. The course devotes particular attention to the legal and organizational processes that shape (and are shaped by) the emergence of new technologies, new enterprises, and new industries. Although discussions may touch on technical aspects of law and/or entrepreneurship, most topics and materials focus on the general sociological processes that underlie changing organizational environments. The seminar is aimed at advanced students who have some prior familiarity with the sociology of law is helpful, but not essential. Through shared and individual readings, weekly discussions, and e-mail dialogues, the course provides an opportunity for students to refine and extend their thinking on important and controversial topics at the intersection of the contemporary organizational and socio-legal literatures. Prerequisite: SOC 1030 or SOC 1315 required (waivable by permission of instructor). Enrollment limited to 20 juniors, seniors, and graduate students.

Spr SOC1871O S01 25581 M 3:00-5:30(13) (M. Suchman)

SOC 1871Y. Time and Social Inequality.

This course explores the subject of time from a sociological perspective. The international adoption of a standardized time alludes to a universality in the experience of time. Yet, time is neither experienced nor distributed equally. In this course, we will explore temporal inequalities in contemporary U.S. society by considering how time is patterned, managed, and experienced across social boundaries.

Spr SOC1871Y S01 26209 F 3:00-5:30(15) (J. Bouek)

SOC 1871Z. Martial Arts, Culture, and Society.

In this upper level undergraduate course for which there are no prerequisites, we will consider how sociology, and other social sciences, can help us understand martial arts and how martial arts might inform the social sciences. We shall consider how various bodymindful martial practices, their organizations, and their cultures shape, and are shaped by, different structures of power at various levels of society. We concentrate on martial arts because they straddle such an important axial dimension of society around violence. First priority to Sociology Concentrators. Enrollment limited to 20.

Spr SOC1871Z S01 25582 M 3:00-5:30(13) (M. Kennedy)

SOC 1872E. Global Sociology: Capitalism, Colonialism and the Making of the Modern World.

This course focuses on Providence and Rhode Island to look at the embeddedness of local lives in global social processes. Sociology often takes the nation as a bounded unit of analysis. Yet, the history of the modern world is one of empires, colonialism and transnational connections. These global racial and colonial histories are frequently ignored or silenced. This course seeks to question our sense of place in the world: If we acknowledge that the world has always been global, how does that change our understanding of contemporary issues? How should we rethink sociology to break with its colonial origins?

Spr SOC1872E S01 25580 Th 4:00-6:30(17) (J. Itzigsohn)

SOC 1950. Senior Seminar.

Advanced seminar for sociology and social analysis and research (SAR) concentrators. Participants examine methods for analyzing, writing, and presenting capstone and thesis material and apply peer review techniques in assessing each other's work. Culminates in presentation of capstone or thesis to the department. Required for all sociology and social analysis and research (SAR) concentrators.

Fall SOC1950 S01 16898 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.


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.


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 16902 W 1:00-4:00(06) (M. Jackson)

SOC 2020. Multivariate Statistical Methods II.

This course is a graduate-level introduction to multivariate regression models for categorical and limited dependent variables. Subject matter includes modeling nominal and ordinal outcomes; truncated distributions; and selection processes. The course also reviews strategies for sample design; handling missing data and weighting in multivariate models. The course employs contemporary statistical software. Special emphasis is placed on model selection and interpretation. Prerequisite: SOC 2010

Spr SOC2020 S01 25583 T 1:00-4:00(08) (D. Lindstrom)

SOC 2030. Social Stratification, Inequality and Mobility.

This course provides an introduction to contemporary literature on social stratification, social mobility, inequality in the United States, abroad, based on research articles and books. We focus on theories, data, methods, facts about categorical dimensions of inequality (race, ethnicity, gender, sexual orientation); core dimensions of stratification systems (income, earnings and wealth distributions; poverty; education; the intergenerational transmission of socioeconomic status; social mobility); social institutions that govern social stratification (families, schools, labor markets, and the justice system); key inequalities that stem from stratification systems (e.g., health). This is a reading course, not a research seminar. Prerequisites include Sociology 2010 or equivalent.

Spr SOC2030 S01 25588 M 9:00-12:00(02) (M. Jackson)


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 16903 F 1:00-4:00(06) (J. Itzigsohn)

SOC 2050. Contemporary Sociology.

This class offers a review of some of the most interesting contemporary social theorists and the most intense debates in current sociological thought. It thematically reviews the works of Jurgen Habermas on the public sphere, Michel Foucault on disciplinary and governmental modes of power, Bruno Latour on modernity and modern science, Pierre Bourdieu on field and habitus and among others. No prerequisites.

Spr SOC2050 S01 25584 W 1:00-4:00(08) (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 16909 F 9:00-12:00(01) (S. Short)

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 25585 Th 1:00-4:00(08) (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, migration; construction of life tables, population projections, population dynamics; responsible use of demographic methodology. Mandatory S/NC.

Spr SOC2230 S01 25595 F 9:00-12:00(02) (Z. Qian)

This course is designed to introduce graduate students in sociology and related fields to the study and practice of ethnographic methods. We will discuss various qualitative methodological approaches, but we will concentrate on observational and interview-based research. In addition to considering some of the epistemological issues these methods raise at the theoretical level, students will also have the opportunity to learn by doing. The overall goal of this course is to cultivate and enhance students' skills in ethnographic data analysis and interpretation, and to employ these skills in the writing of a scholarly paper or book chapter.

Fall SOC2250 S01 17469 Th 9:00-12:00(02) (L. Lopez Sanders)

SOC 2260B. Sociology of Discrimination.
In recent decades, open expressions of prejudice and discrimination have become less socially acceptable. Inequalities along lines of race, class, and gender, however, persist. We will examine the social scientific literature on discrimination in its interpersonal and structural forms. We will also discuss what is not discrimination given that this term is often used (incorrectly) synonymously with disparities to refer to inequalities that originate through other processes. We will investigate causes, definitions, measurement, effects, and possible policy responses to discrimination. This course will draw on both qualitative and quantitative approaches to the study of discrimination.

Fall SOC2260B S01 17305 M 1:00-4:00(06) (J. Owens)

SOC 2260D. Race, Ethnicity, and Nation: Boundaries, Identities, Inequalities.
This seminar aims to provide students a solid base in the analysis of racial and ethnic boundaries, identities, and inequalities. The seminar addresses a number of central topics in the field and acquaints the students with some key works. The course is divided in three parts. The first part focuses on how race constituted the modern world and on contemporary forms of racialization. The second part focuses on the construction of nations and challenges to their ethnic and racial boundaries. The third part of the course looks at contemporary boundaries of race and ethnicity in the United States. Open to upper level undergraduates with permission of instructor.

Spr SOC2260D S01 25596 M 1:00-4:00(08) (L. Lopez Sanders)

SOC 2260T. Cultural Theory and Methods.
This graduate course introduces students to the sociology of culture (understanding social influence on cultural formations) and cultural sociology (understanding cultural influences on social processes). We will discuss the best methodological approaches in cultural theory and consider how one formulates a research questions and puts empirical evidence together in order to investigate specific instances of the culture-society interaction. We distill the distinctions between culture, institutions and organizations, some of the fundamental building blocks of society. While there are many approaches to considering cultural theory, this seminar will incorporate recent research to consider how culture reproduces inequality.

Spr SOC2260T S01 26236 W 9:00-12:00 (N. Van Cleve)

SOC 2320. Migration.
Examination of migration in its several manifestations: internal, international, and patterns of settlement and segregation. Consideration is given to both determinants of population movement and the socioeconomic adjustment of migrants in their destination. Includes comparative study across migrant groups and geographic settings.

Fall SOC2320 S01 16912 W 1:00-4:00(06) (M. White)

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 16905 T 9:00-12:00(01) (M. Suchman)

SOC 2450. Exchange Scholar Program.
Fall SOC2450 S01 15347 'To Be Arranged'
Spr SOC2450 S01 24227 '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

Spr SOC2460 S01 26089 T 1:00-4:00 (E. Rauscher)

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 17562 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 26029 Arranged (P. Heller)

SOC 2600. Comparative Historical Analysis.
The seminar focuses on the application of theory and method in historical sociology. It will combine the reading of exemplary works, both classical and current, in comparative-historical sociology, with an exploration of historical methods that involves methodological readings but focuses on students' use of archives in their own individual research. For graduate students only.

Spr SOC2600 S01 25586 F 1:00-4:00(06) (A. Schrank)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
SOC 2610. Spatial Thinking in Social Science.
This course reviews ways in which social scientists have incorporated concepts about space, place, and distance into their theories and research. Examples are drawn from many substantive areas, including the spatial organization of communities, spatial inequalities, and mobility. Separate laboratory meetings introduce methods of spatial analysis encountered in the course readings, including an introduction to GIS and related mapping tools.
Fall SOC2610 S01 16907 M 9:00-12:00(01) (J. Logan)

This course is intended for graduate students seeking to learn the basics of Geographic Information Systems (GIS) and how to incorporate spatial questions into social science research. The course is primarily a methods course and through required independent project work, students will learn how GIS and spatial analysis are typically employed across the social sciences. By the end students will be proficient in independent use of ArcGIS, most frequently used GIS software package, and will be able to apply the more common tools of spatial analysis. They will also know basics of cartography.
Spr SOC2612 S01 25587 Th 1:00-4:00(08) (K. Mwenda)

SOC 2960C. Urban Sociology.
This course will review alternative theoretical perspectives on urban and regional development with an emphasis on variants of ecological and political economy approaches. Substantive topics will include metropolitan restructuring in the U.S. and abroad, growth politics and growth control, neighborhood social networks and collective action, and incorporation of immigrants and minority groups in the metropolis.
Spr SOC2960C S01 25594 W 9:00-12:00(02) (J. Logan)

SOC 2960K. Comparative Political Sociology
This course explores both classic and contemporary debates in political sociology. The central thematic is the relationship between democracy and power and includes theories of the state, markets, social class and civil society. The debates are explored through historical and comparative lenses, covering both old and new democracies. Some background in political or sociological theory is recommended.
Fall SOC2960K S01 16911 T 1:00-4:00(08) (J. Pacewicz)

SOC 2960S. Statistical Methods for Hierarchical and Panel Data.
A survey course providing an applied introduction to statistical methods for analyzing clustered and panel data. Topics include multilevel analysis, fixed effects models, and growth models. Our focus will be applied, with an introduction to underlying theory and emphasis on application and interpretation. Overall goals include highlighting the framework and assumptions for each approach; studying applications; understanding disciplinary and theoretical preferences for particular approaches; providing experience with software; and studying issues that arise in empirical research.
Fall SOC2960S S01 17295 T 9:00-12:00(02) (M. Jackson)

SOC 2960V. Sociology of Law.
This seminar explores central themes in contemporary social-scientific scholarship on law, law-oriented behavior, and legal institutions. The perspective is fundamentally sociological, with attention to such core sociological concerns as: social norms; law, power and culture; and law and social change. In addition, the course examines selected themes from the interdisciplinary "Law and Society" movement, for example: the psychology of justice; the anthropology of disputing; the economics of rulemaking; and the institutional politics of courts and legislatures. Other topics may include: law and inequality; law and social movements; law and globalization; the legal profession; legal consciousness; and the "Rule of Law."
Spr SOC2960V S01 26203 T 9:00-12:00 (M. Suchman)

SOC 2961S. Contradictions, Solidarities and Reflexivities.
What is solidarity and what enables its expression in the making of social change and cohesion? How does the analysis of contradictions help us understand the conditions of social reproduction and transformation? And how does their articulation extend sociology's contribution to more knowledgeable transformations, and to the reflexivity with which we engage transformational praxis in scholarship and life? This graduate seminar asks students to participate each week, to produce three brief papers on contradiction, solidarity, and reflexivity, across the term, and to write a substantial paper at term’s conclusion addressing them all with empirical materials.
Fall SOC2961S S01 17647 W 9:00-12:00(01) (M. Kennedy)

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 15348 Arranged 'To Be Arranged'
Spr SOC2970 S01 24228 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 17563 Arranged (C. Spearin)
Spr SOC2982 S01 26030 Arranged (C. Spearin)

For Sociology PhD graduate students who have met the residency requirement and are continuing research on a full time basis.
Fall SOC2990 S01 15349 Arranged 'To Be Arranged'
Spr SOC2990 S01 24229 Arranged 'To Be Arranged'

SOC XLIST. Courses of Interest to Students Concentrating in Sociology.

Theatre Arts and Performance Studies

TAPS 0303. 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/TAPS0030). Enrollment limited to 18 first year students. Instructor permission required. No permission will be given during pre-registration.
Fall TAPS0030 S01 15889 TTh 9:30-11:50(05) (C. Crawford)
Fall TAPS0030 S02 15890 TTh 3:00-5:20(05) (S. d'Angelo)
Spr TAPS0030 S01 25252 TTh 9:30-11:50(01) (C. Crawford)
Spr TAPS0030 S02 25253 TTh 3:00-5:20(17) (S. d'Angelo)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 1500). Enrollment is limited to 14 undergraduates per section. A limited number of spaces are reserved for incoming and transfer students. Instructor permission required. S/N.C.

Fall TAPS0100 S01 16225 F 1:00-3:50(06) (K. Stare)
Fall TAPS0100 S02 16243 TTh 1:00-2:20(08) (E. Terry-Morgan)
Spr TAPS0100 S01 25265 Arranged(08) (D. Smith)

TAPS 0200. Playwriting II - Role Play
In this intermediate course, we will focus on bolstering our writerly voices while defining ongoing artistic practices. In this hybrid workshop and seminar, we will work toward writing one-act plays of our own, while investigating other writer’s worlds. In the plays we will encounter this semester, characters engage in some form of role play. We end up asking: what does it mean to play? How does a play play? Through this study, we will ask what it means for characters to be active, how to write plot as an offering of contrasts and tensions, and where exactly character is composed. S/N.C.

Spr TAPS0200 S01 25248 M 3:00-5:50(13) "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 15680 MW 9:00-11:50(09) (B. Tannenbaum)
Fall TAPS0220 S02 15681 MW 1:00-3:50(09) (B. Tannenbaum)
Fall TAPS0220 S03 15682 MW 9:00-11:50(09) (B. Tannenbaum)
Fall TAPS0220 S04 15683 MW 1:00-3:50(09) (B. Tannenbaum)
Fall TAPS0220 S05 15684 MW 9:00-11:50(09) (B. Tannenbaum)
Spr TAPS0220 S01 25260 MW 9:00-11:50(12) (B. Tannenbaum)
Spr TAPS0220 S02 25261 MW 1:00-3:50(12) (B. Tannenbaum)
Spr TAPS0220 S03 25262 MW 9:00-11:50(12) (B. Tannenbaum)
Spr TAPS0220 S04 25263 MW 1:00-3:50(12) (B. Tannenbaum)
Spr TAPS0220 S05 25264 M 9:00-11:50(12) (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 basis 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/N.C.

Fall TAPS0230 S01 15876 MW 11:00-1:50(16) (K. Moore)
Fall TAPS0230 S02 16238 TTh 1:00-3:50(08) (S. d’Angelo)
Spr TAPS0230 S01 25250 MW 1:00-3:50(06) (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 15685 MWF 10:00-11:50(14) (A. Haynes)
Spr TAPS0250 S01 25256 MWF 10:00-11:50(03) (A. Haynes)

TAPS 0260. Stage Lighting.
This course is an introduction to stage lighting. Enrollment limited to 20.

Fall TAPS0260 S01 16242 TTh 10:00-12:50(13) (T. Het)

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/N.C.

Fall TAPS0310 S01 15874 MTWTh 1:00-2:20(06) (J. Strandberg)

TAPS 0330. Mande Dance, Music and Culture.
Mande, Dance, Music and Culture explores three distinct life-cycle and celebratory dances from the Bambara, Malinke, Wasalu, and Khassson peoples of Mali, West Africa. Each dance is taught in relationship to relevant oral histories, folklore and contemporary expressions. Emphasis is placed upon building a mindful community of committed thinkers and doers. Attendance at the first class is required. There is an application process for enrollment. Enrollment limited to 100. S/N.C.

Spr TAPS0330 S01 25243 MWF 1:00-2:50(06) (M. Bach-Coulibaly)

TAPS 0700. Introduction to Theatre, Dance and Performance.
An introduction to the breadth of topics covered in the TAPS Department, this class is a gateway to the concentration open to all students interested in live arts. We will explore where, and why theatre, dance and performance are made and investigate their relationship to broader culture and society. Students will learn basics: how to read a play, how to appreciate dance, and how to approach the variety of venues, histories, and methods involved in production. Overlaps with other media will be explored. Visits from TAPS faculty will dovetail with the season of offerings on the TAPS main stage.

Spr TAPS0700 S01 25233 TTh 10:30-11:50(09) (R. Schneider)

TAPS 0930A. The Actor’s Instrument: Voice and Speech.
A complete and well-seasoned actor has the ability to perform with specificity and ease, both vocally and physically. Specificity comes from an integration of speech and movement technique. Ease is only possible when a mastery of technical skills reaches the point where the actor can integrate them without loss of spontaneity. 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/N/C.

Prerequisite does not apply to students registering for the Summer term through the Office of Continuing Education.

Spr TAPS0930A S01 25251 MWF 4:00-5:50(15) (T. Jones)

TAPS 0930C. The Actor’s Instrument: Stage Movement for Actors and Directors.
Students engage in a process of exploration that centers on the physical relationship of the actor to the physical reality of live performance on stage. The class is structured as a survey introduction to a variety of methods and targets beginning movers with a range of interests and performance applications. Students investigate a broad spectrum of contemporary, classic and non-western movement theories/approaches to better enhance the ability to be 3-dimensionally present in time and space and to develop skills in the art of non-textually based storytelling and performance.

Spr TAPS0930C S01 25245 TTh 1:00-3:50(08) (S. d’Angelo)

Interested students must register for AFRI 0990.

Spr TAPS0980 S01 26058 Arranged "To Be Arranged"

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 25365 MWF 10:30-11:50(04) (S. Skybetter)

TAPS 1000A. The Arts Workshop for Practice and Practice-Oriented Research (LITR 1000).
Interested students must register for LITR 1000.

Fall TAPS1000A S01 17628 Arranged "To Be Arranged"

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
TAPS 1050E. RPM Playwriting (AFRI 1050E). Interested students must register for AFRI 1050E.
Spr TAPS1050E S01 26061 Arranged "To Be Arranged"

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 assisting 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 16254 F 10:00-12:50(14) (B. Reo)

TAPS 1110. Voices Beneath the Veil (AFRI 1110). Interested students must register for AFRI 1110.
Fall TAPS1110 S01 17625 Arranged "To Be Arranged"

TAPS 1170. Acting Methods for Period Texts. This course explores and hones the actor's craft of performing dramatic texts from various periods across theatre history.
Fall TAPS1170 S01 17418 MW 2:00-4:30(07) (S. dAngelo)

TAPS 1230. Global Theatre and Performance: Paleolithic to the Threshold of Modernity. 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 expression.
Fall TAPS1230 S01 16240 TTh 1:00-2:20(08) (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.
Spr TAPS1240 S01 25266 TTh 10:30-11:50(09) (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."
Spr TAPS1250 S01 25267 TTh 2:30-3:50(11) (R. Schneider)

TAPS 1280C. Stage Lighting II. This class is a continuation of Stage Lighting. The major portion of this class is to give the student opportunity to create an actual design on stage for the Theatre Arts & Performance Studies (TAPS). Each individual student's main project will be to create a light design and be part of the production team of a Sock and Buskin produced show. The class will be an open forum for students to share ideas about their perspective designs. The class is also set up for the continuation of expanding their Vectorworks Spotlight and Lightwright skills, as well as light console programming.
Fall TAPS1280C S01 16252 W 3:00-4:30(17) (T. Hett)
Spr TAPS1280C S01 25272 W 3:00-4:30(10) (T. Hett)

TAPS 1280E. Neurodiversity and Performance. This course will use the framework of performance studies to investigate the emerging concepts of neurodiversity and neurodivergence—terms originally developed by autistic activists and self-advocates seeking to depathologize autism and other forms of neurological, mental, and cognitive difference. Course materials will incorporate perspectives from theatre, performance, and other aesthetic modes in addition to theoretical and scholarly work from disability studies, the history of science, and cultural studies. We will also ask how social movements such as neurodiversity and mad pride have used performative strategies to contest and reformulate how we understand disability and neurological difference.
Spr TAPS1280E S01 26008 W 4:00-5:30(10) (L. Hilton)

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 25258 M 3:00-5:50(13) (R. Fitzgerald)

TAPS 1280M. A Producer Prepares: Curation, Ethics, and the Entrepreneurial Practice of Arts Programming. This course introduces students to the complex relationships between cultural entrepreneurs, buyers, sellers, producers, managers, audiences and artists. Through readings, guest speakers and case studies, with particular emphasis on emerging media technologies, business practice and live art administration, “A Producer Prepares” will arm students with the critical, historical, managerial and curatorial tools necessary to produce work in the contemporary cultural economy. This course seeks to situate the arts curation and production within histories of cultural practice, management and technology, and ultimately aims to endow student producers with the critical acumen necessary to thrive in a arts sector in flux. Mandatory S/NC
Spr TAPS1280M S01 26176 F 1:00-3:30 (S. Skybetter)

TAPS 1281A. Director/Designer Collaborative Studio. Students will explore the relationship between director and designer within the production process. The main objective is to improve collaboration and production output by learning the language, tools, and skills involved in each area of discipline so as to enhance creative output. Enrollment limited to 17 students.
Fall TAPS1281A S01 15878 M 3:00-7:00(17) (K. Moore)

TAPS 1281E. Directing Theory and Practice. Directing Theory and Practice is a hybrid academic and studio class designed to introduce students to the history, theory, and practice of the director’s craft. Readings on the theoretical/practical methods of direction are examined closely in class discussions and directing projects. All students must serve as actors and directors throughout.
Spr TAPS1281E S01 25270 W 1:00-5:00(06) (K. Moore)

TAPS 1281F. Choreography ONE: Dancemaking Pre-Classic to Post-Modern. “Choreography ONE” is a studio dance class emphasizing historical compositional methods and asking students to create dances in a similar style. All methods, dances and vocabularies for making and critiquing dances will be examined in historical, cultural and performative context. Students work towards mastery of key compositional techniques while becoming practiced in writing and speaking about dances. Students receive dedicated lab and class time to respond to solo and group choreographic assignments, and collaboratively practice critical response, facilitation skills and dramaturgy. At semester conclusion, students will have choreographed and extensively workedshopped a short solo performed in an informal class showing.
Fall TAPS1281F S01 16083 MW 10:00-11:30(14) (S. Skybetter)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
TAPS 1281M. Introduction to Costume Construction.
An introduction to the study and practice of costume construction skills. Topics include basic machine, hand sewing and patternmaking techniques. Instructor overrides will not be provided until the start of class.
Fall  TAPS1281M S01  16246  W  3:00-6:50(17)  (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.
Spr  TAPS1281O S01  25254  TTh  1:00-3:50(08)  (K. Moore)

TAPS 1281Q. Introduction to Dance Studies.
This course introduces students to the field of critical dance studies by examining movement as a social, cultural, and political identity-making practice. Beginning from our current location, we will investigate how citizen identities are constructed, negotiated, and contested through concert dance, social dance, ritual practice, and choreographies of protest. How do dance practices express belonging and exclusion, participating in the making of modern nation states and their subjects? How does choreography by Black and Indigenous activists build community and demonstrate political dissent? Our goal is to develop critical methods for analyzing embodied politics of movement.
Fall  TAPS1281Q S01  17774  TTh  2:30-3:50(03)  (J. Dellecave)

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.
Fall  TAPS1281W S01  16244  MW  2:30-3:50(07)  (J. Strandberg)

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  25268  TTh  2:30-3:50(11)  (J. Strandberg)

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  16213  MWF  3:00-4:50(17)  (S. Baryshnikov)

TAPS 1330. Dance History: The 20th Century.
An exploration of the major figures and trends in modern dance. While the main focus of the course is on American Dance, attention is given to earlier European and other dance traditions that have contributed to the American dance heritage. May be of particular interest Americanists, art historians, dancers, and theatre majors.
Fall  TAPS1330 S01  16233  TTh  10:30-11:50(13)  (J. Strandberg)

TAPS 1341. Introduction to Ballet.
An introduction to the classical ballet vocabulary and basic movement patterns. We will focus on maintaining correct body alignment while increasing fitness and coordination, and develop a deeper appreciation for ballet in the context of the liberal arts. No prior ballet experience is necessary for this course, but advanced dancers who would like to brush up on basics are also welcome.
Spr  TAPS1341 S01  26135  TTh  9:00-10:20(01)  (P. Seto-Weiss)

TAPS 1343. Intermediate Ballet.
This course is designed for students who have successfully completed Advanced Beginning Ballet (TAPS 1342) and kept up with their dance conditioning, or for students with previous ballet experience at an advanced beginner/intermediate level. The main focus of this class is on center exercises, especially on pirouettes and petit, medium and grand allegro appropriate for an intermediate level. Instructor override required.
Fall  TAPS1343 S01  17301  TTh  9:00-10:20(02)  (P. Seto-Weiss)

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  15875  Th  8:00PM-10:00PM(12)  (J. Strandberg)
Fall  TAPS1350 S01  15875  MW  6:30-9:30PM(12)  (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.
Spr  TAPS1360 S01  25244  Th  8:00PM-10:00PM(14)  (J. Strandberg)
Spr  TAPS1360 S01  25244  MW  6:30-9:30PM(14)  (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.
Spr  TAPS1370 S01  25246  Su  3:00-7:00  (M. Bach-Coulibaly)
Spr  TAPS1370 S01  25246  Th  6:00-8:00PM  (M. Bach-Coulibaly)
Spr  TAPS1370 S01  25246  T  6:00-10:00PM  (M. Bach-Coulibaly)

TAPS 1380. Mise en Scene.
A reconstruction of the idea of a stage and a frame on the evidence of theory, novels, plays, and especially films-the seen and the unseen-using the organizing strategies of mystery. Art's "impossible" brokering of the real and the representational in a dialectic of space is considered from a multiplicity of perspectives in diverse works. Enrollment limited to 20. Instructor permission required.
Fall  TAPS1380 S01  15886  M  3:00-5:30(05)  (S. Golub)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
TAPS 1500H. Advanced Playwriting.
This unique course combines Brown undergraduate/graduate students with Brown/Trinity M.F.A. Acting and Directing students to explore bodies on stage, in specific time and space. Students create original short, theatrical works as they examine and experiment with multiple narrative techniques. Classes include craft exercises and close readings of a diverse range of texts—all to look deeper at how works are built. Through energetic workshop-style classes, this rare and significant collaboration allows students of different backgrounds to experience the full process of drafting, hearing the words aloud, and revising original works. Open to graduate/undergraduate students. Prerequisite: TAPS 0100 and 0200. Enrollment limited.

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.

TAPS 1600. Dramaturgy.
This course is an introduction to dramaturgy and script analysis for advanced undergraduates. It will introduce a variety of plays and critical approaches to dramatic texts and performances with emphasis on culturally divergent dramaturgies, adaptation and textual analysis for performance.

TAPS 1610. Political Theatre of the Americas.
This course explores political theatre and performance in Latin America, the US and Canada. The primary concern will be the use of performance in indigenous rights, queer rights, and gender equity campaigns as well as general critiques of socioeconomic inequity. The course examines the strategies used by actors in theatrical performances, performance art, and political protests that use the tools of performance. Exploration is of the rich relationship between politics and performance. There are no prerequisites, but one course in either Latin American Studies or Theatre and Performance Studies is recommended.

TAPS 1690. Performance, Art, and Everyday Life.
Provides an introduction to performance-based art. Some knowledge of the historical avant-garde is required. The class will explore site-specific work, time-based work, life art, body art, instruction art and a variety of intermedial artwork. Theories of "theatricality" and "performativity" will be explored as will expressive properties of repetition, excess, mimicry, banality, mobility, framing, failure and shock. Enrollment limited to 16.

TAPS 1900K. Reading Sex (ENGL 1900K).
Interested students must register for ENGL 1900K.

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.

TAPS 2200B. Neoliberalism and Performance.
This course will explore the relationship between performance (dance, theatre, performance art, public art) and Neoliberal economic and governmental policies and practices. We will place special emphasis on how the arts participate in modes of labor flexibility, globalisation, entrepreneurship, governmentality and surveillance as well as how these forms critique these phenomenon. Critical readings will include political theory, play and performance texts and videos and economic theory.

TAPS 2300H. Graduate Seminar in Theatre and Performance Studies: Body Politics.
This graduate-level seminar for students working in performance studies and related areas will consider new directions in the field’s longstanding investment in theorizing the politics of embodiment. Reading one academic book per week, we will explore a range of theoretical frameworks and methodological approaches in for asking what the body "is", what the body "does"—with particular interest in how performance studies interfaces with emerging fields such as queer of color critique, trans studies, disability studies, and science and technology studies. Students will write a culminating seminar paper connected to the course theme that expands upon their own research interests.

TAPS 2310. Graduate Playwriting.
With Word as the bodying forth into social reality of original experience, the structures, purposes and ethical risks of writing for performance are examined; experienced through the reading of each other's works-in-progress, through the reading of essays and in session exercises. Must be taken by playwriting grad students every semester in residence. May be taken multiple times for credit. Undergraduates will be admitted with permission of the instructor. S/NC

TAPS 2450. Exchange Scholar Program.
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 Stanislavski system. A major part of this course will include rehearsal and performance responsibilities.

This course will explore the relationship between performance (dance, theatre, performance art, public art) and Neoliberal economic and governmental policies and practices. We will place special emphasis on how the arts participate in modes of labor flexibility, globalisation, entrepreneurship, governmentality and surveillance as well as how these forms critique these phenomenon. Critical readings will include political theory, play and performance texts and videos and economic theory.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
All Voice and Speech work has two underlying goals: for the actor to be heard; for the actor to be understood. A daily warmup, rigorous drilling, the learning of IPA, and its application in Standard American dialect will build muscle to strengthen your instrument for clarity of speech and train your ear to the nuances of speech sounds, invaluable for dialect and character work. The Alexander Technique uses gentle guidance to enable movement to take place unencumbered by habitual effort. Voice, Speech and Alexander work together to enable the actor to produce clear, tension-free sound.

Fall TAPS2515 S01 11272 Arranged (T. Jones)
Spr TAPS2515 S01 25227 Arranged "To Be Arranged"

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 11274 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 11274 Arranged (B. Mertes)

This course is designed to activate the mind of the director. It is a detailed investigation of the creative process and the beginning of the foundation for communication with actors, designers and audiences in the making of live performance with text. MFA students will participate in Directing Lab, rehearsing as assigned.

Fall TAPS2535 S01 17509 Arranged (B. Mertes)

TAPS 2545. Playwriting and Dramaturgy.
This course has two modalities. Introduction to Dramaturgy will introduce a wide variety of play and critical approaches to dramatic texts and performances, with emphasis on culturally divergent dramaturgies, embodied dramaturgy, adaptation and textual analysis for performance. Introduction to Playwriting/Script Analysis will include close readings of texts to observe/define how works are built by exploring and mapping the mechanics of a diverse range of texts. By charting others’ voices, students will discover their own and what makes it valuable and necessary before experimenting with the mechanics, crafting and experiencing the full process of writing, revising, and—ultimately—staging original works.

Fall TAPS2545 S01 17680 W 3:00-5:00(17) (R. Ybanna)

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 20162 Arranged (B. McEleney)

TAPS 2560. Voice: Phonetics.
This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. The course will teach articulation, self expression, and link to text and acting. Additional work is devoted to speech and diction, with an introduction to the International Phonetic Alphabet (IPA) and a progression through Standard American Speech to rudimentary dialect work.

Spr TAPS2560 S01 20163 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 20164 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 20165 Arranged (B. Mertes)

An introduction to the conventions of classical English verse performance, including elements of meter, heightened language, metaphor and rhetoric, with the goal of expanding the actor’s understanding of the principles of realistic acting to the rigorous demands of Shakespearean and other classical texts. This course includes separate classes in Scene Study, Voice and Movement, all designed to support and promote heightened poetic expressivity in performance. S/NC

Fall TAPS2605 S01 17505 Arranged (T. Jones)

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 11276 Arranged (T. Jones)

TAPS 2615. Acting Technique III: Poetic Expression.
Vocal and physical work designed to support the exploration of classical verse acting, with an emphasis on expanding a range of performance beyond realism. Rhythm, fluidity, presence, power, clarity of thought and the expression of emotional depth through language and movement is the focus of studio practice. Also included is introduction to singing technique. This course includes separate classes in Movement Technique, Alexander Technique and Singing.

Fall TAPS2615 S01 16117 Arranged (S. Baryshnikov)

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 11277 Arranged (S. Baryshnikov)

TAPS 2625. Playwriting Dramaturgy Practicum.
This course is advanced playwriting and script analysis for second year students. We will look deeper at the tools and craft of playwriting. We will begin by exploring adaptation—what are the bones and tissues of a given story? How can that body be transformed into a theatrical story? What is required? What changes? What is the relationship between form and content? We will transition from adaptation to writing original full-length works.

Fall TAPS2625 S01 17429 Arranged (D. Smith)

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 11278 Arranged (B. Mertes)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
TAPS 2635. Directing III: The Director's Vision.
This course is for Brown/Trinity MFA Actors and Directors and focuses on the vision of the director. Deep investigation in complicated language, verse, period. Continued development in collaboration with actors as well as personal mission, and vision. Seminar discussion of current work in process and production, exploration of contemporary dramatic forms and practitioners, issues in the art and craft of directing, diagnostic and exchange around the breaking of boundaries and best practices. Seminar runs concurrently with Directors Lab, Director projects, including thesis, and verse.
Fall TAPS2635 S01 16115 Arranged (B. Mertes)

TAPS 2645. Fall Directing Practicum.
This credit is designed to build the director's skills in preparation, script analysis, and rehearsal processes in the making of a Shakespeare production which tours into the Providence School System, a kind of "mobile unit" production. This project has very clear parameters and minimal design to center the work on the embodiment of the text by the actors. It is intended to center the actor in the making of work, requires a deep understanding of the text through analysis, and an edit to get it to a length that will support the tour.
Fall TAPS2645 S01 16116 Arranged (B. Mertes)

In-depth study of the methods and practice of classical acting, with the goal of developing professional-level skill and mastery of the form. Actors work toward total integration of the physical and vocal instrument into a unified whole to achieve complete expressivity of thought, emotion, character and imagination through poetic language and vigorous, purposeful and creative physicality. This course includes separate classes in Scene Study, Voice and Movement Composition.
Spr TAPS2655 S01 26212 Arranged (T. Jones)

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 20167 Arranged (T. Jones)

TAPS 2665. Acting Technique IV: Creativity and Virtuosity.
A culmination of the technical practice of the previous three semesters, with the goal of achieving a professional level of technical expertise. Through mastery of the vocal and physical instrument, the actor is prepared to fulfill creative, imaginative and athletic choices in physical and vocal performance. This course includes separate classes in Alexander Technique, Singing and Movement/Devising.
Spr TAPS2665 S01 25240 Arranged (S. Baryshnikov)

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 20168 Arranged (S. Baryshnikov)

TAPS 2675. Advanced Playwriting.
We will do craft exercises and close readings of texts to look deeper at how works are built. We will explore, discover, and map the mechanics of a diverse range of texts. You will have the opportunity to experiment with those same mechanics to create your own pieces. Through energetic workshop-style classes, you will experience the full process of drafting, hearing aloud, and then revising original works. In charting and defining others' voices, you will discover your own particular voice and what makes it valuable and necessary.
Spr TAPS2675 S01 26005 Arranged (D. Smith)

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 director a professional production at Trinity Rep Company.
Spr TAPS2680 S01 20169 Arranged (B. Mertes)

TAPS 2685. Directing IV: Special Topics.
This course is focused on the development of advanced and augmented research and the deepening of communication with designers and production team. Directors will explore a variety of methodologies and approaches to theater-making.
Spr TAPS2685 S01 25239 Arranged (B. Mertes)

TAPS 2695. Spring Directing Practicum.
Spring Directing Practicum is the spring repertory production in the end of the fourth semester directed by each MFA Directing Student. This production is fully designed with a professional design team and presented to the public at the Pell Chafee Performance Center in cooperation with Trinity Rep.
Spr TAPS2695 S01 25241 Arranged (B. Mertes)

TAPS 2705. Third Year Practicum: The Actor as Creator.
Based upon a foundation of mastery in realistic and classical acting styles, actors engage in an exploration of historical, modern and contemporary dramatic literature and theatre practice with a goal of developing a personal aesthetic voice that pushes the boundaries of convention and tradition in their mature theatre practice. This course includes separate classes in Scene Study, Voice, Movement and Alexander Technique, as well as participation in Director's Lab. S/NC
Fall TAPS2705 S01 17506 Arranged (B. McEleney)
Spr TAPS2705 S01 25232 Arranged (B. McEleney)

This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. This course will teach actors various American regional dialects and international accents including British, Irish, Italian and Russian. Students will examine the language with the use of the International Phonetic Alphabet, and will be expected to perform using the regionalisms and dialect and then teach it to the rest of the class.
Fall TAPS2710 S01 11280 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 11281 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 11282 Arranged (S. Baryshnikov)

TAPS 2755. Third Year Practicum: The Actor as Total Theatre Artist.
Actor's produce, direct, write and perform an original solo piece as a culmination of their ongoing study of acting, directing and playwriting, with the goal of developing confident expression of their singular voice, point of view and artistic aesthetic as they enter the professional world. Writing, devising, presentation and critique of ongoing work all take place throughout the semester, culminating in a final public performance that serves as an acting thesis and manifesto of the actor's identity as an individual artist. This course includes private work with members of the Acting, Directing, Voice, Movement, and Playwriting faculty.
Spr TAPS2755 S01 26006 Arranged (B. McEleney)

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 20171 Arranged (S. Berenson)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Palestinians to transcend their conflicting narratives and attain mutual understanding. Attention will also be paid to efforts by Israelis and Palestinians to tell themselves and others about their struggle over Palestine/Israel. Sources will include historical documents, memoirs, and accounts by individuals as they relate to local and larger social structures. Morality and the role of individuals as they interface with others around them and their responsibility for working with society both at community level and at the macro-state level will be explored.

TAPS 2770. Directing: Practical Application. 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 publicity, budgeting, press relations, marketing, and development.

TAPS 2790. 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.

TAPS 2970. Thesis Workshop. 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 residency requirement and are continuing research on a full-time basis.

University Courses

UNIV 1001. The Israeli-Palestinian Conflict: Contested Narratives. We will compare the radically different narratives that Palestinians and Israelis tell themselves and others about their struggle over Palestine/Israel. Sources will include historical documents, memoirs, and accounts of the conflict by Israeli and Palestinian historians. We will read works of fiction and view films that present the story of the conflict from both perspectives. Attention will also be paid to efforts by Israelis and Palestinians to transcend their conflicting narratives and attain mutual understanding. All sources are in English translation.

UNIV 1110. The Theory and Teaching of Problem Solving. What is a problem and how do you solve one? What relationship exists between problem-solving and teaching? This course is designed for STEM students who are teaching/will teach and are interested in improving their problem-solving and teaching. You will gain the skills that will aid you in your own learning, promote learning in others, improve communication and problem-solving capabilities, and prepare you to engage more deeply in diverse learning spaces. In the final weeks of the course you will apply course concepts to a Scholarship of Teaching and Learning project that focuses on improving/examining problem-solving and/or teaching in your field. S/NC

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 outside of what is true from what is false, but who realize at the end of four years that they have deconstructed their own 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.

UNIV 1701. Discrimination and Public Policy. This course examines structural discrimination and interpersonal discrimination as possible drivers of race, gender, and social class inequalities primarily within the U.S. but also in other parts of the world. Key questions involve: What is (and what is not) discrimination? How do social scientists measure discrimination? What do differing methods allow us (and do not allow us) to say about the existence and mechanisms of discrimination? What are the consequences of discrimination? What are possible policy approaches to addressing discrimination? Spr

UNIV 1701 S01 17898 MWF 3:00-5:30(17) (J. Owens)

UNIV 2460. Introduction to Digital Humanities. This course will introduce graduate students with the emerging field of digital humanities. We will cover some theoretical issues relating to digital humanities, but the main focus is practical. We will cover the elements of good project design and implementation, including standards, data architecture, access, preservation, usability, and grant-writing while also reviewing a suite of useful tools. Students will develop their own projects throughout the semester. No previous experience is assumed and all disciplines are welcomed. Instructor permission only.

UNIV 2600. Reading and Writing in the Humanities. This course is designed for students who have declared a Humanities major and who realize at the end of four years that they have deconstructed their own 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.

UNIV 2605 W 3:00-5:30(10) (M. Satlow)

URBN 0210. The City: An Introduction to Urban Studies. This introductory course to Urban Studies is taught in an entirely new format. Led by Professor Zipp, 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? Fall

URBN0210 S01 15661 TTh 1:00-2:20(08) (S. Zipp)

URBN 0230. Urban Life in Providence: An Introduction. 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.

URBN0230 S01 15504 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. Spr URBN1000 S01 24237 TTh 10:30-11:50(09) (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 15459 TTh 10:30-11:50(13) (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 15596 TTh 2:30-3:50(03) (M. Bull)

URBN 1270. Urban Politics and Urban Public Policy. A central theme of the course is that urban politics in the United States 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. Fall URBN1270 S01 24860 TTh 2:30-3:50(11) (M. Orr)

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 city residents. Important concepts are illustrated through field trips, public meetings, and guest speakers. Fall URBN1870D S01 15461 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. Prioritizes reading and class discussions. Fall URBN1870J S01 15469 M 3:00-5:30(05) (M. Orr)

URBN 1870N. The Cultural and Social Life of the Built Environment. This seminar investigates the relationship between people and place. It considers the ways that people create and experience the human-made landscape, how they understand place through various aesthetic forms, and political conflict over space and place. We look mostly at the history and contemporary development of cities and suburbs in the United States. Students will prepare a final project on a specific aspect of the built environment; they will be encouraged to focus their research on Providence or another local community. Enrollment limited to 20. Priority given to Urban Studies concentrators and seniors; instructor permission required otherwise. Spr URBN1870N S01 24240 W 3:00-5:30(10) (S. Zipp)

URBN 1870T. Transportation: An Urban Planning Perspective. 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. Spr URBN1870T S01 24238 Th 4:00-6:30(17) (R. Azar)

URBN 1870Z. Housing Justice. Housing is fundamental to overall well-being, yet in RI many cannot find affordable, decent housing aligned with their needs. This community-based research course engages with local housing justice organizations working for change. Course participants, organizational staff, and community members will gather and analyze data to inform interventions and/or modify policies. After some foundational studies, the semester will be spent immersed in a team research project. Topics may include evictions, studentification and gentrification, rental inspections, property ownership, and healthy housing. The course will advance skills in research, communication, and collaboration, and expand understanding of the housing system. Fall URBN1870Z S01 17422 T 4:00-6:30(09) (M. Bull)

URBN 1871B. Berlin: Global Metropolis (1945-2020). This seminar explores the physical and human landscapes of post-war Berlin: its steadily expanding urban fabric and how it engages with the rapidly changing population make-up. The focus will be on the tension between past and present histories, new German identities, the recent massive migrations, anti-Semitism and Islamophobia, and how these social and geopolitical phenomena interact with the city’s urban spaces and monuments. As case studies, we will explore the relationship among Germans and three other significant communities: Turks, Israelis, and Palestinians. Fall URBN1871B S01 17536 Th 4:00-6:30(04) (K. Galor)

URBN 1970. Independent Reading and Research. A specific program of intensive reading and research arranged in terms of the special needs and interests of the student. Open primarily to concentrators, but others may be admitted by written permission. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. URBN 1971. Senior Honors Thesis I in Urban Studies. A program of intensive reading, research, and writing under the direction of a faculty mentor. 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 1972. Senior Honors Thesis II in Urban Studies. A program of intensive reading, research, and writing under the direction of a faculty mentor. 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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
URBN XLIST. Courses of Interest to Concentrators in Urban Studies. 

Fall 2019.
The following courses offered by other departments will fulfill Core Discipline, Seminar, and Complementary Course requirements of the Urban Studies concentration. (Please refer to the Urban Studies website to determine which requirements are fulfilled by these courses.)
Please check with the sponsoring department for times and locations.

Applied Mathematics 
APMA 1650 Statistical Inference I
Archeology and the Ancient World
ARCH 1900 The Archaeology of College Hill
Cognitive, Linguistic, Psychological Sciences
CLPS 0900 Quantitative Methods in Psychology
Economics
ECON 1620 Introduction to Econometrics
Education
EDUC 1110 Introductory Statistics for Education Research
Environmental Studies
ENVS 1400 Sustainable Design in the Built Environment
History of Art and Architecture
HIAA 0100 Intro to Architectural Design Studio
HIAA 0850 Modern Architecture
History
HIST 1310 History of Brazil
HIST 1500 American Urban History to 1850
Public Policy
PLCY 1910 Social Entrepreneurship
Political Science
POLS 1600 Political Research Methods
POLI 1822S Politics of Urban Transformation
Sociology
SOC 0310 Theory & Practice of Engaged Scholarship
SOC 1100 Introductory Statistics for Social Research
SOC 1270 Race, Class & Ethnicity in the Modern World
SOC 1340 Principles and Methods of Geographic Information Systems

Visual Art

VISA 0100. Studio Foundation.
Required for all VA and RISD courses (with the exception of VISA0120, VISA0130, VISA0140, VISA0150 and VISA0160). Covers the basics of drawing and 2D design while cultivating the capacity for visual thinking. The Registrar’s Office manages an online lottery for registration for this popular course. Students not enrolled through the lottery should attend the first class meeting.

Fall 2019.

VISA 0100 S01 16794 MW 1:00-2:50(05) (L. Correa-Carlo)
VISA 0100 S02 16795 MW 4:00-5:50(05) (L. Correa-Carlo)
VISA 0100 S03 16796 Th 1:00-2:50(05) (A. Evans)
VISA 0100 S04 16797 Th 4:00-5:50(05) (A. Evans)
VISA 0100 S05 16798 MW 10:00-11:50(05) (A. McNeary)
VISA 0100 S06 16799 MW 1:00-2:50(05) (A. McNeary)
VISA 0100 S07 16800 T 9:00-12:50(05) (D. Hoffman)
VISA 0100 S08 25977 MW 1:00-2:50(12) (L. Correa-Carlo)
VISA 0100 S09 25978 MW 4:00-5:50(12) (L. Correa-Carlo)
VISA 0100 S10 25979 TTh 1:00-2:50(12) (A. Evans)
VISA 0100 S11 25980 TTh 4:00-5:50(12) (A. Evans)
VISA 0100 S12 25981 W 9:00-12:50(12) ‘To Be Arranged’
VISA 0100 S13 25982 Th 9:00-12:50(12) ‘To Be Arranged’
VISA 0100 S14 25983 M 9:00-12:50(12) (A. McNeary)

VISA 0120. Foundation Media.
Foundation media focuses on the production and theory of time-based digital media and introduces the computer as a medium and a tool for art. Students will experiment with the production of video, sound, and interactive media. Students will examine and produce work that is multidisciplinary in nature, combining aspects of critical discourse, art, and technology.

Fall 2019.

VISA 0120 S01 16801 TTh 10:00-11:50(13) (E. Osborn)
VISA 0120 S02 25985 TTh 10:00-11:50(09) (E. Osborn)

VISA 0140. Photography Foundation.
This class 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 2019.

VISA 0140 S01 16899 M 9:00-12:50(01) (V. Charlesworth)
VISA 0140 S02 16900 Th 1:00-4:50(08) (V. Charlesworth)
VISA 0140 S03 25988 Th 4:00-7:50(17) (L. Beeferman)
VISA 0140 S04 25989 T 9:00-12:50(02) (L. Beeferman)

VISA 0160. Foundation Painting.
Painting in acrylics 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 cover basic color principles, painting techniques and concepts. Assignments cover a wide range of approaches including painting from observation, the model, individual research, and imagination. 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 2019.

VISA 0160 S01 16808 T 9:00-12:50(01) (L. Tarentino)

VISA 1000. The Arts Workshop for Practice and Practice-Oriented Research (LITR 1000).
Interested students must register for LITR 1000.

Fall 2019.

VISA 1000 S01 17686 Arranged ‘To Be Arranged’

VISA 1110. Drawing.
This course focuses on drawing from models, observation, and imagination in a variety of media with an emphasis on creative work and classroom participation. A continuing series of outside assignments is emphasized. Visits to galleries, museums and pertinent exhibitions may be undertaken. The later part of this course will introduce ideas of conceptual and political art into the drawing process. Pre-requisite: VISA 0100. Enrollment restricted to 20 students. 18 seats available during pre-registration. Students not admitted during pre-registration should attend the first meeting. Overrides for this course are available upon request after the first class.

Spr 2019.

VISA 1110 S01 25990 Th 9:00-10:50(01) (P. Myoda)

VISA 1160. Drawing with Watercolor.
This course will be a rigorous examination of the possibilities of drawing with watercolor, with 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. Required prerequisite: VISA 0100 or by permission.

Spr 2019.

VISA 1160 S01 26024 MW 1:00-3:50(06) (L. Tarentino)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
VISA 1210D. Lithography I & II.
Lithography is the most versatile printmaking process. Working on limestone and aluminum plates, students will learn to produce, process and print their work. Class participation is vital, as students will be aiding each other in this complicated process. This course requires considerable time outside of class. Lithography can be repeated, with experienced students learning multi-plate color processes.

Fall VISA1210D S01 16821 TTh 1:00-4:50(08) (L. Bostrom)

The aim of the course is to understand the variability, sequencing potential and the inherent luminosity of the monotype medium and to use these attributes to discover and advance one's own visual ideas. Monotype refers to the making of a single unique print through press and non-press means. Several rapid projects with themes will precede a longer series culminating in a final epic portfolio of independent content. Individual, peer, and small and large group critiques will occur weekly for feedback. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.

Fall VISA1210J S01 25999 MW 9:00-11:50(02) (L. Tarentino)

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 16813 TTh 9:00-12:50(02) "To Be Arranged"
Spr VISA1240 S01 25992 MW 1:00-4:50(06) "To Be Arranged"

VISA 1310. Beginning Painting.
This painting course explores ideas and concepts in contemporary painting and emphasizes individual projects based on prompts. Students will experiment with materials, color and scale strengthening ideas through individual investigations into content and context. Critiques, readings, writing assignments and final projects will be supplemented by research into artists and movements that have developed within the last several decades. Enrollment limited to 14. Prerequisites: VISA 0100.

Fall VISA1310 S01 16825 MW 1:00-4:50(06) (W. Edwards)

VISA 1320. Advanced Painting.
This course is an in-depth investigation of contemporary painting practices and concepts, with a strong emphasis placed on critique. Experimentation and exploration of individual themes is emphasized. Affords an opportunity for in-depth investigations of painting techniques and ideas and the development of a series of works reflecting an individual creative vision.

Fall VISA1320 S01 16814 TTh 1:00-4:50(08) (L. Tarentino)

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.

Spr VISA1340 S01 26025 MW 1:00-4:50(06) (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 16839 TTh 12:00-3:50(08) (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 25993 TTh 12:00-3:50(08) (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 16832 TTh 9:00-12:50(02) (T. Ganz)
Spr VISA1510 S01 25994 MW 1:00-3:50(06) (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 16837 MW 1:00-4:50(06) (R. Ross)
Spr VISA1520 S01 25995 MW 9:00-11:50(02) (T. Ganz)

VISA 1740. Time Deformation.
This studio course explores modes of electronic media by focusing on time as a primary material. Students will develop projects for specific sites and situations in response to assigned topics individually and in groups. Selected works in video, sound, performance, and online media that make innovative use of temporal strategies will be examined. Production work will be complimented by technical lectures, readings and discussions, and screenings.

Fall VISA1740 S01 16838 TTh 1:00-4:50(08) (E. Osborn)

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.

Fall VISA1800C S01 16840 TTh 9:00-10:50(02) (P. Myoda)

Contemporary artists are makers, researchers, writers, curators. This is a hybrid seminar/ studio course on the global practice of contemporary art and how we can apply those lessons to our own artmaking. We will focus on questions such as “How do artists run their studios”, “What is the place of history and identity?” and “How does art function as a commodity?” Class projects will include short writings and making objects. We will visit artists studios and have artists come to talk to us. Department trips to New York will be a part of the curriculum.

Fall VISA1800G S01 17223 W 9:00-12:50(01) (T. Ganz)

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

Spr  VISA1800P  S01  25998  F  1:00-4:50(06)  (H. Bhandari)

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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Undergraduate Concentrations

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. Africana Studies presents a different conceptual paradigm that connects the global black experience. Africana Studies engages issues about historical and contemporary responses to local and global crises. It engages with how people of color create their own knowledge culturally and politically. It is often times a critique of how forms of knowledge are produced. Concentrators acquire a host of interdisciplinary skills that allow them to ask questions about the world around them, and forms of knowledge production while developing critical analytical skills. Our concentrators deploy these skills in other classes, enriching their own general intellectual development.

In order to develop requisite competency in the discipline of Africana Studies, concentrators must complete eight (8) semester-long courses offered by or cross-listed with the Department. Six (6) courses must have an AFRI prefix or be offered by Africana Studies core faculty. Two (2) courses can be cross-listed. In some cases, Concentrators may petition the Department to accept other appropriate courses. Of these 8 courses, the following Africana Studies courses are required:

- AFRI 0090 An Introduction to Africana Studies
- AFRI 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 required junior seminar to be offered during the second semester. Students studying abroad during the second semester of their junior year will be required to take the seminar during their senior year. If there is a documented conflict with another concentration's senior seminar, students should consult with the DUS.

The Department strongly encourages foreign study in Africa, the Caribbean, and Latin America, during the student’s junior year of concentration. Although the Africana Studies Department actively supports programs in South Africa, Tanzania, Ethiopia, Brazil, and the English-Speaking Caribbean, at least six (6) courses must be completed in the department and taught by core faculty.

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 (lundy_braun@brown.edu), Director of Undergraduate Studies.

Honors in Africana Studies

Africana Studies’ concentrators with outstanding academic records (demonstration of excellent research and writing skills from course selections to grades) may be admitted to the department’s Honors Program.

Students interested in pursuing honors should identify a faculty sponsor in Africana Studies (chosen from Core Faculty or affiliated faculty after Chair agreement) in their 6th semester and begin working on their thesis project during the summer before their senior year. By the end of the sixth semester, while working in consultation with a faculty advisor, the student must submit a rough draft of the project proposal. Please visit the department website for proposal guidelines. This preliminary plan should include a timeline for completion of the thesis and is not to exceed one (1) typewritten page. This plan should also include a bibliography that students have developed with their thesis advisor to guide their summer reading.

By the end of the summer, the Honor's candidate should be familiar with the secondary works in the field. (Secondary readings should be extensive and be incorporated into the final proposal, due Monday September 16, 2019.) The student should also identify a second reader at this point. The final work plan/proposal, not to exceed three (3) typewritten pages, should incorporate the summer research findings including the completion deadline. The final 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. By the end of week three of the first senior semester, the thesis advisor should inform the Director of Undergraduate Studies by email that the proposal has been approved.

The Honor’s candidate should complete at least one chapter of distinguished quality while enrolled in an independent study with their faculty advisor during the first semester of the senior year. 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 Friday, November 8, 2019. Final drafts must be submitted by Friday, November 29, 2019. For students completing graduation requirements by Semester II (Spring), a first complete draft of the thesis should be submitted by Friday, March 13, 2020. The final draft of the thesis should be submitted by Friday, April 17, 2020. Students must submit bound copies of the final thesis to the department and to each of their readers, along with an electronic copy of the completed thesis to the Academic Department Manager. All students are expected to formally present their thesis projects in the Department of Africana Studies on Monday, April 27, 2020 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 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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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:
- AMST 1700B Death and Dying in America
- AMST 1700C Slavery in American History, Culture and Memory
- AMST 1700D Race and Remembering
- AMST 1700F American Publics
- AMST 1700I Community Engagement with Health and the Environment

Senior Seminar: A course from the AMST 1900 series taken during the senior year, for example:
- AMST 1900A The Problem of Class in America
- AMST 1900B America and the Asian Pacific: A Cultural History
- AMST 1900C Narratives of Slavery
- AMST 1900D America as a Trans-Pacific Culture
- AMST 1900F Transnational Popular Culture
- AMST 1900G Movements, Morals, and Markets
- AMST 1900I Latina/o Cultural Theory
- AMST 1900J Race, Immigration and Citizenship
- AMST 1900K China in the American Imagination
- AMST 1900L Cold War Culture The American Culture in the Cold War
- AMST 1900N Ethnicity, Identity and Culture in 20th Century New York City
- AMST 1900O Filipino American Cultures
- AMST 1900P Essaying Culture
- AMST 1900Q From Perry to Pokemon: Japan in the United States, the United States in Japan
- AMST 1900R Gender, Race, and Class in the United States
- AMST 1900S Green Cities: Parks and Designed Landscapes in Urban America
- AMST 1900U Immigrant Radicals: Asian Political Movements in the Americas 1850-1970
- AMST 1900V Immigrants, Exiles, Refugees, and Citizens in the Americas
- AMST 1900W Latina Literature: The Shifting Boundaries of Identity

Ungraded Capstone ePortfolio
Total Credits 10

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 FOCUS

Honors
AMST 1970 Independent Reading and Research (Students pursuing honors in the concentration are required to take two semesters of Independent Study to produce the Honors Thesis)

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

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

**Students who declared a concentration prior to fall 2019 can refer to concentration requirements here:** (https://bulletin.brown.edu/archive/2018-19/the-college/concentrations/anth/)

**Anthropology Track**

Choose one foundational course in sociocultural, linguistic anthropology, or medical anthropology:

- ANTH 0100 Introduction to Cultural Anthropology
- ANTH 0300 Culture and Health
- ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology

Choose one foundational course in archaeology or biological anthropology:

- ANTH 0310 Human Evolution
- ANTH 0500 Past Forward: Discovering Anthropological Archaeology

Choose one of the following courses in anthropological methodology, to prepare students for further research:

- ANTH 1201 Introduction to Geographic Information Systems and Spatial Analysis

Total Credits: 10

**Medical Anthropology Track**

**Choose one:**

- ANTH 0310 Human Evolution
- ANTH 0500 Past Forward: Discovering Anthropological Archaeology

**Choose any one 0000 or 1000-level course in socio-cultural anthropology or linguistic anthropology such as:**

- ANTH 0100 Introduction to Cultural Anthropology
- ANTH 0110 Anthropology and Global Social Problems: Environment, Development, and Governance
- ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology
- ANTH 0805 Language and Migration
- ANTH 1111 Anthropology of China
- ANTH 1150 Middle East in Anthropological Perspective
- ANTH 1240 Religion and Culture
- ANTH 1255 Anthropology of Disasters
- ANTH 1320 Anthropology and International Development: Ethnographic Perspectives on Poverty and Progress
- ANTH 1848 Ethnography + Social Critique
- ANTH 1940 Ethnographic Research Methods
- ANTH 1990 Senior Seminar: (Re)Making Anthropology

At least one 1000-level course in medical anthropology such as:

- ANTH 1242 Bioethics and Culture
- ANTH 1300 Anthropology of Addictions and Recovery
- ANTH 1301 Anthropology of Homelessness
- ANTH 1310 International Health: Anthropological Perspectives

An additional three anthropology courses of the student’s choosing. At least two of the electives must be at the 1000-level to meet the general requirements of the concentration.

Total Credits: 10

1. Other appropriate anthropology courses may be used to fulfill this requirement with DUS approval
2. Most qualifying courses will bear a BIOL, PHP, or CLPS designation but students can choose any appropriate course to fulfill this requirement with DUS approval.
### Socio-Cultural Anthropology Track

ANTH 0100  Introduction to Cultural Anthropology  1  

One course in archaeology or biological anthropology:  1  

ANTH 0310  Human Evolution  
ANTH 0500  Past Forward: Discovering Anthropological Archaeology  
ANTH 1940  Ethnographic Research Methods  1  

At least two 1000-level courses that focus on specific aspects of sociocultural methods or theories, or in a particular region:  2  

ANTH 1111  Anthropology of China  
ANTH 1150  Middle East in Anthropological Perspective  
ANTH 1240  Religion and Culture  
ANTH 1242  Bioethics and Culture  
ANTH 1255  Anthropology of Disasters  
ANTH 1300  Anthropology of Addictions and Recovery  
ANTH 1301  Anthropology of Homelessness  
ANTH 1310  International Health: Anthropological Perspectives  
ANTH 1320  Anthropology and International Development: Ethnographic Perspectives on Poverty and Progress  

ANTH 1848  Ethnography + Social Critique  

An additional three anthropology courses of the student's choosing. At least one of the electives must be at the 1000-level to meet the general requirements of the concentration.  

ANTH 1990  Senior Seminar: (Re)Making Anthropology  1  

Total Credits  9  

### Linguistic Anthropology Track

ANTH 0800  Sound and Symbols: Introduction to Linguistic Anthropology  1  

One additional course in linguistic anthropology from the following:  1  

ANTH 0805  Language and Migration  
ANTH 1810  Language and Power  

Two other foundational courses in anthropology:  2  

Choose one:  

ANTH 0100  Introduction to Cultural Anthropology  
ANTH 0300  Culture and Health  

Choose one:  

ANTH 0310  Human Evolution  
ANTH 0500  Past Forward: Discovering Anthropological Archaeology  
ANTH 1940  Ethnographic Research Methods  
ANTH 1990  Senior Seminar: (Re)Making Anthropology  1  

An additional three anthropology courses of the student's choosing. At least two of the electives must be at the 1000-level to meet the requirements of the concentration.  

At least one general course focusing on aspects of linguistic structure.  1  

At least one language course (one semester) in any language other than English =  

Total Credits  11  

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1 This course is in addition to the nine courses required in ANTH. Given the teaching commitments of departmental faculty, eligible courses will generally be offered only in departments other than Anthropology. Recommended courses include Introduction to Linguistics (CLPS 0300) or Sociolinguistics (SLAV 1300). Students may also choose another appropriate course to fulfill this requirement with DUS approval.

2 This course is in addition to the nine courses required in ANTH. Students interested in studying a language not offered at Brown should consult with Linguistic Anthropology faculty and the DUS.

### Anthropological Archaeology Track

ANTH 0500  Past Forward: Discovering Anthropological Archaeology  1  

Choose one course in anthropological archaeology methodology:  1  

ANTH 1201  Introduction to Geographic Information Systems and Spatial Analysis  
ANTH 1621  Material Culture Practicum  
ARCH 1900  The Archaeology of College Hill  

Choose one course that involves detailed archaeological investigation of a geographic region:  

ANTH 1031  Classic Mayan Civilization  
ANTH 1126  Ethnographies of Heritage: Community and Landscape of the Mediterranean and Beyond  
ANTH 1505  Vertical Civilization: South American Archaeology from Monte Verde to the Incas  
ANTH 1624  Indians, Colonists, and Africans in New England  
ANTH 1640  Maize Gods and Feathered Serpents: Mexico and Central America in Antiquity  
ANTH 1650  Ancient Maya Writing  
ANTH 1692  Southwestern Archaeology  

One 1000-level course in anthropological archaeology with significant archaeological, material culture, and/or museum studies component. A second geographic area course from the list above may be used to meet this requirement. Other regularly offered courses that meet this requirement include:  

ANTH 1125  Indigenous Archaeologies  
ANTH 1620  Global Historical Archaeology  
ANTH 1623  Archaeology of Death  
ANTH 1750  Bioarchaeology and Forensic Anthropology  
ANTH 1820  Lost Languages: The Decipherment and Study of Ancient Writing Systems  

Three anthropology courses of the student's choosing. At least one of the electives must be at the 1000-level to meet the general requirements of the concentration.  

ANTH 1990  Senior Seminar: (Re)Making Anthropology  1  

Total Credits  9  

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1 This requirement will be waived for students who have completed an archaeological field school. The field school must be approved in advance of its completion for the requirement to be waived. Per the broader requirements of the concentration, students must still complete nine anthropology credits at Brown or via transfer credits. Note that many field schools do not carry credit.  

2 Other anthropological archaeology courses with significant geographic focus may be used to fulfill this requirement with DUS approval.  

3 Other anthropology courses with significant archaeological, material culture, or museum studies focus may be used to fulfill this requirement with DUS approval.

### Biological Anthropology Track

ANTH 0310  Human Evolution  1  

Choose one foundational course in cultural anthropology, medical anthropology, or linguistic anthropology:  1  

ANTH 0100  Introduction to Cultural Anthropology  
ANTH 0300  Culture and Health  

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

<table>
<thead>
<tr>
<th>Course</th>
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</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090 &amp; MATH 0100</td>
<td>Introductory Calculus, Part I and Introductory Calculus, Part II</td>
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<tr>
<td>CSCI 0170</td>
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</tr>
</tbody>
</table>

Five additional courses, of which four should be chosen from the 1000-level courses taught by the Division of Applied Mathematics. APMA 1910 cannot be used as an elective.

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. APMA 1910 cannot be used as an elective.
4. Concentrators are urged to complete their introductory programming course before the end of their sophomore year.

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

Engaged Scholars Program

The Engaged Scholars Program in Anthropology is geared for anthropology concentrators who are especially interested in making deeper connections between their concentration curriculum and long-term engagement with local communities in Providence and beyond. Engaged scholars combine hands-on experiences such as internships, public service, humanitarian and development work with their academic learning in order to develop a deeper understanding of, and appreciation for, social engagement. While most anthropology courses have some sort of ‘engaged’ element, being an Engaged Scholar in Anthropology means making a commitment to engaging more actively and intensively with the communities in which a student is living.

Requirements for Engaged Scholars in Anthropology

Requirement information can be found on the Anthropology website: https://www.brown.edu/academics/anthropology/undergraduate-program/engaged-scholars-program

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.

<table>
<thead>
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<tr>
<td>ANTH 0800</td>
<td>Sound and Symbols: Introduction to Linguistic Anthropology</td>
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<tr>
<td>ANTH 1720</td>
<td>The Human Skeleton</td>
</tr>
<tr>
<td>Five anthropology courses of the student’s choosing. At least three of the electives must be at the 1000-level to meet the requirements of the concentration.</td>
<td></td>
</tr>
<tr>
<td>At least one non-anthropology course with a biological focus. Any course with a BIOL subject code can be used to fulfill this requirement. Students are especially encouraged to consider a course with a significant content devoted to genetics and/or evolutionary theory. This course is in addition to the nine courses required in ANTH.</td>
<td></td>
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<tr>
<td>Choose at least one course in statistics. This course is in addition to the nine courses required in ANTH. Possible courses include:</td>
<td></td>
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<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
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<tr>
<td>BIOL 0495</td>
<td>Statistical Analysis of Biological Data</td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
</tr>
<tr>
<td>PHP 1501</td>
<td>Essentials of Data Analysis</td>
</tr>
<tr>
<td>ANTH 1990</td>
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</tr>
</tbody>
</table>

Total Credits 11

1 Other courses may be substituted to meet this requirement with the permission of the DUS.

Standard program for the A.B. degree.

Prerequisites

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Five additional courses, of which four should be chosen from the 1000-level courses taught by the Division of Applied Mathematics. APMA 1910 cannot be used as an elective.

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. APMA 1910 cannot be used as an elective.
4 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:

- MATH 0090: Introductory Calculus, Part I (2 credits)
- MATH 0100: Introductory Calculus, Part II (2 credits)
- MATH 0180: Intermediate Calculus (1 credit)
- MATH 0520: Linear Algebra (2 credits)
- APMA 0350: Applied Ordinary Differential Equations (2 credits)
- APMA 0360: Applied Partial Differential Equations (2 credits)

Select one senior seminar from the APMA 1930 or APMA 1940 series, or an approved equivalent.

Select one course on programming from the following:
- APMA 0090: Introduction to Mathematical Modeling (1 credit)
- APMA 0160: Introduction to Scientific Computing (1 credit)
- CSCI 0040: Introduction to Scientific Computing and Problem Solving (1 credit)
- CSCI 0150: Introduction to Object-Oriented Programming and Computer Science (1 credit)
- CSCI 0170: Computer Science: An Integrated Introduction (1 credit)

Ten additional courses, of which six should be chosen from the 1000-level or higher level courses taught by the Division of Applied Mathematics. APMA 1910 cannot be used as an elective.

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 0350, APMA 0360 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-genomic era. Specifically, high throughput technologies have generated 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.

- MATH 0090: Introductory Calculus, Part I (1 credit)
- MATH 0100: Introductory Calculus, Part II (1 credit)
- MATH 0170: Advanced Placement Calculus (1 credit)
- MATH 0180: Intermediate Calculus (1 credit)
- MATH 0520: Linear Algebra (1 credit)
- MATH 0540: Honors Linear Algebra (1 credit)
- CHEM 0330: Equilibrium, Rate, and Structure (1 credit)
- PHYS 0030: Basic Physics A (1 credit)
- PHYS 0050: Foundations of Mechanics (1 credit)

Select one of the following sequences:

- APMA 0350: Applied Ordinary Differential Equations (1 credit)
- APMA 0360: Applied Partial Differential Equations (1 credit)
- APMA 0330: Methods of Applied Mathematics I, II (1 credit)
- APMA 0340: Methods of Applied Mathematics I, II (1 credit)
- APMA 1650: Statistical Inference I (1 credit)
- APMA 1655: Statistical Inference I (1 credit)
- APMA 1070: Quantitative Models of Biological Systems (1 credit)
- APMA 1080: Inference in Genomics and Molecular Biology (1 credit)
- BIOL 0200: The Foundation of Living Systems (1 credit)

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: 1

A course from the APMA 1930 series

A course from the APMA 1940 series.

APMA 1970: Independent Study (2 credits)

BIOL 1950: Directed Research/Independent Study (2 credits)

BIOL 1960: Directed Research/Independent Study (2 credits)

We strongly recommend that Applied Mathematics-Biology concentrators take one of the following programming courses 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. APMA 1910 cannot be used as an elective.

  - Biochemistry
    - BIOL 0280: Biochemistry
    - BIOL 1270: Advanced Biochemistry
  - Organic Chemistry
    - CHEM 0350/0360: Organic Chemistry
    - CHEM 1230: Chemical Biology
  - Biotechnology and Physiology
    - BIOL 0800: Principles of Physiology

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
and/or appropriate bioengineering courses, such as:

- BIOL 1100 Cell Physiology and Biophysics
- BIOL 1090 Polymer Science for Biomaterials
- BIOL 1120 Biometrics
- BIOL 1140 Tissue Engineering
- BIOL 1150 Stem Cell Engineering
- BIOL 1210 Synthetic Biological Systems

**Ecology, Evolution, and Genetics**

- BIOL 0410 Invertebrate Zoology
- BIOL 0410 Principles of Evolution
- BIOL 0430 & BIOL 0430 The Evolution of Plant Diversity
- BIOL 0470 Genetics
- BIOL 1420 Experimental Design in Ecology
- BIOL 1430 Population Genetics
- BIOL 1465 Human Population Genomics
- BIOL 1540 Molecular Genetics

**Neuroscience**

- APMA 0410 Mathematical Methods in the Brain Sciences

Neurosciences courses: See https://www.brown.edu/academics/neuroscience/undergraduate/neuroscience-concentration-requirements

- BIOL 1100 Cell Physiology and Biophysics
- BIOL 1110 Topics in Signal Transduction
- BIOL 1190 Synaptic Transmission and Plasticity

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**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 the course project via APMA 1970 or BIOL 1950/BIOL 1960 or similar independent study course. 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/undergraduate-research

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.

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**Applied Mathematics-Computer Science**

The Sc.B. concentration in Applied Math-Computer Science provides a foundation of basic concepts and methodology of mathematical analysis and computation and prepares students for advanced work in computer science, applied mathematics, and scientific computation. Concentrators must complete courses in mathematics, applied math, computer science, and an approved English writing course. While the concentration in Applied Math-Computer Science allows students to develop the use of quantitative methods in thinking about and solving problems, knowledge that is valuable in all walks of life, students who have completed the concentration have pursued graduate study, computer consulting and information industries, and scientific and statistical analysis careers in industry or government. 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**

- MATH 0090 & MATH 0100 Introductory Calculus, Part I
- MATH 0170 Advanced Placement Calculus

**Concentration Requirements (17 courses)**

**Core-Math:**

- MATH 0180 Intermediate Calculus 1
- MATH 0350 Honors Calculus 1
- MATH 0520 Linear Algebra 1
- MATH 0540 or MATH 0540 Honors Linear Algebra 1
- MATH 0530 or CSCI 0530 Coding the Matrix: An Introduction to Linear Algebra for Computer Science 1

**Core- Applied Mathematics:**

- APMA 0350 Applied Ordinary Differential Equations 1
- APMA 0360 Applied Partial Differential Equations 1
- APMA 1170 Introduction to Computational Linear Algebra 1
- or APMA 1180 Introduction to Numerical Solution of Differential Equations 1

**Core-Computer Science:**

Select one of the following Series:

**Series A**

- CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
- & CSCI 0160 and Introduction to Algorithms and Data Structures

**Series B**

- CSCI 0170 Computer Science: An Integrated Introduction
- & CSCI 0180 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 CS course, or a 1000-level course)

Select three of the following intermediate-level courses, one of which must be math-oriented and one systems-oriented.

- CSCI 0220 Introduction to Discrete Structures and Probability (math) 3

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For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 experience? What are these topics?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

### Applied Mathematics-Economics

The Applied Mathematics-Economics concentration is designed to reflect the mathematical and statistical nature of modern economic theory and empirical research. This concentration has two tracks. The first is the advanced economics track, which is intended to prepare students for graduate study in economics. The second is the mathematical finance track, which is intended to prepare students for graduate study in finance, or for careers in finance or financial engineering. Both tracks 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 and Applied Partial Differential Equations I 2
  
  - Select one of the following:
    - APMA 1060 Introduction to Scientific Computing (preferred)
    - CSCI 0040 Introduction to Scientific Computing and Problem Solving (preferred)
    - APMA 1650 Statistical Inference I
    - APMA 1655 or APMA 1660 Statistical Inference I

  - (b) 1
    
    - Select one of the following:
      - APMA 1200 Operations Research: Probabilistic Models
      - APMA 1210 Operations Research: Deterministic Models
      - APMA 1330 Methods of Applied Mathematics
      - APMA 1360 Applied Dynamical Systems
      - 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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ECON 1630 Mathematical Econometrics I 1
Two 1000-level courses from the “mathematical-economics” group: 4
ECON 1170 Welfare Economics and Social Choice Theory 2
ECON 1220 Monetary and Fiscal Policy 1
ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies 1
ECON 1460 Industrial Organization 1
ECON 1465 Market Design: Theory and Applications 1
ECON 1470 Bargaining Theory and Applications 1
ECON 1490 Designing Internet Marketplaces 1
ECON 1640 Econometrics II 1
ECON 1650 Financial Econometrics 1
ECON 1660 Big Data 1
ECON 1670 Advanced Topics in Econometrics 1
ECON 1740 Mathematical Finance 1
ECON 1750 Investments II 1
ECON 1759 Data, Statistics, Finance 1
ECON 1810 Economics and Psychology 1
ECON 1820 Theory of Behavioral Economics 1
ECON 1850 Theory of Economic Growth 1
ECON 1860 The Theory of General Equilibrium 1
ECON 1870 Game Theory and Applications to Economics 1
One 1000-level course from the “data methods” group: 4
ECON 1210 Economics of Education I 1
ECON 1305 Economics of Education: Research 1
ECON 1310 Labor Economics 1
ECON 1355 Environmental Issues in Development Economics 1
ECON 1360 Health Economics 1
ECON 1375 Inequality of Opportunity in the US 1
ECON 1400 The Economics of Mass Media 1
ECON 1410 Urban Economics 1
ECON 1480 Public Economics 1
ECON 1510 Economic Development 1
ECON 1520 The Economic Analysis of Institutions 1
ECON 1530 Health, Hunger and the Household in Developing Countries 1
ECON 1629 Applied Research Methods for Economists 1
ECON 1640 Econometrics II 1
ECON 1650 Financial Econometrics 1
ECON 1660 Big Data 1
ECON 1759 Data, Statistics, Finance 1
ECON 1765 Finance, Regulation, and the Economy: Research 1
One additional 1000-level economics course. 1
Total Credits 13

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1 No course may be used to simultaneously satisfy (a) and (b).
2 APMA 0330 and APMA 0340 may be substituted with advisor approval. APMA 1910 cannot be used as an elective.
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

Course Requirements:

Applied Mathematics Requirements
(a) 1
APMA 0350 & APMA 0360 Applied Ordinary Differential Equations and Applied Partial Differential Equations 1
Select one of the following:
APMA 0160 Introduction to Scientific Computing (preferred) 1
CSCI 0040 Introduction to Scientific Computing and Problem Solving (preferred) 1
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science 1
CSCI 0170 Computer Science: An Integrated Introduction 1
Select one of the following:
APMA 1200 Operations Research: Probabilistic Models 1
APMA 1210 Operations Research: Deterministic Models 1
APMA 1650 or APMA 1655 Statistical Inference I 1
APMA 1655 Statistical Inference I 1
(b) 1
Select two of the following:
APMA 1200 Operations Research: Probabilistic Models 2
APMA 1210 Operations Research: Deterministic Models 2
APMA 1330 Methods of Applied Mathematics 2
APMA 1360 Applied Dynamical Systems 2
APMA 1660 Statistical Inference II 2
APMA 1690 Computational Probability and Statistics 2
APMA 1720 Monte Carlo Simulation with Applications to Finance 2
APMA 1740 Recent Applications of Probability and Statistics 2
MATH 1010 Analysis: Functions of One Variable 2

Economics Requirements:
ECON 1130 Intermediate Microeconomics (Mathematical) 1
ECON 1210 Intermediate Macroeconomics 1
ECON 1630 Mathematical Econometrics I 1
Three 1000-level courses from the “mathematical-economics” group: 4
ECON 1170 Welfare Economics and Social Choice Theory 1
ECON 1220 Monetary and Fiscal Policy 1
ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies 1
ECON 1460 Industrial Organization 1
ECON 1465 Market Design: Monetary and Fiscal Policy 1
ECON 1470 Bargaining Theory and Applications 1
ECON 1490 Designing Internet Marketplaces 1
ECON 1640 Econometrics II 1
ECON 1650 Financial Econometrics 1
ECON 1660 Big Data 1
ECON 1670 Advanced Topics in Econometrics 1
ECON 1740 Mathematical Finance 1
ECON 1750 Investments II 1
ECON 1759 Data, Statistics, Finance 1
ECON 1810 Economics and Psychology 1

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Undergraduate Concentrations

ECON 1820 Theory of 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: 4 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

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. APMA 1910 cannot be used as an elective.
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:
  MATH 0100 Introductory Calculus, Part II
  MATH 0520 Linear Algebra

Course Requirements: 13 Courses: 6 Applied Math and 7 Economics

Applied Mathematics Requirements
(a)
APMA 0350 & APMA 0360 Applied Ordinary Differential Equations
and Applied Partial Differential Equations I 2

Select one of the following: 1
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: 1
APMA 1180 Introduction to Numerical Solution of Differential Equations
APMA 1210 Operations Research: Deterministic Models
APMA 1330 Methods of Applied Mathematics
APMA 1360 Applied Dynamical Systems
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

ECON 1010 Analysis: Functions of One Variable

Economics Requirements:
ECON 1130 Intermediate Microeconomics (Mathematical) 3 1
ECON 1210 Intermediate Macroeconomics 1
ECON 1630 Mathematical Econometrics I 1
Select two 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 Advanced Topics in Corporate Finance
ECON 1790 Corporate Governance and Management

Select one 1000-level course from the "mathematical economics" group: 1
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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 and APMA 0340 may be substituted with advisor approval. APMA 1910 cannot be used as an elective.

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 1000-level course from the "data methods" group:
- CSCI 0170: Computer Science: An Integrated Introduction
- CSCI 0150: Introduction to Object-Oriented Programming and Computer Science
- CSCI 0040: Introduction to Scientific Computing and Problem Solving (preferred)

Select two of the following:
- APMA 1180: Introduction to Numerical Solution of Differential Equations
- APMA 1210: Operations Research: Deterministic Models
- APMA 1330: Methods of Applied Mathematics
- APMA 1360: Applied Dynamical Systems
- 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

Economics Requirements:
- ECON 1130: Intermediate Microeconomics (Mathematical)
- ECON 1210: Intermediate Macroeconomics
- ECON 1630: Mathematical Econometrics I

Select three 1000-level courses from the "financial economics" group:
- ECON 1220: 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: Advanced Topics in Corporate Finance
- ECON 1790: Corporate Governance and Management

Select two 1000-level courses from the "mathematical economics" group:
- APMA 1650: Statistical Inference I
- APMA 1655: Statistical Inference I

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.

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

1. ECON 1301 Economics of Education I
2. ECON 1305 Economics of Education: Research
3. ECON 1310 Labor Economics
4. ECON 1355 Environmental Issues in Development Economics
5. ECON 1360 Health Economics
6. ECON 1400 The Economics of Mass Media
7. ECON 1410 Urban Economics
8. ECON 1510 Economic Development
9. ECON 1520 The Economic Analysis of Institutions
10. ECON 1530 Health, Hunger and the Household in Developing Countries
11. ECON 1629 Applied Research Methods for Economists
12. ECON 1640 Econometrics II
13. ECON 1650 Financial Econometrics
14. ECON 1660 Big Data
15. ECON 1759 Data, Statistics, Finance
16. ECON 1765 Finance, Regulation, and the Economy: Research

Total Credits 16

1. APMA 0330 and APMA 0340 may be substituted with advisor approval. APMA 1910 cannot be used as an elective.
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 senior year following the procedures specified by the concentration (see Economics Department website).

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.

Archaeology and the Ancient World

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. 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 inequity, 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:

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>
<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>or a course that addresses similar methodological/scientific topics, which must be approved by the concentration advisor.</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate courses could include, for example:

- ARCH 1900 The Archaeology of College Hill
- ANTH 0500 Past Forward: Discovering Anthropological Archaeology

One introductory course in ancient art history, preferably:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 0300</td>
<td>Art in Antiquity: An Introduction</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 0152</td>
<td>Egyptomania: Mystery of the Sphinx and Other Secrets of Ancient Egypt</td>
</tr>
<tr>
<td>ARCH 0360</td>
<td>East Meets West: Archaeology of Anatolia</td>
</tr>
</tbody>
</table>

One introductory ARCH course in Classical or Mediterranean-archaeology, art, and/or architecture, for example:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 0270</td>
<td>Troy Rocks! Archaeology of an Epic</td>
</tr>
<tr>
<td>ARCH 0420</td>
<td>Archaeologies of the Greek Past</td>
</tr>
</tbody>
</table>

### 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 0315</td>
<td>Heritage In and Out of Context: Museum and Archaeological Heritage</td>
</tr>
<tr>
<td>ARCH 1800</td>
<td>Contemporary Issues in Archaeological Theory</td>
</tr>
</tbody>
</table>

One ARCH course, of any level, that focuses on a part of the world OTHER than Mediterranean, Egyptian, or Near Eastern, for example:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0066U</td>
<td>An Archaeology of Native American Art</td>
</tr>
<tr>
<td>ARCH 0160</td>
<td>Buried History, Hidden Wonders: Discovering East Asian Archaeology</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1550</td>
<td>Who Owns the Classical Past?</td>
</tr>
<tr>
<td>ANTH 1720</td>
<td>The Human Skeleton</td>
</tr>
</tbody>
</table>

#### Classical Archaeology:

One course in ancient Greek or Roman history, for example:

<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>CLAS 1220</td>
<td>The Fall of Empires and Rise of Kings: Greek History 478 to 323 BC</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>
</tbody>
</table>

One course in either Ancient Greek or Latin, at a level beyond the first year of study, for example:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEK 0300/0400</td>
<td>Introduction to Greek Literature</td>
</tr>
<tr>
<td>LATN 0300/0400</td>
<td>Introduction to Latin Literature</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1490</td>
<td>The Archaeology of Central Asia: Alexander in Afghanistan, and Buddhas in Bactria</td>
</tr>
<tr>
<td>ARCH 1540</td>
<td>Cultural Heritage: The Players and Politics of Protecting the Past</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 0335</td>
<td>Archaeology of the Andes</td>
</tr>
<tr>
<td>ARCH 1170</td>
<td>Community Archaeology in Providence and Beyond</td>
</tr>
</tbody>
</table>

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):

4 + 6 + 6 + 2 + 1 = 19
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. 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 a specific track within 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0003</td>
<td>Architectural Projection (alternative IntAR Intro to Drawing)</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 0850</td>
<td>Modern Architecture</td>
</tr>
<tr>
<td>or HIAA 0860</td>
<td>Contemporary Architecture</td>
</tr>
<tr>
<td>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

<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>Constructing the Eternal City: Popes and Pilgrims in Early Modern Rome</td>
</tr>
<tr>
<td>HIAA 0770</td>
<td>Architecture and Urbanism of Africa</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>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
in stellar and extragalactic astrophysics as well as cosmology. Facilities
with mathematics and electromagnetism. They go on to complete courses
in classical mechanics, relativity, and astrophysics, along
Geology. Students pursuing this concentration complete introductory
study of the properties of stars, galaxies, and the Universe, and as such
Along with Greek, Latin, and Mathematics, Astronomy counts as one of
valid option.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
subject=Behavioral Decision Sciences) is the concentration advisor. Upon declaring, concentrators are also encouraged to speak with the appropriate area specialist from among those listed here (https://www.brown.edu/academics/cognitive-linguistic-psychological-sciences/behavioral-decision-sciences).

**Standard Program for the AB Degree**

**CLPS Classes:**

- CLPS 0220 Making Decisions 1
- Choose one of the following: 1
  - CLPS 0400 Cognitive Neuroscience
  - CLPS 0200 Human Cognition
  - CLPS 0700 Social Psychology

- Choose two of the following: 2
  - CLPS 1470 Mechanisms of Motivated Decision Making
  - CLPS 1495 Affective Neuroscience
  - CLPS 1730 Psychology in Business and Economics
  - CLPS 1760 The Moral Brain

**Distribution Requirements:**

- Select one Introductory Course from the following: 1
  - ECON 0110 Principles of Economics
  - 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
- Select Two Advanced Courses From: 2
  - CSCI 1410 Artificial Intelligence
  - CSCI 1420 Machine Learning
  - ECON 1110 Intermediate Microeconomics
  - or ECON 1130 Intermediate Microeconomics (Mathematical)
  - ECON 1660 Big Data
  - ECON 1820 Theory of Behavioral Economics
  - ECON 1870 Game Theory and Applications to Economics
  - PHIL 0580 Philosophy of Economics
  - PHIL 1550 Decision Theory: Foundations and Applications

**Methods Classes:**

- Choose One From the Following: 1
  - APMA 0650 Essential Statistics
  - APMA 1650 Statistical Inference I
  - CLPS 0900 Statistical Methods
  - CSCI 0100 Data Fluency for All
  - CSCI 1450 Probability for Computing and Data Analysis
  - ECON 1620 Introduction to Econometrics

- Plus One of the Following: 1
  - CLPS 1791 Laboratory in Social Cognition
  - CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
  - CSCI 0170 Computer Science: An Integrated Introduction
  - ECON 1629 Applied Research Methods for Economists
  - ECON 1630 Mathematical Econometrics I
  - PHIL 0540 Logic

**Electives:** 3

Students will choose three additional courses in consultation with a concentration advisor that will constitute an integrated specialization in some area of decision science. Such courses might include, but are not limited to:

**Psychology and Cognitive Science**

- CLPS 0950 Introduction to Programming
- CLPS 1292 Introduction to Programming for the Mind, Brain and Behavior
- CLPS 1370 Pragmatics
- CLPS 1970 Directed Reading in Cognitive, Linguistic and Psychological Sciences

**Economics:**

- ECON 1820 Theory of Behavioral Economics
- ECON 1870 Game Theory and Applications to Economics

**Applied Mathematics:**

- APMA 0200 Introduction to Modelling
- APMA 1690 Computational Statistics
- APMA 2640 Theory of Probability II
- APMA 2821V Neural Dynamics: Theory and Modeling

**Philosophy:**

- PHIL 0500 Moral Philosophy
- PHIL 1650 Moral Theories
- PHIL 1750 Epistemology

**Computer Science:**

- CSCI 1430 Computer Vision
- CSCI 1460 Computational Linguistics
- CSCI 1951A Data Science

**Political Science:**

- POLS 1090 Polarized Politics
- POLS 1150 Prosperity: The Ethics and Economics of Wealth Creation
- POLS 1470 International Negotiation and Conflict Resolution

**Public Health:**

- PHP 1740 Principles of Health Behavior and Health Promotion Interventions

**Capstone:**

1 Fall seminar in which students write an integrative paper or do a project covering their areas of study in their senior year.

**Total Credits** 13

1 Students may not use the same course to satisfy both the Introductory and Methods course requirements.

Students will be expected to take no more than 6 courses below the 1000-level within the concentration. Students with multiple concentrations may not apply more than 2 courses from a second concentration to the AB in Behavioral Decision Sciences. No more than 2 courses can be transferred from another institution to count toward concentration credit.

**Honors**

Students interested in honors should identify a faculty honor’s sponsor and sign up with the concentration advisor during Semester 6. Although there is no minimum grade point average to enter the program, admission to the program is limited to students who have accumulated a strong academic record, and show evidence that they will meet the program’s requirements. It is expected that honors candidates will conduct a year-long research project under the direction of a faculty sponsor culminating in a written thesis at the end of Semester 8. Honors theses can serve to satisfy the capstone requirement, although honors students are expected to attend the capstone seminar in the fall of their senior year.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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
Two courses in physics, typically:  2
  - PHYS 0030 Basic Physics A
  - or PHYS 0050 Foundations of Mechanics
  - or ENGN 0030 Introduction to Engineering
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
Four courses in biochemistry:  4
  - BIOL 0280 Biochemistry
  - BIOL 0285 Inquiry in Biochemistry: From Gene to Protein Function
  - BIOL 1270 Advanced Biochemistry
  - or 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 five courses from the chart below or, with approval from a concentration advisor, from any science or mathematics course relevant to biochemistry, cell and molecular biology.  5

<table>
<thead>
<tr>
<th>Biology Electives:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
</tr>
<tr>
<td>BIOL 0380</td>
<td>The Ecology and Evolution of Infectious Disease</td>
</tr>
<tr>
<td>BIOL 0415</td>
<td>Microbes in the Environment</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>Biology of the Eukaryotic Cell</td>
</tr>
<tr>
<td>BIOL 1090</td>
<td>Polymer Science for Biomaterials</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
</tr>
<tr>
<td>BIOL 1110</td>
<td>Topics in Signal Transduction</td>
</tr>
<tr>
<td>BIOL 1200</td>
<td>Protein Biophysics and Structure</td>
</tr>
<tr>
<td>BIOL 1210</td>
<td>Synthetic Biological Systems</td>
</tr>
<tr>
<td>BIOL 1260</td>
<td>Physiological Pharmacology</td>
</tr>
<tr>
<td>BIOL 1290</td>
<td>Cancer Biology</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIOL 1330</td>
<td>Biology of Reproduction</td>
</tr>
<tr>
<td>BIOL 1520</td>
<td>Innate Immunity</td>
</tr>
<tr>
<td>BIOL 1540</td>
<td>Molecular Genetics</td>
</tr>
<tr>
<td>BIOL 1560</td>
<td>Virology</td>
</tr>
<tr>
<td>BIOL 1600</td>
<td>Development of Vaccines to Infectious Diseases</td>
</tr>
<tr>
<td>BIOL 2110</td>
<td>Drug and Gene Delivery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neuroscience Electives:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
</tr>
<tr>
<td>NEUR 0650</td>
<td>Biology of Hearing</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
</tr>
<tr>
<td>NEUR 1040</td>
<td>Introduction to Neurogenetics</td>
</tr>
<tr>
<td>NEUR 1670</td>
<td>Neuropsycharmacology and Saptic Transmission</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemistry Electives:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0500</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and Statistical Mechanics</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>Computational Tools in Biochemistry and Chemical Biology</td>
</tr>
<tr>
<td>CHEM 1230</td>
<td>Chemical Biology</td>
</tr>
<tr>
<td>CHEM 1240</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>CHEM 1450</td>
<td>Advanced Organic Chemistry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Computer Science Electives:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1810</td>
<td>Computational Molecular Biology</td>
</tr>
</tbody>
</table>

Total Credits 20

1 Note that the mathematics and physics requirements may be satisfied by Advanced Placement credit.
2 BIOL 0285 is required for the class of 2022 onward. Students in the classes of 2019-2021 are required to take only three courses in biochemistry yet may take BIOL 0285 as an elective.
3 Students in the classes of 2019-2021 are required to take six electives. The five elective requirement applies to the class of 2022 and after.
4 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.

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I (or placement, MATH 0050/MATH 0060 may be substituted for MATH 0090.)</td>
</tr>
</tbody>
</table>

One of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or placement)</td>
</tr>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus (or equivalent placement)</td>
</tr>
</tbody>
</table>

Or a statistics course, to be approved by the concentration advisor.

**Ten Core Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
</tr>
<tr>
<td></td>
<td>(Required course; AP credit or similar IB or A-levels accepted, placement test available.)</td>
</tr>
</tbody>
</table>

The Area requirement must be fulfilled by taking at least one course in each of these groups:

**Area 1 (Cell/Molecular Biology)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0280</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 0510</td>
<td>Introductory Microbiology</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
</tr>
<tr>
<td>BIOL 0810</td>
<td>Applied Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>Biology of the Eukaryotic Cell</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIOL 1515</td>
<td>Conservation in the Genomics Age</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
</tr>
</tbody>
</table>

**Area 2 (Structure/Function)**

<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 0410</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction and Adaptive Responses</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1120</td>
<td>Biomaterials</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIOL 1330</td>
<td>Biology of Reproduction</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>

**Area 3 (Organismal Biology)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0210</td>
<td>Diversity of Life</td>
</tr>
<tr>
<td>BIOL 0350</td>
<td>The Fossil Record: Life through Time on Earth</td>
</tr>
<tr>
<td>BIOL 0380</td>
<td>The Ecology and Evolution of Infectious Disease</td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
</tr>
<tr>
<td>BIOL 0430</td>
<td>The Evolution of Plant Diversity</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 1480</td>
<td>Terrestrial Biogeochemistry and the Functioning of Ecosystems</td>
</tr>
<tr>
<td>BIOL 1515</td>
<td>Conservation in the Genomics Age</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>ENVS 0490</td>
<td>Environmental Science in a Changing World</td>
</tr>
</tbody>
</table>

Six additional courses chosen from BIOL and/or NEUR offerings for concentrators. The Core may include up to two related sciences, with advisor approval. The Core must also include a Senior Capstone.

**SENIOR CAPSTONE:** "Only applies to students who have declared in Fall 2019 or later." To be fulfilled via ONE of the following:

1. One of the following approved courses: BIOL 1100, 1250, 1515, 1555, 1565, 1575, 1600, 1820, 1970.
2. One semester of independent research/independent study (BIOL 1950 or BIOL 1960).
3. A senior Honors thesis in Biology; Students can register for BIOL 1950 or BIOL 1960 or both.

Please visit the BUE webpage for more information.

**Total Credits:** 10

1. AP scores of 4 or 5 may substitute Math courses.
2. Biology courses for concentration credit include those numbered between 0100 - 2999. Exclusions: BIOL 1920 series courses can only be used as related sciences and do not fulfill advanced course requirements.
3. At least two biology and/or neuroscience courses must be at the advanced level (between 1000-2999). Senior Capstone can be used towards one advanced requirement. 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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
No substitutions per above Area list. If a course is listed in more than one area, it may be used to fulfill one area only; the other area must be fulfilled by a different course.

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)

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.

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 ENGR 0030 may be substituted for PHYS 0030.)

PHYS 0040 Basic Physics B (or equivalent. PHYS 0060 or ENGR 0040 may be substituted for PHYS 0040.)

Core Courses:

BIOL 0200 The Foundation of Living Systems (or placement)

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 0810 Applied Cell and Molecular Biology

BIOL 1050 Biology of the Eukaryotic Cell

BIOL 1310 Developmental Biology

BIOL 1515 Conservation in the Genomics Age

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 1800 Animal Locomotion

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 0420 Principles of Ecology

BIOL 0430 The Evolution of Plant Diversity

BIOL 0480 Evolutionary Biology

BIOL 1515 Conservation in the Genomics Age

BIOL 1480 Terrestrial Biogeochemistry and the Functioning of Ecosystems

BIOL 1800 Animal Locomotion

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. The Core may include up to two related sciences, with advisor approval. The Core must also include research.

RESEARCH:

Typically, two courses in Core are advanced level research (BIOL 1950, 1960).

TRACK:

The Track consists of three additional biological sciences courses (not including BIOL 1950/1960 research) that form a Track. Tracks include: Immuno/Pathobiology; Ecology and Evolutionary Biology; Physiology and Biotechnology; Neurobiology; Physical Sciences; Marine Biology; Cell and Molecular Biology. At least two track courses, and preferably all three, must be above 1000-level. Track courses should form a cohesive grouping approved by an advisor and/or Associate Dean of Biology, Katherine Smith.

Total Credits 13

1 AP scores of 4 or 5 may substitute Math courses.

2 Biology courses for concentration credit include those numbered between 0100-2999. Exclusions: BIOL 1920 series courses can only be used as related sciences and do not fulfill advanced course requirements.

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


3 At least two biology and/or neuroscience courses must be at the advanced level (between 1000-2999). At least three of the biology and/or neuroscience courses must include laboratory or fieldwork. BIOL 1950/BIOL 1960 can count for one of the three lab course requirements and one advanced course.

4 No substitutions per above Area list. If a course is listed in more than one area, it may be used to fulfill one area only; the other area must be fulfilled by a different course.

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.

**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/](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/](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 ABET (1) - (7) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs (available online at [http://www.abet.org/accreditation-criteria-policies-documents/](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 courses in biology and chemistry, and a somewhat different emphasis in mathematics.

### Standard program for the Sc.B. degree

#### 1. Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</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 0510</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
<tr>
<td>or 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>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>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>or MATH 0100</td>
<td>Introductory Calculus, Part II</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 1650</td>
<td>Statistical Inference I</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 0650</td>
<td>Essential Statistics</td>
<td>1</td>
</tr>
<tr>
<td>or BIOL 0200</td>
<td>The Foundation of Living Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

#### 2. Upper Level Biomedical Engineering Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1110</td>
<td>Transport and Biotransport Processes</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1210</td>
<td>Biomechanics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1230</td>
<td>Instrumentation Design</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1490</td>
<td>Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
<td>1</td>
</tr>
</tbody>
</table>

#### 3. Additional Biomedical Engineering Electives (Complete at least 3 courses from the following groups):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1220</td>
<td>Neuroengineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1510</td>
<td>Nanoengineering and Nanomedicine</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1520</td>
<td>Cardiovascular Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1930B</td>
<td>Biomedical Optics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1931K</td>
<td>Cell-Material Interactions in Tissue Engineering</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1140</td>
<td>Tissue Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 2910S</td>
<td>Cancer Nanotechnology</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 2912R</td>
<td>Implantable Devices</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1820</td>
<td>Algorithmic Foundations of Computational Biology</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 2911R</td>
<td>Analytical Modeling for Biomechanical and Biomedical Systems</td>
<td>1</td>
</tr>
</tbody>
</table>

At least one or two more courses from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Biochemistry</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 1090</td>
<td>Polymer Science for Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1150</td>
<td>Stem Cell Engineering</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1555</td>
<td>Methods in Informatics and Data Science for Health</td>
<td>1</td>
</tr>
<tr>
<td>APMA 1070</td>
<td>Quantitative Models of Biological Systems</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1520</td>
<td>Computational Vision</td>
<td>1</td>
</tr>
<tr>
<td>or CLPS 1590</td>
<td>Visualizing Vision</td>
<td>1</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
<td>1</td>
</tr>
<tr>
<td>NEUR 1440</td>
<td>Mechanisms and Meaning of Neural Dynamics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1610</td>
<td>Biological Physics</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 2910G</td>
<td>Topics in Translational Research and Technologies</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 2010</td>
<td>Quantitative Approaches to Biology</td>
<td>1</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu ([https://cab.brown.edu](https://cab.brown.edu)).
**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 capstone research 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](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** Foundations of Mechanics and Foundations of Electromagnetism and Modern Physics
- **PHYS 0070** Analytical Mechanics and Introduction to Relativity, Waves and Quantum Physics
- **PHYS 0470** Electricity and Magnetism
- **CHEM 0330** Equilibrium, Rate, and Structure
- **CHEM 0350** Organic Chemistry
- **CHEM 0360** Organic Chemistry

Select one of the following:

- **CHEM 0400** Biophysical and Bioinorganic Chemistry
- **CHEM 1140** Physical Chemistry: Quantum Chemistry
- **PHYS 1530** Thermodynamics and Statistical Mechanics
- **PHYS 1610** Biological Physics

**Cell Biology**

- **BIOL 0500** Cell and Molecular Biology
- **BIOL 1050** Biology of the Eukaryotic Cell
- **BIOL 1200** Protein Biophysics and Structure

**Physiology**

- **BIOL 0800** Principles of Physiology
- **BIOL 1100** Cell Physiology and Biophysics

**Pharmacology**

- **BIOL 1950** Synaptic Transmission and Plasticity
- **NEUR 1020** Principles of Neurobiology

**Physics**

- **PHYS 1410** Quantum Mechanics A
- **PHYS 1420** Quantum Mechanics B
- **PHYS 1610** Biological Physics

**Chemistry**

- **CHEM 1230** Chemical Biology
- **CHEM 1450** Advanced Organic Chemistry

A course from the CHEM 1560 series.

Select at least one semester (two are recommended) of Directed Research

**Business, Entrepreneurship and Organizations**

Business, Entrepreneurship and Organizations (BEO) is a multidisciplinary concentration that provides a rigorous and synergistic program in the study of commercial activity grounded in economics, sociology and engineering. BEO focuses on the formation, growth, and organization of new ventures, innovation in commercial applications, financial markets and the marketplace, and management and organizational theory. Concentrators seek to understand the basic principles, approaches and vocabulary relevant to the study of entrepreneurship from the disciplines of economics, organizational sociology and engineering. Building on this multidisciplinary base, students develop specialized expertise in one of the three disciplinary approaches, with special emphasis on critical reasoning and quantitative research methods. In senior year capstone projects, students apply and integrate multi-disciplinary learning by working in groups on real world projects, including the creation of new ventures. BEO students interested in the theory and practice of addressing...

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>
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<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
<td>1</td>
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<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
<td>1</td>
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<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></td>
</tr>
<tr>
<td>ENGN 1010</td>
<td>The Entrepreneurial Process: Innovation in Practice</td>
<td>1</td>
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Math and Statistics Requirements

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part I</td>
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<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
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<tr>
<td>or ECON 0170</td>
<td>Essential Mathematics for Economics</td>
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</tr>
<tr>
<td>or AP BC Calculus score of 4 or higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or IB High-level Math minimum score of 5 (IB Standard-level not accepted)</td>
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</tbody>
</table>

<table>
<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>
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Track Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<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 1629</td>
<td>Applied Research Methods for Economists</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>
<tr>
<td>One 1000-level economics course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capstone: one-semester required (must be taken fall of senior year)</td>
<td>1</td>
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BEO 1930C</td>
<td>BEO Capstone I: Business Economics Track</td>
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</table>

Total Credits 15

(Effective for graduating classes through 2020)

<table>
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<tr>
<th>Course Code</th>
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<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
<td>1</td>
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<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>
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<tr>
<td>SOC 1315</td>
<td>Macro-Organizational Theory: Organizations in Social Context</td>
<td>1</td>
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<tr>
<td>ENGN 0020</td>
<td>Transforming Society-Technology and Choices for the Future</td>
<td>1</td>
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<tr>
<td>or ENGN 0030</td>
<td>Introduction to Engineering</td>
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Math and Statistics Requirements

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<th>Course Title</th>
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<tbody>
<tr>
<td>ECON 1301</td>
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<tr>
<td>ECON 1305</td>
<td>Economics of Education: Research</td>
<td>1</td>
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<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>
<tr>
<td>ECON 1400</td>
<td>The Economics of Mass Media</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1420</td>
<td>Urbanization in China</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1480</td>
<td>Public Economics</td>
<td>1</td>
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<tr>
<td>ECON 1510</td>
<td>Economic Development</td>
<td>1</td>
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<tr>
<td>ECON 1520</td>
<td>The Economic Analysis of Institutions</td>
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<td>ECON 1530</td>
<td>Health, Hunger and the Household in Developing Countries</td>
<td>1</td>
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<tr>
<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
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<td>ECON 1630</td>
<td>Mathematical Econometrics I</td>
<td>1</td>
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<tr>
<td>ECON 1640</td>
<td>Econometrics II</td>
<td>1</td>
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<tr>
<td>ECON 1650</td>
<td>Financial Econometrics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1660</td>
<td>Big Data</td>
<td>1</td>
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<tr>
<td>ECON 1759</td>
<td>Data, Statistics, Finance</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1765</td>
<td>Finance, Regulation, and the Economy: Research</td>
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</tr>
<tr>
<td>One 1000-level economics course, including a second data methods intensive course from the list above</td>
<td>1</td>
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<tr>
<td>Capstone: one-semester required (must be taken fall of senior year)</td>
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<tr>
<td>ECON 1930C</td>
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</table>

Total Credits 15

1 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)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ECON 0110</td>
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<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
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<tr>
<td>ENGN 0020</td>
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Math and Statistics Requirements

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<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECON 0710</td>
<td>Financial Accounting</td>
<td>1</td>
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<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>
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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       |

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BEO 1930C</td>
<td>BEO Capstone I: Business Economics Track</td>
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</tr>
</tbody>
</table>

Total Credits 15

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### Coursework

Phenomena and perspectives into a significant portion of its entrepreneurship, and it should incorporate organizational activities and outcomes. To qualify for this list, a course should have a clear linkage to commerce, organizations and/or organizational processes and phenomena.

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 phenomena and perspectives introduced by the foundational Organization 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.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENGN 1010</td>
<td>The Entrepreneurial Process: Innovation in Practice</td>
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<tr>
<td>Plus two of the following:</td>
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<tr>
<td>SOC 0300</td>
<td>Organizations and Society</td>
<td></td>
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<tr>
<td>SOC 1311</td>
<td>Micro-Organizational Theory: Social Behavior in Organizations</td>
<td></td>
</tr>
<tr>
<td>SOC 1315</td>
<td>Macro-Organizational Theory: Organizations in Social Context</td>
<td></td>
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<tr>
<td><strong>Math and Statistics Requirements</strong></td>
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<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
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<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
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<tr>
<td>or ECON 0170</td>
<td>Essential Mathematics for Economics</td>
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<tr>
<td>Or AP BC Calculus with a score of 4 or higher</td>
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<tr>
<td>Or IB High-level Math with a minimum score of 5 (IB Standard-level is not accepted)</td>
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<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
<td>1</td>
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<tr>
<td>or APMA 0650</td>
<td>Essential Statistics</td>
<td></td>
</tr>
<tr>
<td>or ECON 1620</td>
<td>Introduction to Econometrics</td>
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<tr>
<td><strong>Track Requirements</strong></td>
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<tr>
<td>One Introduction to Research Methods course (selected from the following):</td>
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<tr>
<td>SOC 1020</td>
<td>Methods of Social Research</td>
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<tr>
<td>SOC 1050</td>
<td>Methods of Research in Organizations</td>
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<tr>
<td>Two Organization-Relevant Electives (OREs) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):</td>
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<tr>
<td>Any from the Advanced Research Methods or Advanced Organization-Studies lists; or</td>
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<tr>
<td>ECON 1760</td>
<td>Financial Institutions</td>
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<tr>
<td>EDUC 1020</td>
<td>The History of American Education</td>
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<tr>
<td>EDUC 1040</td>
<td>Sociology of Education</td>
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<tr>
<td>EDUC 1060</td>
<td>Politics and Public Education</td>
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<tr>
<td>EDUC 1150</td>
<td>Education, the Economy and School Reform</td>
<td></td>
</tr>
<tr>
<td>EDUC 1200</td>
<td>History of American School Reform</td>
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<tr>
<td>EDUC 1650</td>
<td>Policy Implementation in Education</td>
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<tr>
<td>EDUC 1730</td>
<td>American Higher Education in Historical Context</td>
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<tr>
<td>PHP 2400</td>
<td>The U.S. Health Care System: Case Studies in Financing, Delivery, Regulation and Public Health</td>
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<tr>
<td>PLCY 1701Q</td>
<td>Leading Social Ventures - Social Entrepreneurship in Action</td>
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<td>PLCY 1800</td>
<td>Investigating Modes of Social Change</td>
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<tr>
<td>PLCY 1910</td>
<td>Social Entrepreneurship</td>
<td></td>
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<tr>
<td>PLCY 2150</td>
<td>Strategic Communication</td>
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<tr>
<td>PLCY 2655</td>
<td>Regulation and Compliance</td>
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<tr>
<td>POLS 1150</td>
<td>Prosperity: The Ethics and Economics of Wealth Creation</td>
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<td>POLS 1240</td>
<td>Politics, Markets and States in Developing Countries</td>
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<tr>
<td>SOC 1114</td>
<td>Law and Society</td>
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<tr>
<td>SOC 1115</td>
<td>The Enlightened Entrepreneur: Changemakers, Inspired Protagonists and Unreasonable People</td>
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<tr>
<td><strong>SOC 1871C</strong></td>
<td>Sociology of the Legal Profession</td>
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<tr>
<td>One Advanced Organization Studies course (AOS) (the following are approved EXAMPLES-please consult with Courses@Brown/BEO website for current offerings):</td>
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<td></td>
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<tr>
<td>AOS courses directly employ and extend the theories and perspectives introduced by the foundational Organization 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.</td>
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<tr>
<td>CLPS 1730</td>
<td>Psychology in Business and Economics</td>
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<td>ECON 1790</td>
<td>Corporate Governance and Management</td>
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<td>MPA 2020</td>
<td>Public Budgeting and Management</td>
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<tr>
<td>PLCY 1700V</td>
<td>Nonprofit Organizations</td>
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<td>PLCY 1700Y</td>
<td>Crisis Management</td>
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<tr>
<td>PLCY 2350</td>
<td>Thinking, Planning and Acting Strategically</td>
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<tr>
<td>SOC 1060</td>
<td>Leadership in Organizations</td>
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<tr>
<td>SOC 1870A</td>
<td>Investing in Social Change</td>
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<tr>
<td>SOC 1870L</td>
<td>The Economic Foundations of Everyday Life</td>
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<tr>
<td>SOC 1871O</td>
<td>Law, Innovation and Entrepreneurship</td>
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<tr>
<td>SOC 1872H</td>
<td>Sociology of FIRE: Finance, Insurance, + Real Estate</td>
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<tr>
<td><strong>Track Requirements</strong></td>
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<tr>
<td>One Advanced Research Methods course (ARM) (the following are approved examples-please consult with Courses@Brown/BEO website for current offerings):</td>
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<tr>
<td>ARM courses allow students to deepen and/or broaden their expertise in one or more methods of empirical inquiry.</td>
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<tr>
<td>ANTH 1940</td>
<td>Ethnographic Research Methods</td>
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<tr>
<td>ECON 1630</td>
<td>Mathematical Econometrics I</td>
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<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
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<tr>
<td>PLCY 1200</td>
<td>Program Evaluation</td>
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<tr>
<td>MPA 2035</td>
<td>Statistics II for Public Policy Analysis</td>
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<tr>
<td>MPA 2040</td>
<td>Statistics for Program Evaluation</td>
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<tr>
<td>PLCY 2050</td>
<td>Program Evaluation</td>
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<td>SOC 1117</td>
<td>Focus Groups for Market and Social Research</td>
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<td>SOC 1118</td>
<td>Context Research for Innovation</td>
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<tr>
<td>SOC 1120</td>
<td>Market and Social Surveys</td>
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<td>SOC 1127</td>
<td>EPIC: Ethnographic Praxis in Industry</td>
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<tr>
<td>SOC 1260</td>
<td>Market Research in Public and Private Sectors</td>
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<tr>
<td>SOC 1340</td>
<td>Principles and Methods of Geographic Information Systems</td>
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<td><strong>Capstone: two-semesters required</strong></td>
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<tr>
<td>BEO 1930A</td>
<td>BEO Capstone I: Organizational Studies Track</td>
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<tr>
<td>&amp; BEO 1940A</td>
<td>BEO Capstone II: Organizational Studies Track</td>
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<tr>
<td>Total Credits</td>
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</table>

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)

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<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
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<td>ENGN 0020</td>
<td>Transforming Society-Technology and Choices for the Future</td>
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<td>or ENGN 0030</td>
<td>Introduction to Engineering</td>
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</tr>
<tr>
<td>ENGN 1010</td>
<td>The Entrepreneurial Process: Innovation in Practice</td>
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Plus two of the following:

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<tr>
<td>SOC 0300</td>
<td>Organizations and Society</td>
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<tr>
<td>SOC 1311</td>
<td>Micro-Organizational Theory: Social Behavior in Organizations</td>
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<td>SOC 1315</td>
<td>Macro-Organizational Theory: Organizations in Social Context</td>
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### Math and Statistics Requirements

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
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<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
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<tr>
<td>or APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>or ECON 1620</td>
<td>Introduction to Econometrics</td>
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### Track Requirements

One Introduction to Research Methods course (selected from the following):

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<td>Methods of Social Research</td>
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<tr>
<td>SOC 1050</td>
<td>Methods of Research in Organizations</td>
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</tbody>
</table>

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

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<tr>
<th>Course Code</th>
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<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>
</tbody>
</table>

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.

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<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 1701Q</td>
<td>Labor Market Policy</td>
</tr>
<tr>
<td>PLCY 1800</td>
<td>Leading Social Ventures - Social Entrepreneurship in Action</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 2655</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 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</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>Mathematical 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>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Entrepreneurship and Technology Management Track

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 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 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>or APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
<td></td>
</tr>
<tr>
<td>or APMA 0650</td>
<td>Essential Statistics</td>
<td>1</td>
</tr>
<tr>
<td>or ECON 1620</td>
<td>Introduction to Econometrics</td>
<td></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>BEO 1930A</td>
<td>BEO Capstone I: Organizational Studies Track</td>
<td>1-2</td>
</tr>
<tr>
<td>&amp; BEO 1940A</td>
<td>BEO Capstone II: Organizational Studies Track</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 14-15

1 Or an optional two-semester capstone from the BEO 1930 and 1940 series

Chemical Physics

Chemical Physics is an interdisciplinary field at the crossroads of chemistry and physics and is administered jointly by the two departments. The concentration provides students with a broad-based understanding in fundamental molecular sciences, as well as a background for graduate studies in physical chemistry, chemical physics, or molecular engineering. Concentrators are required to take twenty courses in chemistry, physics, and mathematics, although approved courses in applied mathematics, biology, computer science, geological sciences, or engineering may be substitutes. Chemical Physics concentrators are also advised to take at least six courses in the humanities and social sciences. Chemical Physics concentrators at all levels (first-year through seniors) are actively involved in research with faculty members 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:

<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>CHEM 0350</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>PHYS 0070</td>
<td>Analytical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity, Waves and Quantum Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1160</td>
<td>Physical Chemistry Laboratory</td>
<td></td>
</tr>
<tr>
<td>PHYS 0560</td>
<td>Experiments in Modern Physics</td>
<td></td>
</tr>
<tr>
<td>PHYS 1560</td>
<td>Modern Physics Laboratory</td>
<td></td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and Statistical Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
<td></td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
</tbody>
</table>

Seven courses, primarily at the 1000 or 2000 level, in chemistry or physics.

Select two semesters of independent study:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0970/0980</td>
<td>Undergraduate Research</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 21

1 Other approved courses in applied mathematics, biology, computer science, geological sciences, or engineering may be substituted for some of the twenty-one. Students are advised to take at least six courses in the humanities and social sciences.

Honors Requirements for Chemical Physics

All ScB Chemical Physics concentrators who completes the following requirements are candidates for Honors; no separate application is necessary.

The requirements for Honors in Chemical Physics are:

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
The required/recommended courses for the three tracks are given below.

Concentrating in Chemistry – Three tracks
required for the concentration will be taken for a letter grade.

nanoscience and materials science. The expectation is that courses
students who have a strong interest in the interface of chemistry with
of chemistry with biology. The Materials Chemistry track is designed for
track is designed for students who have a strong interest in the interface
– your degree will still be an Sc.B. in Chemistry. The Chemical Biology
Concentration – a Chemistry track, a Chemical Biology track and a
The Chemistry Department offers three tracks for the Sc.B. Chemistry
Standard program for the A.B. degree

CHEM 0330 Equilibrium, Rate, and Structure 1
CHEM 0350 Organic Chemistry 1
CHEM 0360 Organic Chemistry 1
CHEM 0500 Inorganic Chemistry 1
CHEM 0970 Undergraduate Research 1
CHEM 0980 Undergraduate Research 1
CHEM 1140 Physical Chemistry: Quantum Chemistry 1
CHEM 1150 Physical Chemistry: Thermodynamics and Statistical Mechanics 1
CHEM 1160 Physical Chemistry Laboratory 1
MATH 0180 or equivalent 3 1
Two Physics courses 2
Seven electives (at least three must be in Chemistry) 1 7
Total Credits 19

Chemical Biology Track:

CHEM 0330 Equilibrium, Rate, and Structure 1
CHEM 0350 Organic Chemistry 1
CHEM 0360 Organic Chemistry 1
CHEM 0500 Inorganic Chemistry 1
CHEM 0970 Undergraduate Research 1
CHEM 0980 Undergraduate Research 1
CHEM 1140 Physical Chemistry: Quantum Chemistry 1
CHEM 1230 Chemical Biology 1
CHEM 1240 Biochemistry 1
BIOL 0280 Biochemistry 1
MATH 0180 or equivalent 3 1
Two Physics courses 2
Select three of the following: 4 3
BIOL 0470 Genetics
BIOL 0500 Cell and Molecular Biology
BIOL 0510 Introductory Microbiology
BIOL 0530 Principles of Immunology
BIOL 0800 Principles of Physiology
NEUR 1020 Principles of Neurobiology
Three other electives 1 3
Total Credits 19

Materials Chemistry Track:

CHEM 0330 Equilibrium, Rate, and Structure 1
CHEM 0350 Organic Chemistry 1
CHEM 0360 Organic Chemistry 1
CHEM 0500 Inorganic Chemistry 1
CHEM 0970 Undergraduate Research 1
CHEM 0980 Undergraduate Research 1
CHEM 1060 Advanced Inorganic Chemistry 2 1
CHEM 1140 Physical Chemistry: Quantum Chemistry 1
CHEM 1150 Physical Chemistry: Thermodynamics and Statistical Mechanics 2
CHEM 1700 Nanoscale Materials: Synthesis and Applications 1
MATH 0180 or equivalent 3 1
Two Physics courses 2 2
BIOL 1090 Polymer Science for Biomaterials 1
Five electives, at least two must be chemistry courses 1 5
Total Credits 19

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
BIOL 0280 is credited as a chemistry elective for the chemistry concentration. Non CHEM electives are upper level science/math courses with a significant molecular focus or those that cover tools/techniques that are of utility to a chemist. You should discuss your elective choices with the Concentration Advisor to craft a course of study that is appropriate for your interests.

For students with a more Engineering bent, the following substitutions can be made - ENGR 0030/ENGR 0040 can be substituted for PHYS; ENGR 0410 can be substituted for CHEM 1060; ENGR 0720 for CHEM 1150.

NOTE: MATH 0180 has additional prerequisites.

NOTE: Many of the BIOL courses have BIOL 0200 as a prerequisite.

In each of these cases, CHEM 0970/CHM 0980 should be carried out with a faculty member with an appointment in the Chemistry Department. Research with faculty advisors outside Chemistry may be allowed in some special cases. In this event, the student should a) prepare a proposal for the research to be carried out and b) identify a faculty member in the Chemistry Department who will serve as a second advisor and the second reader for the thesis.

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

The study of Classics focuses on the languages, literature, history, culture, and legacy of Greco-Roman antiquity. An undergraduate concentration in Classics furnishes students with a broad liberal education, and provides specialized training for those students intending to enter graduate school. Students may choose to study Ancient Greek, Latin, Sanskrit, and/or Modern Greek, and to explore courses in literature, mythology, history, philosophy, and religion. Students may either pursue the standard Classics concentration – the most popular choice – or one of several optional tracks: Greek, Latin, Greek and Latin, South Asian Classics, Sanskrit, Greek and Sanskrit, or Latin and Sanskrit. Concentrators who pursue an honors degree write a senior thesis, typically over the course of two semesters during their senior year.

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.  
Select one of the following series:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 1210</td>
<td>Mediterranean Culture Wars: Archaic Greek History, c. 1200 to 479 BC</td>
<td>1</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.

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: 9

Greek

Four Greek courses on the 1000-level or above, at least one of which is to be:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREEK 1110</td>
<td>Greek Literature Survey to 450 BCE</td>
<td>1</td>
</tr>
<tr>
<td>or GREEK 1111</td>
<td>Greek Literature Survey after 450 BCE</td>
<td>1</td>
</tr>
</tbody>
</table>

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: 9

Or

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</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>
<td>1</td>
</tr>
<tr>
<td>or HIST 1200B</td>
<td>The Fall of Empires and Rise of Kings: Greek History to 478 to 323 BCE</td>
<td>1</td>
</tr>
</tbody>
</table>

And

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 1310</td>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
<td>1</td>
</tr>
<tr>
<td>or HIST 1201B</td>
<td>Roman History II: The Roman Empire and Its Impact</td>
<td>1</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cabsbrown.edu).
Latin

Four Latin courses on the 1000-level or above, at least one of which is to be:

<table>
<thead>
<tr>
<th>Course</th>
<th>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>
</tbody>
</table>

One further course offered by the Department of Classics and designated “Classics and Beyond,” OR a DIAP course offered by the Department of Classics.

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.

Total Credits 9

---

Greek and Latin

Four Latin courses on the 1000-level or above, at least one of which is to be:

<table>
<thead>
<tr>
<th>Course</th>
<th>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>
</tbody>
</table>

Four Greek courses on the 1000-level or above, at least one of which is to be:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GREK 1810</td>
<td>Greek Literature Survey to 450 BCE</td>
</tr>
<tr>
<td>or GREK 1820</td>
<td>Greek Literature Survey after 450 BCE</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 HIST 1200B</td>
<td>The Fall of Empires and Rise of Kings: Greek History to 478 to 323 BCE</td>
</tr>
<tr>
<td>CLAS 1310</td>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
</tr>
</tbody>
</table>

Total Credits 9

---

Sanskrit

Two Sanskrit courses at the 1000-level or above

Three of the Sanskrit Classics Courses in Translation

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 9

---

South Asian Classics

At least one Sanskrit course above Sanskrit 0300

Three of the Sanskrit Classics Courses in Translation

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 9

---

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### Greek and Sanskrit

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek Literature Survey to 450 BCE</td>
<td>4</td>
</tr>
<tr>
<td>Mediterranean Culture Wars: Archaic Greek History</td>
<td>4</td>
</tr>
<tr>
<td>The Fall of Empires and Rise of Kings: Greek History</td>
<td>1</td>
</tr>
<tr>
<td>The Fall of Empires and Rise of Kings: Greek History</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits: 12

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<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Republican Literature</td>
<td>4</td>
</tr>
<tr>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
<td>1</td>
</tr>
<tr>
<td>Roman History II: The Roman Empire and Its Impact</td>
<td>1</td>
</tr>
<tr>
<td>Roman History II: The Empire</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits: 12

---

### Latin and Sanskrit

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey of Republican Literature</td>
<td>4</td>
</tr>
<tr>
<td>Roman History I: The Rise and Fall of an Imperial Republic</td>
<td>1</td>
</tr>
<tr>
<td>Roman History II: The Roman Empire and Its Impact</td>
<td>1</td>
</tr>
<tr>
<td>Roman History II: The Empire</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Credits: 12

---

### Honors

Students may earn honors in the concentration by presenting a satisfactory thesis, for the preparation of which they will ordinarily enroll in the relevant 1990 courses; these courses may not be used to satisfy the standard requirements for the concentration. (Effective Class of 2019)

---

### 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 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.

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### 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 academic 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 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 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0010</td>
<td>Mind, Brain and Behavior: An Interdisciplinary Approach</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
<td>1</td>
</tr>
<tr>
<td>One approved course in Cognitive Neuroscience, such as:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CLPS 0400</td>
<td>Cognitive Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CLPS 0450</td>
<td>Brain Damage and the Mind</td>
<td></td>
</tr>
<tr>
<td>One approved course in Neuroscience, such as:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
<td></td>
</tr>
<tr>
<td>One approved course in Cognitive Neuropsychology, such as:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CLPS 0450</td>
<td>Brain Damage and the Mind</td>
<td></td>
</tr>
<tr>
<td>CLPS 1420</td>
<td>Cognitive Neuropsychology</td>
<td></td>
</tr>
<tr>
<td>One approved course in Computational Methods, such as:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CLPS 0950</td>
<td>Introduction to programming</td>
<td></td>
</tr>
<tr>
<td>CLPS 1291</td>
<td>Computational Methods for Mind, Brain and Behavior</td>
<td></td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Concentration credit of AP Statistics, regardless of score. Students for most of the laboratory courses, so concentrators should plan to take Careers in Cognitive Science and related fields requires familiarity with common commitments, and successful techniques and approaches. The science of the mind, focusing on fascinating questions, garnered insights, represented by our department. The course maps the breadth of the surveys the broad territory of the scientific study of the mind, as uniquely The introductory course, "Common Core

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 up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Requirements for the Sc.B. degree

STANDARD PROGRAM FOR THE Sc.B. DEGREE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
</tr>
<tr>
<td>One approved course in Human Cognition, such as:</td>
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</tr>
<tr>
<td>CLPS 0200</td>
<td>Human Cognition</td>
</tr>
<tr>
<td>CLPS 0220</td>
<td>Making Decisions</td>
</tr>
<tr>
<td>One approved course in Perception:</td>
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<tr>
<td>CLPS 0500</td>
<td>Perception and Mind</td>
</tr>
<tr>
<td>One approved course in Language, such as:</td>
<td></td>
</tr>
<tr>
<td>CLPS 0800</td>
<td>Language and the Mind</td>
</tr>
<tr>
<td>CLPS 0300</td>
<td>Introduction to Linguistics</td>
</tr>
<tr>
<td>One approved course in Computational Methods, such as:</td>
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</tr>
<tr>
<td>CLPS 0950</td>
<td>Introduction to programming</td>
</tr>
<tr>
<td>CLPS 1291</td>
<td>Computational Methods for Mind, Brain and Behavior</td>
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<tr>
<td>Four Approved Electives related to Cognitive Science, such as:</td>
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<tr>
<td>APMA 1690</td>
<td>Computational Probability and Statistics</td>
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<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>CLPS 1100</td>
<td>Animal Cognition</td>
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<tr>
<td>CLPS 1470</td>
<td>Mechanisms of Motivated Decision Making</td>
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<tr>
<td>CLPS 1500</td>
<td>Perception and Action</td>
</tr>
<tr>
<td>CLPS 1610</td>
<td>Cognitive Development</td>
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<tr>
<td>CLPS 1800</td>
<td>Language Processing</td>
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<td>CSCI 1010</td>
<td>Theory of Computation</td>
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<td>CSCI 1480</td>
<td>Building Intelligent Robots</td>
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<tr>
<td>EDUC 1260</td>
<td>Emotion, Cognition, Education</td>
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<td>ENGN 1580</td>
<td>Communication Systems</td>
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<tr>
<td>PHIL 1770</td>
<td>Philosophy of Mind</td>
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<tr>
<td>One Independent Study or Approved Seminar, such as:</td>
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<tr>
<td>CLPS 1400</td>
<td>The Neural Bases of Cognition</td>
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<td>Total Credits</td>
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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 interdisciplinary approach (interdisciplinary study, 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 and 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 the Director of Undergraduate Studies, listed below, 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.

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

Examples of courses that may fulfill the requirements,
above, include but are not limited to the following courses.
Students are encouraged to discuss class choices with their
advisor.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLT 0510F</td>
<td>Fidel Castro and Che Guevara, The Men and the Myths</td>
</tr>
<tr>
<td>COLT 0510K</td>
<td>The 1001 Nights</td>
</tr>
<tr>
<td>COLT 0510P</td>
<td>Reading the Renaissance</td>
</tr>
<tr>
<td>COLT 0610D</td>
<td>Rites of Passage</td>
</tr>
<tr>
<td>COLT 0710C</td>
<td>Introduction to Scandinavian Literature</td>
</tr>
<tr>
<td>COLT 0710I</td>
<td>New Worlds: Reading Spaces and Places in Colonial Latin America</td>
</tr>
<tr>
<td>COLT 0710Z</td>
<td>Comedy from Athens to Hollywood</td>
</tr>
<tr>
<td>COLT 0711H</td>
<td>The Arabic Novel</td>
</tr>
<tr>
<td>COLT 0711L</td>
<td>The Quran and its Readers</td>
</tr>
<tr>
<td>COLT 0810H</td>
<td>How Not to Be a Hero</td>
</tr>
<tr>
<td>COLT 0810I</td>
<td>Tales and Talemakers of the Non-Western World</td>
</tr>
<tr>
<td>COLT 0811I</td>
<td>Classical Mythology and the Western Tradition</td>
</tr>
<tr>
<td>COLT 0812O</td>
<td>Reading Art in Literature</td>
</tr>
<tr>
<td>COLT 1210</td>
<td>Introduction to the Theory of Literature</td>
</tr>
<tr>
<td>COLT 1310M</td>
<td>The Literature of Muslim Spain</td>
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<tr>
<td>COLT 1310N</td>
<td>Global Modernism and Crisis</td>
</tr>
<tr>
<td>COLT 1422J</td>
<td>Global Detective Fiction</td>
</tr>
<tr>
<td>COLT 1422K</td>
<td>Faulkner</td>
</tr>
<tr>
<td>COLT 1422L</td>
<td>The Modernist Novel: Alienation and Narration</td>
</tr>
<tr>
<td>COLT 1430D</td>
<td>Critical Approaches to Chinese Poetry</td>
</tr>
<tr>
<td>COLT 1431B</td>
<td>Modern Arabic Poetry</td>
</tr>
<tr>
<td>COLT 1431C</td>
<td>Poets, Poetry, and Politics</td>
</tr>
<tr>
<td>COLT 1431F</td>
<td>Reading Modernist Poetry</td>
</tr>
<tr>
<td>COLT 1440P</td>
<td>Nationalism and Transnationalism in Film and Fiction</td>
</tr>
<tr>
<td>COLT 1440R</td>
<td>This is Palestine</td>
</tr>
<tr>
<td>COLT 1440W</td>
<td>Patterns of Migrations / People and Objects</td>
</tr>
<tr>
<td>COLT 1440X</td>
<td>Sheherazades: Depicting the &quot;Oriental&quot; in Modern French Culture</td>
</tr>
<tr>
<td>COLT 1610B</td>
<td>Irony</td>
</tr>
<tr>
<td>COLT 1610V</td>
<td>The Promise of Being: Heidegger for Beginners</td>
</tr>
<tr>
<td>COLT 1710C</td>
<td>Literary Translation Workshop</td>
</tr>
<tr>
<td>COLT 1810P</td>
<td>Literature and Medicine</td>
</tr>
<tr>
<td>COLT 1811L</td>
<td>Travel, Tourism, Trafficking through the Ages</td>
</tr>
<tr>
<td>COLT 1813M</td>
<td>Making a List</td>
</tr>
<tr>
<td>COLT 1813N</td>
<td>Early Modern Women's Writing</td>
</tr>
<tr>
<td>COLT 1814U</td>
<td>Politics of Reading</td>
</tr>
<tr>
<td>COLT 1815J</td>
<td>1492 – Unlearning Single World Order and Single World History</td>
</tr>
<tr>
<td>COLT 1815L</td>
<td>The Marriage Plot</td>
</tr>
<tr>
<td>COLT 2540L</td>
<td>Comparative Modernisms</td>
</tr>
<tr>
<td>COLT 2720C</td>
<td>Literary Translation</td>
</tr>
<tr>
<td>COLT 2820M</td>
<td>Discourses of the Senses</td>
</tr>
<tr>
<td>COLT 2822A</td>
<td>War</td>
</tr>
</tbody>
</table>

**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.
• 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.

Examples of courses that may fulfill the requirements,
above, include but are not limited to the following courses.
Students are encouraged to discuss class choices with their
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</tr>
<tr>
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</tr>
<tr>
<td>COLT 2820M</td>
<td>Discourses of the Senses</td>
</tr>
<tr>
<td>COLT 2822A</td>
<td>War</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Track 3: Concentration in Literary Translation

### General Requirements
- 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.
- One course or more in Linguistics, drawn from among these courses: Cognitive, Linguistic and Psychological Sciences 0410, Anthropology 0800, English 1210, Spanish and Latin American Studies 1210 or an acceptable substitute.
- Five or six advanced literature courses (generally 1000-level courses), including Comparative Literature 1210 and:
  - 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.
  - One course chiefly devoted to each of the three major literary genres: poetry, drama, and narrative.
  - One course chiefly devoted to each of the following five 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.
- Two workshops or more in Creative Writing
- A senior project to consist of
  - A substantial work in translation (length will vary depending upon language and genre).

A critical introduction outlining the method used and specific problems encountered, and commenting on the history of the original work together with other translations, if any. For thesis, the student may register for COLT 1990, which will be taken in addition to the ten required courses listed above. Successful completion of the thesis constitutes Honors. (See Guidelines for Honors Theses).

### Examples of courses that may fulfill the requirements, above, include but are not limited to the following courses. Students are encouraged to discuss class choices with their advisor.

| COLT 1422L | The Modernist Novel: Alienation and Narration |
| COLT 1430D | Critical Approaches to Chinese Poetry |
| COLT 1431B | Modern Arabic Poetry |
| COLT 1431C | Poets, Poetry, and Politics |
| COLT 1431F | Reading Modernist Poetry |
| COLT 1440P | Nationalism and Transnationalism in Film and Fiction |
| COLT 1440R | This is Palestine |
| COLT 1440W | Patterns of Migrations / People and Objects |
| COLT 1440X | Sheherazades: Depicting the "Oriental" in Modern French Culture |
| COLT 1610B | Irony |
| COLT 1610V | The Promise of Being: Heidegger for Beginners |
| COLT 1710C | Literary Translation Workshop |
| COLT 1810P | Literature and Medicine |
| COLT 1811L | Travel, Tourism, Trafficking through the Ages |
| COLT 1813M | Making a List |
| COLT 1813N | Early Modern Women's Writing |
| COLT 1814U | Politics of Reading |
| COLT 1815J | 1492 – Unlearning Single World Order and Single World History |
| COLT 1815L | The Marriage Plot |
| COLT 2540L | Comparative Modernisms |
| COLT 2720C | Literary Translation |
| COLT 2820M | Discourses of the Senses |
| COLT 2822A | War |

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
For additional information, please visit the Comparative Literature website (http://www.brown.edu/Departments/Comparative_Literature/) or see the Director of Undergraduate Studies, Professor Ourida Mostefai.

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 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

**Prerequisites:**

<table>
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<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>MATH 0100</td>
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<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
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<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
</tr>
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**General Core Requirements: Biology**

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<th>Title</th>
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<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>or BIOL 0500</td>
<td>Cell and Molecular Biology</td>
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**General Core Requirements: Chemistry**

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<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>or CHEM 0350</td>
<td>Organic Chemistry</td>
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**General Core Requirements: Computer Science**

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<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures</td>
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<tr>
<td>&amp; CSCI 0160</td>
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<td>OR</td>
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<tr>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
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<tr>
<td>&amp; CSCI 0180</td>
<td>and Computer Science: An Integrated Introduction</td>
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<td>OR</td>
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<tr>
<td>CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
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<tr>
<td>&amp; CSCI 0180</td>
<td>and Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>&amp; CSCI 0330</td>
<td>and Introduction to Software Engineering</td>
</tr>
<tr>
<td>&amp; CSCI 1010</td>
<td>and Introduction to Computer Systems and Theory of Computation</td>
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**General Core Requirements: Probability & Statistics**

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<td>APMA 1650</td>
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<td>OR</td>
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<td>CSCI 1450</td>
<td>Probability for Computing and Data Analysis</td>
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<td>OR</td>
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<td>MATH 1610</td>
<td>Probability</td>
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**Comp Bio Core Course Requirements**

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<tbody>
<tr>
<td>CSCI 1810</td>
<td>Computational Molecular Biology</td>
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<tr>
<td>APMA 1080</td>
<td>Inference in Genomics and Molecular Biology</td>
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<td>AND two of the following:</td>
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<tr>
<td>CSCI 1820</td>
<td>Algorithmic Foundations of Computational Biology</td>
</tr>
<tr>
<td>BIOL 1430</td>
<td>Population Genetics</td>
</tr>
</tbody>
</table>

Total Credits: 12

**University Writing Requirement:**

As part of Brown’s writing requirement, all students must demonstrate that they have worked on their writing both in their general studies and their concentration. There are a number of ways for Computational Biology concentrators to fulfill these requirements:

- 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**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or equivalent)</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or equivalent)</td>
</tr>
</tbody>
</table>

**General Core Course Requirements: Biology**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0470</td>
<td>Genetics (prerequisite BIOL 0200 or equivalent)</td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>or BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
</tbody>
</table>

**General Core Course Requirements: Chemistry**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>or CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
</tbody>
</table>

**General Core Course Requirements: Computer Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<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>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
</tr>
<tr>
<td>&amp; CSCI 0180</td>
<td>and Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>&amp; CSCI 0330</td>
<td>and Introduction to Software Engineering</td>
</tr>
<tr>
<td>&amp; CSCI 1010</td>
<td>and Introduction to Computer Systems and Theory of Computation</td>
</tr>
</tbody>
</table>

**General Core Requirements: Probability & Statistics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CSCI 1450</td>
<td>Probability for Computing and Data Analysis</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>MATH 1610</td>
<td>Probability</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
CSCI 1810  Computational Molecular Biology  1
APMA 1080  Inference in Genomics and Molecular Biology  1

Capstone Experience  1
BIOL 1950/1960  Directed Research/Independent Study
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

At least three of the following:
APMA 0360  Applied Partial Differential Equations I
APMA 0370  Applied Partial Differential Equations II
APMA 1660  Statistical Inference II
CSCI 1410  Artificial Intelligence
CSCI 1550  Probabilistic Methods in Computer Science
CSCI 1910  Cross Disciplinary Investigation: (TBD)

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
PHP 2620  Statistical Methods in Bioinformatics, I
APMA 1660  Statistical Inference II
BIOIL 1430  Population Genetics
BIOIL 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  Methods of Applied Mathematics I, II
OR
APMA 0360  Applied Partial Differential Equations I
& APMA 0350  Applied Partial Differential Equations II

At least three of the following:
BIOIL 1430  Population Genetics
CSCI 1820  Algorithmic Foundations of Computational Biology
PHP 2620  Statistical Methods in Bioinformatics, I
APMA 1070  Quantitative Models of Biological Systems
BIOIL 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 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 these concentrations. Students may not use more than two CSCI 1970 courses to complete the requirements for the Sc.B. and one CSCI 1970 course for the A.B. requirements.

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:  2

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)

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Ten CS courses numbered 0220 or higher.

# Additional intermediate courses so that a total of five are taken, with at least one from each of the three categories
# One additional 1000-level course that is neither a core nor a related course for the pathways used above

**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.

- **Mathematics**
  - CSCI 0320: Introduction to Software Engineering
  - CSCI 0330: Introduction to Computer Systems

- **Systems**
  - CSCI 1270: Distributed Computer Systems
  - CSCI 1670: Operating Systems

- **Related Courses**
  - CSCI 1300: Distributed Computer Systems
  - CSCI 1680: Computer Networks

- **Core Courses**
  - CSCI 1380: Distributed Computer Systems
  - CSCI 1670: Operating Systems
  - CSCI 1680: Computer Networks

- **Related Courses**
  - CSCI 1270: Distributed Computer Systems
  - CSCI 1320: Creating Modern Web & Mobile Applications
  - CSCI 1600: Real-Time and Embedded Software
  - CSCI 1550: Introduction to Modern Computing Systems
  - CSCI 1730: Design and Implementation of Programming Languages
  - CSCI 1769: Multiprocessor Synchronization
  - CSCI 1950Y: Logic for Systems

**Pathways**

Completing a pathway entails taking two courses in the pathway of which at least one is a course required for the pathways used above. 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**

- **Core Courses**
  - CSCI 1380: Distributed Computer Systems
  - CSCI 1670: Operating Systems
  - CSCI 1680: Computer Networks

- **Related Courses**
  - CSCI 1270: Distributed Computer Systems
  - CSCI 1320: Creating Modern Web & Mobile Applications
  - CSCI 1600: Real-Time and Embedded Software
  - CSCI 1650: Software Security and Exploitation
  - CSCI 1690: Introduction to Computer Systems Security
  - CSCI 1730: Design and Implementation of Programming Languages
  - CSCI 1790: Multiprocessor Synchronization
  - CSCI 1950Y: Logic for Systems

**Related Courses**

- CSCI 1550: Probabilistic Methods in Computer Science
- CSCI 1951A: Data Science
- CSCI 1951B: Probabilistic Methods in Computer Science
- CSCI 1951C: Information Retrieval and Web Search
- CSCI 1951D: Big Data

**DATA: Studies the management and use of large data collections**

- **Core Courses**
  - CSCI 1270: Database Management Systems
  - CSCI 1420: Machine Learning
  - CSCI 1951A: Data Science

- **Related Courses**
  - CSCI 1550: Probabilistic Methods in Computer Science
  - CSCI 1580: Information Retrieval and Web Search
  - ECON 1660: Big Data

- **Intermediate Courses**
  - CSCI 0220: Introduction to Discrete Structures and Probability
  - CSCI 0320: Introduction to Software Engineering
  - CSCI 0330: Introduction to Computer Systems

**ARBITRARY INTELLIGENCE / MACHINE LEARNING: studies the theory and application of algorithms for making decisions and inferences from rules and data**

- **Core Courses**
  - CSCI 1410: Artificial Intelligence
  - CSCI 1420: Machine Learning
  - CSCI 1430: Computer Vision
  - CSCI 1460: Computational Linguistics
  - CSCI 1470: Deep Learning
  - CSCI 1951R: Introduction to Robotics

- **Related Courses**
  - CSCI 1550: Probabilistic Methods in Computer Science

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1320</td>
<td>Creating Modern Web &amp; Mobile Applications</td>
</tr>
<tr>
<td>or CSCI 1380</td>
<td>Distributed Computer Systems</td>
</tr>
<tr>
<td>or CSCI 1670</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>or CSCI 1730</td>
<td>Design and Implementation of Programming Languages</td>
</tr>
<tr>
<td>or CSCI 1800</td>
<td>Cybersecurity and International Relations</td>
</tr>
<tr>
<td>or CSCI 1805</td>
<td>Computers, Freedom and Privacy</td>
</tr>
<tr>
<td>or CSCI 1950Y</td>
<td>Logic for Systems</td>
</tr>
<tr>
<td>or CSCI 1951B</td>
<td>Virtual Citizens or Subjects? The Global Battle Over Governing Your Internet</td>
</tr>
</tbody>
</table>

Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1000</td>
<td>Introduction to Cryptography and Computer Security</td>
</tr>
<tr>
<td>or CSCI 1660</td>
<td>Introduction to Computer Systems Security</td>
</tr>
<tr>
<td>or CSCI 1650</td>
<td>Software Security and Exploitation</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 experience? What topics, in particular, were important?
• In retrospect, which courses should you 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 Professional Track of the A.B. degree

Prerequisites (0-3 courses)

Students must complete or place out of second semester calculus:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>or MATH 0190</td>
<td>Advanced Placement Calculus (Physics/ Engineering)</td>
</tr>
</tbody>
</table>

Concentration Requirements (9 courses)

Core Computer Science:
Select one of the following series:

<table>
<thead>
<tr>
<th>Series A</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>&amp; CSCI 0160</td>
<td></td>
<td>Introduction to Algorithms and Data Structures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series B</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>&amp; CSCI 0180</td>
<td></td>
<td>and Computer Science: An Integrated Introduction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series C</th>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<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 course, or an advanced course)</td>
</tr>
</tbody>
</table>

Seven CS courses numbered 0220 or higher

# One complete pathway (see ScB for pathways)
Requires two 1000-level courses as well as one-to-three intermediate courses

# 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.

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 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 shopping period 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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

- Which courses were put to use in your summer’s work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

## Computer Science-Economics

The joint Computer Science-Economics concentration exposes students to the theoretical and practical connections between computer science and economics. It prepares students for professional careers that incorporate aspects of economics and computer technology and for academic careers conducting research in areas that emphasize the overlap between the two fields. Concentrators may choose to pursue either the A.B. or the Sc.B. degree. While the A.B. degree allows students to explore the two fields, its smaller number of required courses is compatible with a liberal education. The Sc.B. degree achieves greater depth in both computer science and economics by requiring more courses, and it offers students the opportunity to creatively integrate both disciplines through a design requirement. In addition to courses in economics, computer science, and applied mathematics, all concentrators must fulfill the Computer Science department’s writing requirement by passing a course that involves significant expository writing.

### Standard Program for the Sc.B. degree.

#### Prerequisites (3 courses):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>or CSCI 0530</td>
<td>Coding the Matrix: An Introduction to Linear Algebra for Computer Science</td>
</tr>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
</tr>
</tbody>
</table>

#### Required Courses: 17 courses: 8 Computer Science, 8 Economics, and a Capstone

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1450</td>
<td>Probability for Computing and Data Analysis *</td>
</tr>
<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>or APMA 1655</td>
<td>Statistical Inference I</td>
</tr>
</tbody>
</table>

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series A</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0150 &amp; CSCI 0160</td>
<td>Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series B</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0170 &amp; CSCI 0180</td>
<td>Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series C</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>

Two of the following intermediate 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>
<tr>
<td>CSCI 0330</td>
<td>Introduction to Computer Systems (systems)</td>
</tr>
<tr>
<td>CSCI 1010</td>
<td>Theory of Computation (math)</td>
</tr>
</tbody>
</table>

A pair of 1000-level CS courses that, along with the intermediate courses and math courses, satisfy one of the CS Pathways.

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>Mathematical Econometrics I</td>
</tr>
<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>Theory of 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>

An additional CS course that is either at the 1000-level or is an intermediate course not already used to satisfy concentration requirements. CSCI 1450 may not be used to satisfy this requirement.

Two additional 1000-level Economics courses (excluding 1620, 1960, 1970).

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
One capstone course in either CS or Economics: a one-semester course, normally taken in the student’s last semester 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. A senior thesis, which involved two semesters of work, may count as a capstone.  

Total Credits 17

1 CSCI 1450 was formerly known as CSCI 0450: they are the same course and hence only one may be taken for credit. APMA 1650 or APMA 1655 may be used in place of CSCI 1450 in CS pathway requirements. However, concentration credit will be given for only one for APMA 1650, APMA 1655, and CSCI 1450.

2 CSCI 1010 may be used either as a math-oriented intermediate course or as an advanced course. CSCI 1010 was formerly known as CSCI 0510: They are the same course and hence only one may be taken for credit.

3 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. CS Pathways can be found on the New Pathways (https://cs.brown.edu/degrees/undergrad/new-concentration-requirements/pathways-scb-and-ab-concentrations) page.

4 Or ECON 1110, with permission.

5 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.

6 One capstone course (http://cs.brown.edu/degrees/undergrad/concentrations/capstone/web) 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.

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 for Computing and Data Analysis
or APMA 1650 Statistical Inference I
or APMA 1655

Select one of the following series: 2

Series A
CSCI 0150 & CSCI 0160 Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures

Series B
CSCI 0170 & CSCI 0180 Computer Science: An Integrated Introduction and Computer Science: An Integrated Introduction

Series C
CSCI 0190 Accelerated Introduction to Computer Science (and an additional CS course not otherwise used to satisfy a concentration requirement; this course may be CSCI 0180, an intermediate-level course, or a 1000-level course)

Two of the following intermediate courses, one of which must be math-oriented and one systems-oriented: 2

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 (math)

Two additional CS courses; at least one must be at the 1000-level. The other must either be at the 1000-level or be an intermediate course not already used to satisfy concentration requirements. CSCI 1450 may not be used to satisfy this requirement.

ECON 1130 Intermediate Microeconomics (Mathematical)
ECON 1210 Intermediate Macroeconomics
ECON 1630 Mathematical Econometrics I

Three 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 Theory of Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics

or any graduate Economics course

Total Credits 13

1 Or ECON 1110, with permission.
2 CSCI 1951K can be counted as one of them, if it has not been used to satisfy the computer science requirements of the concentration and if the student has taken either ECON 1470 or ECON 1870.
3 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.

Honors

Students who meet stated requirements are eligible to write an honors thesis in their senior year. Students should consult the listed honors

For up-to-date course information please visit Courses@Brown.edu (https://cabo25.brown.edu).
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?
- 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.

**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)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST 0100</td>
<td>Introduction to Contemplative Studies</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
</tr>
<tr>
<td>CLPS 0200</td>
<td>Human Cognition</td>
</tr>
<tr>
<td>CLPS 0500</td>
<td>Perception and Mind</td>
</tr>
<tr>
<td>NEUR 0101</td>
<td>The Brain: An Introduction to Neuroscience</td>
</tr>
</tbody>
</table>

Others with approval

Select one from following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST 0200</td>
<td>Meditation and the Brain</td>
</tr>
<tr>
<td>COST 1020</td>
<td>Cognitive Neuroscience of Meditation</td>
</tr>
<tr>
<td>COST 1080</td>
<td>Meditation, Mindfulness and Health</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1240</td>
<td>Religion and Culture</td>
</tr>
</tbody>
</table>

**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 research 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. A one semester Independent Reading and Research course, either COST 1910 or 1920 OR BIOL 1950 or 1960, depending on the semester; OR

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAS 0210Y</td>
<td>The Philosophy of Classical Indian Yoga</td>
</tr>
<tr>
<td>CLAS 0820</td>
<td>Epics of India</td>
</tr>
<tr>
<td>CLAS 0850</td>
<td>Mythology of India</td>
</tr>
<tr>
<td>CLAS 0990</td>
<td>Concepts of the Self in Classical Indian Literature</td>
</tr>
<tr>
<td>CLAS 0995</td>
<td>India's Classical Performing Arts</td>
</tr>
<tr>
<td>CLAS 1140</td>
<td>Classical Philosophy of India</td>
</tr>
<tr>
<td>CLAS 1160</td>
<td>Classics of Indian Literature</td>
</tr>
<tr>
<td>COST 0145</td>
<td>Karma, Rebirth and Liberation: Life and Death in South Asian Religions</td>
</tr>
<tr>
<td>COST 0420</td>
<td>The Theory and Practice of Buddhist Meditation</td>
</tr>
<tr>
<td>COST 0530</td>
<td>Laozi and the Dao dejing</td>
</tr>
<tr>
<td>COST 0550</td>
<td>Tibetan Buddhism and the West</td>
</tr>
<tr>
<td>COST 0855</td>
<td>The Bhagavad Gita (CLAS 0855)</td>
</tr>
<tr>
<td>EAST 0180</td>
<td>Japan: Nature, Ritual, and the Arts</td>
</tr>
<tr>
<td>EAST 1420</td>
<td>The Confucian Mind</td>
</tr>
<tr>
<td>EAST 1880D</td>
<td>Early Daos Syncretism: Zhuang Zi and Huiinain Zi</td>
</tr>
<tr>
<td>RELS 0045</td>
<td>Buddhism and Death</td>
</tr>
<tr>
<td>RELS 0100</td>
<td>Buddhist Thought, Practice, and Society</td>
</tr>
<tr>
<td>RELS 0120</td>
<td>The Classical Chinese Philosophy of Life</td>
</tr>
<tr>
<td>RELS 1441</td>
<td>Zen Meditation in China, Korea, and Japan</td>
</tr>
<tr>
<td>RELS 0570</td>
<td>Science, Religion, and the Search for Happiness in Traditional Asian Thought</td>
</tr>
<tr>
<td>RELS 0580</td>
<td>Experiencing the Sacred: Embodiment and Aesthetics in South Asian Religions</td>
</tr>
<tr>
<td>RELS 1370B</td>
<td>Philosophy of Mysticism</td>
</tr>
<tr>
<td>RELS 1425</td>
<td>Buddhist Poetry</td>
</tr>
<tr>
<td>RELS 1440</td>
<td>Themes in Japanese Buddhism</td>
</tr>
<tr>
<td>RELS 1442</td>
<td>The History, Philosophy, and Practice of Rinzi Zen Buddhism</td>
</tr>
</tbody>
</table>

**The Philosophy of Mind**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>COST 1520</td>
<td>Consciousness</td>
</tr>
<tr>
<td>PHIL 0350</td>
<td>Ancient Philosophy</td>
</tr>
<tr>
<td>PHIL 0850</td>
<td>Psychology and Philosophy of Happiness</td>
</tr>
<tr>
<td>PHIL 0990L</td>
<td>Valuing Persons</td>
</tr>
<tr>
<td>PHIL 0990M</td>
<td>Descartes Meditations</td>
</tr>
<tr>
<td>PHIL 1290</td>
<td>Kant's Moral Philosophy</td>
</tr>
<tr>
<td>PHIL 1590</td>
<td>Philosophy of Science</td>
</tr>
<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>
<tr>
<td>PHIL 2150G</td>
<td>Aristotle's Metaphysics</td>
</tr>
<tr>
<td>UNIV 1520</td>
<td>The Shaping of World Views</td>
</tr>
</tbody>
</table>

**Others with approval**

- BIOL 0280  Biochemistry (lab)
- BIOL 0470  Genetics (lab)
- BIOL 0530  Principles of Immunology
- BIOL 0800  Principles of Physiology (lab)
- BIOL 1880  Comparative Biology of the Vertebrates
- CLPS 0700  Social Psychology
- CLPS 0710  The Psychology and Philosophy of Happiness
- CLPS 1193  Laboratory in Genes and Behavior
- CLPS 1194  Sleep and Chronobiology Research
- CLPS 1291  Computational Methods for Mind, Brain and Behavior
- CLPS 1400  The Neural Bases of Cognition
- CLPS 1490  Functional Magnetic Resonance Imaging: Theory and Practice
- CLPS 1492  Computational Cognitive Neuroscience
- CLPS 1570  Perceptual Learning
- CLPS 1590  Visualizing Vision
- CLPS 1791  Laboratory in Social Cognition
- COST 0200  Meditation and the Brain
- COST 1020  Cognitive Neuroscience of Meditation
- COST 1080  Meditation, Mindfulness and Health
- NEUR 1020  Principles of Neurobiology
- NEUR 1030  Neural Systems
- NEUR 1540  Neurobiology of Learning and Memory
- NEUR 1600  Experimental Neurobiology
- NEUR 1940I  Neural Correlates of Consciousness
- PHP 1600  Obesity in the 21st Century: Causes, Consequences and Countermeasures
- PHP 1920  Social Determinants of Health

**One statistics course (others with approval)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>BIOL 0495</td>
<td>Statistical Analysis of Biological Data</td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
<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.

The Humanities track also offers two concentrations: the **Philosophy of Mind** and the **Contemplative Religious Traditions**. These concentrations allow students to specialize in areas such as ancient and modern philosophy, religious studies, and cultural studies.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Honors 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. The Development Studies concentration will only accept new declarations through the class of 2023. Students in any class year can learn more about the new concentration (https://watson.brown.edu/iapa/about/faqs) in International and Public Affairs: Development Track.

Requirements

The Development Studies concentration will be available to students graduating through the class of 2023.

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 1871 D 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 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

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 coursework 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

CHIN 0100 Basic Chinese

CHIN 0200 Basic Chinese

CHIN 0300 Intermediate Chinese

CHIN 0400 Intermediate Chinese

CHIN 0350 Elementary to Intermediate Chinese for

CHIN 0450 Advanced Beginners and Advanced Chinese for Heritage Learners

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

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 ²</td>
</tr>
<tr>
<td>EAST 0650</td>
<td>Language, Culture, and Society: Korea ³</td>
</tr>
<tr>
<td>EAST 1030</td>
<td>Words on Things: Literature and Material Culture in Early Modern China</td>
</tr>
<tr>
<td>EAST 1070</td>
<td>China Modern: An Introduction to the Literature of Twentieth-Century China 1</td>
</tr>
<tr>
<td>EAST 1290</td>
<td>The Korea “Brand”: Understanding KPop, Film, and Culture of the Two Koreas in the Global Context ³</td>
</tr>
</tbody>
</table>

For additional elective choices, visit http://brown.edu/academics/east-asian-studies/courses/more-course-offerings.

1. China-centric
2. Japan-centric
3. Korea-centric
4. East Asia-centric

**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 1951B</td>
<td>From Desktop to Stage: Drama and Performance in Late Imperial China</td>
</tr>
<tr>
<td>EAST 1950G</td>
<td>Market Economy, Popular Culture, and Mass Media in Contemporary China</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 in the department's Senior Project Forum. The Forum will usually take place during the last week of the semester.
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 at any level or Chinese (CHIN), Japanese (JAPN), or Korean (KREA) courses at the 1000-level and above
  - 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) follow by ECON 1629 (http://bulletin.brown.edu/the-college/concentrations/econ/inline %20Course) or ECON 1630 (http://bulletin.brown.edu/the-college/
concentrations/econ/inline%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. The BEO concentration and all of its current BEO
track offerings remain in place through the class of 2023, after which it
will be discontinued. Please contact the BEO administrator for more
details, including information about advising in that concentration. A new
Business Economics track within the economics concentration is now
available to classes of 2020 and beyond. Please see the requirements for
this track listed below.

**Standard Economics Concentration**

**Mathematics Course Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 1620</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>ECON 0110</td>
<td>Essential Mathematics for Economics</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td>ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td>ECON 1629</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>MATH 1620</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>APMA 1655</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Mathematical Econometrics</td>
</tr>
<tr>
<td>ECON 1640</td>
<td>Applied Research Methods for Economists</td>
</tr>
</tbody>
</table>

At least five additional 1000-level Economics courses.

**Total Credits**

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).

**Business Economics Track**

**Course Requirements:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 1620</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>ECON 0170</td>
<td>Essential Mathematics for Economics</td>
</tr>
<tr>
<td>ECON 0710</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
</tr>
<tr>
<td>ECON 1130</td>
<td>Intermediate Microeconomics (Mathematical)</td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
</tr>
<tr>
<td>ECON 1460</td>
<td>Industrial Organization</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>MATH 1620</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>APMA 1655</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Mathematical Econometrics</td>
</tr>
<tr>
<td>ECON 1710</td>
<td>Investments</td>
</tr>
<tr>
<td>ECON 1720</td>
<td>Corporate Finance</td>
</tr>
<tr>
<td>ECON 1310</td>
<td>Labor Economics</td>
</tr>
<tr>
<td>ECON 1400</td>
<td>The Economics of Mass Media</td>
</tr>
</tbody>
</table>

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

Students wishing to complete the Professional Track for either the standard concentration or the Business Economics track will complete the requirements for the standard/Business Economics 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.

Total Credits: 12

1. If placing out of ECON 0110 with AP or IN test scores, one must take an additional 1000-level course.
2. Note that certain advanced economics courses may impose additional mathematical prerequisites. The standard mathematics requirement may be met through Advanced Placement but "placing into" a higher level mathematics course than MATH 0100, without taking that higher level course, does not satisfy the requirement. The AP mathematics credit must appear on your Brown transcript.

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

Honors students may elect to complete a thesis in Economics. Thesis courses are listed below. Courses in the thesis are in addition to the regular concentration requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1450</td>
<td>Economic Organizations and Economic Systems</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 1540</td>
<td>International Trade</td>
</tr>
<tr>
<td>ECON 1550</td>
<td>International Finance</td>
</tr>
<tr>
<td>ECON 1660</td>
<td>Big Data</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 1760</td>
<td>Financial Institutions</td>
</tr>
<tr>
<td>ECON 1820</td>
<td>Theory of Behavioral Economics</td>
</tr>
<tr>
<td>ECON 1870</td>
<td>Game Theory and Applications to Economics</td>
</tr>
</tbody>
</table>

Education Studies

Education questions are central to all societies, and they are complex and consequential, requiring knowledge and deliberation to answer effectively. Most nations provide some form of free public education and, as a result, need to determine goals for their education systems and decide how best to achieve them. In the United States, public schools have long been a preferred (albeit imperfect) lever for equal opportunity, at times contributing to economic competitiveness, innovation, and human capital development, but far too often perpetuating larger social and economic inequalities. The Education Department's mission is to understand and improve education through research and teaching, with a particular focus on K-12 public education in the United States.

Through multiple analytical lenses and disciplinary perspectives, the Education Studies concentration challenges students to understand human development, the purposes and processes of education, and the public and private institutions that shape educational opportunities and outcomes. The concentration offers students a deep and broad-based grounding in key concepts and theories related to individuals (as developing children, learners, and teachers), contexts (families and communities), organizations (schools, government, and policy arenas), and ecosystems (history, culture) and the ways these levels interact and intersect to influence children's development, their educational opportunities, and their outcomes. A hallmark of our concentration is developing students' understanding of how theory is connected to best practice. Our concentration provides opportunities to delve into some of social science’s biggest questions and to connect those questions to real-world consequences and applications.

For more information, please contact John Papay (john_papay@brown.edu?subject=Education concentration), Director of Undergraduate Studies.

Concentration Requirements

Concentrators take several Foundation courses in key areas (History, Policy, Human Development, Research Methods) and choose an Area of Emphasis in which to specialize (either Policy & History or Human Development). Policy & 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. The Department's website (https://www.brown.edu/academics/education/undergraduate) includes a list of concentration advisors.

The concentration in Education Studies requires a total of 10 courses, as follows:

- Research Methods Course: EDUC 1100, EDUC 1110 or an approved equivalent in another department.
- Human Development Foundation Course: EDUC 0800, EDUC 1270, or an approved equivalent
- History Foundation Course: EDUC 1020, EDUC 1200, or an approved equivalent
- Policy Foundation Course: EDUC 1060 or EDUC 1030, or an approved equivalent

Area of Emphasis: Students must take 5 courses total in their Area of Emphasis. Human Development students must take 4 courses in addition to the Foundation class, while Policy & History students must take 3 courses in addition to the Foundation classes.

- 2 or 3 Electives for a total of 10 courses. Electives may be additional Brown University Education courses outside the Area of Emphasis or related courses outside the Education Department. No more than 2 electives can be courses outside the Education Department and only 1 independent study can count towards concentration requirements.

Concentrators may pursue the Engaged Scholars Program, which allows students to connect theory and practice and gain hands-on experience working with community partners. The Department also offers opportunities for students to complete a Capstone project or Honors thesis.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### Foundational courses available in each of the required Core Categories:

#### Foundational Courses

**Human Development**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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 Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1020</td>
<td>The History of American Education</td>
</tr>
</tbody>
</table>

**Policy**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1060</td>
<td>Politics and Public Education</td>
</tr>
</tbody>
</table>

**Research Methods**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
</tbody>
</table>

### Courses in Human Development Area of Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>Juveniles for Justice: Youth Civic Engagement and Activism</td>
</tr>
<tr>
<td>EDUC 0620</td>
<td>Cradle of Inequality: The Role of Families, Schools, and Neighborhoods</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>

#### Courses in Policy-and-History Area of Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course 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>
<tr>
<td>EDUC 0610</td>
<td>Brown v. Board of Education</td>
</tr>
<tr>
<td>EDUC 0850</td>
<td>History of Intercollegiate Athletics</td>
</tr>
<tr>
<td>EDUC 0860</td>
<td>Sports in American Society</td>
</tr>
<tr>
<td>EDUC 1020</td>
<td>The History of American Education</td>
</tr>
<tr>
<td>EDUC 1030</td>
<td>Comparative Education</td>
</tr>
<tr>
<td>EDUC 1035</td>
<td>Decolonizing African Education: Student Activism and Social Change, 1960-present</td>
</tr>
<tr>
<td>EDUC 1040</td>
<td>Sociology of Education</td>
</tr>
<tr>
<td>EDUC 1045</td>
<td>Sociology of Higher Education</td>
</tr>
<tr>
<td>EDUC 1050</td>
<td>History of African-American Education</td>
</tr>
<tr>
<td>EDUC 1060</td>
<td>Politics and Public Education</td>
</tr>
<tr>
<td>EDUC 1130</td>
<td>Economics of Education I</td>
</tr>
<tr>
<td>EDUC 1150</td>
<td>Education, the Economy and School Reform</td>
</tr>
<tr>
<td>EDUC 1160</td>
<td>Evaluating the Impact of Social Programs</td>
</tr>
<tr>
<td>EDUC 1200</td>
<td>History of American School Reform</td>
</tr>
<tr>
<td>EDUC 1630</td>
<td>Strategic Management for School System Excellence</td>
</tr>
<tr>
<td>EDUC 1650</td>
<td>Policy Implementation in Education</td>
</tr>
<tr>
<td>EDUC 1720</td>
<td>Urban Schools in Historical Perspective</td>
</tr>
<tr>
<td>EDUC 1730</td>
<td>American Higher Education in Historical Context</td>
</tr>
<tr>
<td>EDUC 1740</td>
<td>Academic Freedom on Trial: A Century of Campus Controversies</td>
</tr>
</tbody>
</table>

#### Additional Education courses available as Electives for either Area of Emphasis

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 0900</td>
<td>Fieldwork and Seminar in Secondary Education</td>
</tr>
<tr>
<td>EDUC 0950</td>
<td>Learning About Learning: Classrooms in Context</td>
</tr>
<tr>
<td>EDUC 1010</td>
<td>The Craft of Teaching</td>
</tr>
<tr>
<td>EDUC 1090</td>
<td>Adolescent Literature</td>
</tr>
<tr>
<td>EDUC 1560</td>
<td>Philosophy of Education: Educational Thought and Practice</td>
</tr>
<tr>
<td>EDUC 1690</td>
<td>Literacy, Community, and the Arts: Theory into Practice</td>
</tr>
</tbody>
</table>

### Honors

Concentrators seeking to graduate with honors must apply for honors candidacy by the end of their sixth semester. Successful candidates must meet all requirements for the concentration; maintain a minimum grade average that includes more A's than B's in Education courses (a B must be counterbalanced by two A's); and successfully complete EDUC 1990 and EDUC 1991, in which they write a senior paper. For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
thesis under the guidance of a thesis advisor. Honors are awarded on the basis of thesis quality. Students whose theses meet or exceed the standards established in the Department Rubric earn honors upon graduation. Students interested in writing an Honors thesis should contact David Rangel, the Honors/Capstone Advisor.

Capstone

Capstones are voluntary, student-initiated projects or experiences outside the classroom that build on and contribute to students' Education Studies concentration. They can take various forms, including a research project, website design, curriculum design, policy analysis, or scholarly paper. Capstones can be designed and executed in the senior year, or can be based on a previous experience that the student wants to explore further in some way, such as an internship or teaching experience. While capstones do not confer academic credit or departmental honors, 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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUC 0900</td>
<td>Fieldwork and Seminar in Secondary Education</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1450</td>
<td>The Psychology of Teaching and Learning</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1070A</td>
<td>Student Teaching: English</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1070B</td>
<td>Student Teaching: History and Social Studies</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1070C</td>
<td>Student Teaching: Science</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1080A</td>
<td>Analysis of Teaching: English</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1080B</td>
<td>Analysis of Teaching: History and Social Studies</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1080C</td>
<td>Analysis of Teaching: Science</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 2060A</td>
<td>Methods of Teaching: English</td>
<td></td>
</tr>
<tr>
<td>or EDUC 2060B</td>
<td>Methods of Teaching: History and Social Studies</td>
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</tr>
<tr>
<td>or EDUC 2060C</td>
<td>Methods of Teaching: Science</td>
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</tr>
<tr>
<td>EDUC 2090</td>
<td>Literacy Across the Curriculum</td>
<td>1</td>
</tr>
</tbody>
</table>

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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASYR 0800</td>
<td>The Cradle of Civilization? An Introduction to the Near East</td>
</tr>
<tr>
<td>or ARCH 1600</td>
<td>Archaeologies of the Near East</td>
</tr>
<tr>
<td>ASYR 1000</td>
<td>Introduction to Akkadian</td>
</tr>
<tr>
<td>ASYR 1010</td>
<td>Intermediate Akkadian</td>
</tr>
</tbody>
</table>

Foundation Courses (at least one course from each of the following three areas):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASYR 1100</td>
<td>Imagining the Gods: Myths and Myth-making in Ancient Mesopotamia (WRIT)</td>
</tr>
<tr>
<td>ASYR 1300</td>
<td>The Age of Empires: The Ancient Near East in the First Millennium BC</td>
</tr>
<tr>
<td>ASYR 1500</td>
<td>Ancient Babylonian Magic and Medicine</td>
</tr>
<tr>
<td>ASYR 2310B</td>
<td>Assyriology I (WRIT)</td>
</tr>
<tr>
<td>ASYR 2310C</td>
<td>Assyriology II (WRIT)</td>
</tr>
<tr>
<td>ASYR 2600</td>
<td>Topics in Cuneiform Studies</td>
</tr>
</tbody>
</table>

Ancient Scholarship in Western Asia: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ASYR 1600</td>
<td>Astronomy Before the Telescope</td>
</tr>
<tr>
<td>ASYR 1650</td>
<td>Time in the Ancient World (WRIT)</td>
</tr>
<tr>
<td>ASYR 1700</td>
<td>Astronomy, Divination and Politics in the Ancient World (WRIT)</td>
</tr>
<tr>
<td>ASYR 1750</td>
<td>Divination in Ancient Mesopotamia (WRIT)</td>
</tr>
<tr>
<td>ASYR 2310A</td>
<td>Ancient Scientific Texts: Akkadian</td>
</tr>
</tbody>
</table>

Archaeology of Ancient Western Asia: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH 1200F</td>
<td>City and the Festival: Cult Practices and Architectural Production in the Ancient Near East (WRIT)</td>
</tr>
<tr>
<td>ARCH 1200I</td>
<td>Material Worlds: Art and Agency in the Near East and Africa</td>
</tr>
<tr>
<td>ARCH 1810</td>
<td>Under the Tower of Babel: Archaeology, Politics, and Identity in the Modern Middle East (WRIT)</td>
</tr>
<tr>
<td>ARCH 2010C</td>
<td>Architecture, Body and Performance in the Ancient Near Eastern World (WRIT)</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### 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, for example, 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 ordinarily be in the range of 5-7 pages in length, exclusive of bibliography. The prospectus will include proper citations throughout.

   Determination of whether or not a student may pursue the proposed project will be made on review of the prospectus by the readers and department chair. Prospectuses will be evaluated on the following scale:

   1. No concerns about the viability of the project.
   2. No concerns about the viability of the project, but minor weaknesses in the execution of the prospectus.
   3. Concerns about the viability of the project, but willingness to reevaluate a revised prospectus submitted within two weeks of receipt of evaluation.
   4. Reservations that the prospectus does not describe an honors-worthy project.
   5. Poorly conceived and shoddy work.

   Prospectuses will be returned to the student with this numerical evaluation and comments one week after submission of the prospectus. A prospectus must receive an evaluation of 1 or 2 prior to the third week of the seventh semester for a student to be admitted to the honors track. Students who submit an original prospectus that is graded 4 or 5 will not be permitted to rework the prospectus for the second submission.

### Undergraduate Concentrations

**Archaeologies of the Near East**

- The Rise of the State in the Near East
- The Cradle of Civilization? An Introduction
- The Rise of the State in the Near East
- The Cradle of Civilization? An Introduction
- Hieroglyphic Texts
- Selections from Middle Egyptian
- Egyptian Writing and Language (Middle Egyptian I)
- Egyptian Writing and Language (Middle Egyptian II)
- History of Egypt I
- History of Egypt II
- Introduction to Egyptian Archaeology and Art
- Ancient Egyptian Religion and Magic Temples and Tombs: Egyptian Religion and Culture
- Selections from Middle Egyptian Hieroglyphic Texts
- Ancient Egyptian Literature
- Any course covering the ancient Near East or Mediterranean world outside Egypt, such as:
- The Cradle of Civilization? An Introduction to the Ancient Near East
- Archaeologies of 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 or ARCH 1625: Ancient Egyptian Religion and Magic 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
- 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, 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.
2. Developing, completing and submitting the honors project

Once accepted as honors candidates, students will pursue a course of study that goes beyond what is expected of a regular concentrator. This includes:

- Enrollment in two semesters of independent study in Egyptology or Assyriology (these do not fulfill course requirements towards the concentration).
- 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.

3. 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 or original, and 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.

Organization and writing:
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, 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 relevant 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 a petition. The decision whether to award concentration credit is made by majority vote of the Engineering Concentration Committee.

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 0020, ENGN 0090, ENGN 0900, 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 to practice 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 at least one course 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?

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

Entry to the Professional Track requires a simple application form to be completed by the student and approved by the Concentration Advisor at the time of the concentration declaration. If the student has not yet declared a concentration, the form may be approved by the Chair of the Concentration Committee. The Concentration Advisor will certify that all Professional Track students have completed the necessary internships and will grant approval for the associated reflective essays. All other requirements remain identical to those in the standard tracks in the concentrations.

Chemical Engineering Track:
The Chemical Engineering program is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. The education objectives of the Chemical 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 engineering or related fields; or to successfully pursue other careers that benefit from the analytical or quantitative skills acquired through the Brown CHE Program; (2) to effectively apply the principles of chemical 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 (1)- (7) 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>
<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>
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<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
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</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>
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</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 I</td>
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2. Upper-Level Chemical & Biochemical Engineering Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGN 1110</td>
<td>Transport and Biotransport Processes</td>
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<tr>
<td>ENGN 1120</td>
<td>Reaction Kinetics and Reactor Design</td>
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<tr>
<td>ENGN 1130</td>
<td>Chemical Engineering Thermodynamics</td>
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<td>ENGN 1710</td>
<td>Heat and Mass Transfer</td>
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<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
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<tr>
<td>Advanced Chemistry elective course</td>
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<td>CHEM 0360</td>
<td>Organic Chemistry</td>
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<tr>
<td>or CHEM 0400</td>
<td>Biophysical and Bioinorganic Chemistry</td>
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<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>
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</table>

3. Capstone Design Course

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGN 1140</td>
<td>Chemical Process Design</td>
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</tr>
</tbody>
</table>

*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 (1)- (7) 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>
<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>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 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>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>
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</tr>
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<td>Intermediate Calculus (Physics/Engineering)</td>
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<tr>
<td>or MATH 0180</td>
<td>Intermediate Calculus</td>
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</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>
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</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 I</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>APMA 1650</td>
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<td>or APMA 1655</td>
<td>Statistical Inference I</td>
<td>1</td>
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<tr>
<td>or CSCI 1450</td>
<td>Probability for Computing and Data Analysis</td>
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<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>
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<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 1170</td>
<td>Introduction to Computational Linear Algebra</td>
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<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>
<tr>
<td>or CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
<td>1</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
or ENGN 0410
or NEUR 0010
The Brain: An Introduction to Neuroscience

Select one of the following series (other CSCI courses subject to approval):

- CSCI 0150
- & CSCI 0160
- Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures

- CSCI 0170
- & CSCI 0180
- Computer Science: An Integrated Introduction

- CSCI 0190
- Accelerated Introduction to Computer Science (and one additional CSCI course subject to approval)

2. Upper-Level Computer Engineering Curriculum:

ENGN 1570
Linear System Analysis

ENGN 1630
Digital Electronics Systems Design

ENGN 1640
Design of Computing Systems

MATH 0520
Linear Algebra

or MATH 0540
Honors Linear Algebra

One advanced Computer Engineering foundations course:

ENGN 1580
Communication Systems

ENGN 1600
Design and Implementation of VLSI Systems

ENGN 1610
Image Understanding

ENGN 1620
Analysis and Design of Electronic Circuits

ENGN 2530
Digital Signal Processing

One advanced Computer Science course with significant systems programming:

- CSCI 0330
- Introduction to Computer Systems

or CSCI 0320
Introduction to Software Engineering

or CSCI 1230
Introduction to Computer Graphics

or CSCI 1380
Distributed Computer Systems

or CSCI 1670
Operating Systems

or CSCI 1680
Computer Networks

or ENGN 0500
Digital Computing Systems

Select three upper-level electives from the list below (other ENGN or CSCI courses subject to approval). At least one must be an ENGN course and at least one must be a CSCI course.

- ENGN 1220
- Neuroengineering

- ENGN 1450
- Properties and Processing of Electronic Materials

- ENGN 1560
- Optics

- 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 1620
- Analysis and Design of Electronic Circuits

- ENGN 1680
- Design and Fabrication of Semiconductor Devices

- ENGN 1690
- Photonics Devices and Sensors

- 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

ENGN 2520
Pattern Recognition and Machine Learning

ENGN 2530
Digital Signal Processing

ENGN 2560
Computer Vision

ENGN 2610
Physics of Solid State Devices

ENGN 2620
Solid State Quantum and Optoelectronics

ENGN 2910A
Advanced Computer Architecture

ENGN 2911X
Reconfigurable Computing for Machine/Deep Learning

ENGN 2912B
Scientific Programming in C++

ENGN 2912E
Low Power VLSI System Design

CSCI 0320
Introduction to Software Engineering

CSCI 1230
Introduction to Computer Graphics

CSCI 1270
Database Management Systems

CSCI 1300
User Interfaces and User Experience

CSCI 1320
Creating Modern Web & Mobile 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

3. Capstone Design

ENGN 1650
Embedded Microprocessor Design

or ENGN 1000
Projects in Engineering Design I

or ENGN 1001
Projects in Engineering Design II

4. General Education Requirement: At least four approved courses must be taken in humanities and social sciences

Total Credits

21

1 Or Biology course beyond BIOL 0200 subject to Concentration Advisor approval

2 Subject to approval by the concentration advisor, the third upper-level elective may optionally be chosen from another department such as CLPS, NEUR, PHYS, or CHEM if it has a significant quantitative physical science emphasis.

3 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.

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 (1) - (7) 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</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
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<tr>
<td>or ENGN 0031</td>
<td>Honors Introduction to Engineering</td>
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</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
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<td>ENGN 0410</td>
<td>Materials Science</td>
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<tr>
<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
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<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 0310</td>
<td>Mechanics of Solids and Structures</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0810</td>
<td>Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>or CSCI 0160</td>
<td>Introduction to Algorithms and Data Structures</td>
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<tr>
<td>or CSCI 0180</td>
<td>Computer Science: An Integrated Introduction</td>
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<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
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<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
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<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
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<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
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<tr>
<td>or MATH 0180</td>
<td>Intermediate Calculus</td>
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<tr>
<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>
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<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
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<tr>
<td>or APMA 0360</td>
<td>Applied Partial Differential Equations I</td>
<td></td>
</tr>
<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
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<tr>
<td>or APMA 1710</td>
<td>Information Theory</td>
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</tr>
<tr>
<td>or MATH 0520</td>
<td>Linear Algebra</td>
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<tr>
<td>or MATH 0540</td>
<td>Honors Linear Algebra</td>
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<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
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<td>or CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving</td>
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<tr>
<td>or CSCI 0111</td>
<td>Computing Foundations: Data</td>
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</tr>
<tr>
<td>or CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
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</tr>
<tr>
<td>or CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
<td></td>
</tr>
<tr>
<td>or APMA 0160</td>
<td>Introduction to Scientific Computing</td>
<td></td>
</tr>
<tr>
<td>or ENGN 1931Z</td>
<td>Interfaces, Information and Automation</td>
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</table>

2. Upper-Level Electrical Engineering Curriculum

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>ENGN 1570</td>
<td>Linear System Analysis</td>
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</tr>
<tr>
<td>ENGN 1620</td>
<td>Analysis and Design of Electronic Circuits</td>
<td></td>
</tr>
<tr>
<td>ENGN 1630</td>
<td>Digital Electronics Systems Design</td>
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<tr>
<td>PHYS 0790</td>
<td>Physics of Matter</td>
<td></td>
</tr>
<tr>
<td>or PHYS 1410</td>
<td>Quantum Mechanics A</td>
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</tbody>
</table>

3. Electrical Engineering Specialization - Complete at least three courses from the following groups:

At least one advanced Electrical Engineering foundations course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGN 1230</td>
<td>Instrumentation Design</td>
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</tr>
<tr>
<td>ENGN 1580</td>
<td>Communication Systems</td>
<td></td>
</tr>
<tr>
<td>ENGN 1590</td>
<td>Introduction to Semiconductors and Semiconductor Electronics</td>
<td></td>
</tr>
<tr>
<td>ENGN 1600</td>
<td>Design and Implementation of VLSI Systems</td>
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<tr>
<td>ENGN 1610</td>
<td>Image Understanding</td>
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</tr>
<tr>
<td>ENGN 1640</td>
<td>Design of Computing Systems</td>
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</table>

Up to two other Electrical Engineering Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGN 1220</td>
<td>Neuroengineering</td>
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<tr>
<td>ENGN 1560</td>
<td>Optics</td>
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</tr>
<tr>
<td>ENGN 1650</td>
<td>Embedded Microprocessor Design</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 21

1. Or 1000-level Applied Mathematics or Mathematics course subject to Concentration Advisor Approval
2. ENGN 1931Z may replace CSCI 0150 or meet an elective requirement, but not both.
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.

Environmental Engineering Track:

Brown's Environmental Engineering program was launched in 2013. The first graduates completed the program with the Sc.B. degree in Environmental Engineering in Spring 2017. The program has graduated Sc.B. degree recipients every year since then. The program will seek accreditation from the Engineering Accreditation Commission of ABET during Brown's upcoming review period in 2020-2021 when the rest of the School of Engineering's existing accredited programs will be reviewed.

The education objectives of the program are: (1) to pursue scientific or technical careers starting with the entry-level positions in industry to graduate study in environmental engineering; (2) to demonstrate their ability to solve problems related to environmental pollution, protection, and sustainability. The student outcomes of this program are intended to be those enumerated in items (1) - (7) Student Outcomes as defined by the "ABET Criteria for Accrediting Engineering Programs" (available online at http://www.abet.org/accreditation-criteria-policies-documents/).

4. Capstone Design: At least one course from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENGN 1650</td>
<td>Embedded Microprocessor Design</td>
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</tr>
<tr>
<td>or ENGN 1000</td>
<td>Projects in Engineering Design I</td>
<td></td>
</tr>
<tr>
<td>or ENGN 1001</td>
<td>Projects in Engineering Design II</td>
<td></td>
</tr>
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</table>

5. General Education Requirement: At least four approved courses must be taken in humanities and social sciences

Total Credits: 26
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENGN 0490</td>
<td>Fundamentals of Environmental Engineering</td>
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<tr>
<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>or ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
</tr>
<tr>
<td>ENGN 0720</td>
<td>Thermodynamics</td>
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<td>ENGN 0810</td>
<td>Fluid Mechanics</td>
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<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
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<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
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<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>or MATH 0170</td>
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<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
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<td>or MATH 0180</td>
<td>Intermediate Calculus</td>
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<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
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<tr>
<td>or APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
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<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
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<tr>
<td>or APMA 1650</td>
<td>Statistical Inference I</td>
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<td>BIOL 0415</td>
<td>Microbes in the Environment (or an approved alternative Natural Science Course)</td>
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<tr>
<td>or BIOL 0420</td>
<td>Principles of Ecology</td>
</tr>
<tr>
<td>GEOL 1370</td>
<td>Environmental Geochemistry</td>
</tr>
<tr>
<td>or GEOL 1310</td>
<td>Global Water Cycle</td>
</tr>
<tr>
<td>or GEOL 1330</td>
<td>Global Environmental Remote Sensing</td>
</tr>
<tr>
<td>or GEOL 1520</td>
<td>Ocean Circulation and Climate</td>
</tr>
<tr>
<td>or GEOL 1960B</td>
<td>Special Topics in Geological Sciences: Physical Hydrology</td>
</tr>
<tr>
<td>ENGN 0310</td>
<td>Mechanics of Solids and Structures</td>
</tr>
<tr>
<td>or ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving (or approved science elective)</td>
</tr>
<tr>
<td>or CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
</tr>
<tr>
<td>or CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
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<tr>
<td>ENGN 1930U</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>or MATH 0180</td>
<td>Intermediate Calculus</td>
</tr>
<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>or APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
</tr>
</tbody>
</table>

### 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 (1) - (7) 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>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>or ENGN 0031</td>
<td>Honors Introduction to Engineering</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
</tr>
<tr>
<td>ENGN 0410</td>
<td>Materials Science</td>
</tr>
<tr>
<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
</tr>
<tr>
<td>ENGN 0720</td>
<td>Thermodynamics</td>
</tr>
<tr>
<td>ENGN 0310</td>
<td>Mechanics of Solids and Structures</td>
</tr>
<tr>
<td>or ENGN 0810</td>
<td>Fluid Mechanics</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
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</tr>
<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>or APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 (1) - (7) 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</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 030</td>
<td>Introduction to Engineering</td>
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<tr>
<td>or ENGN 0031</td>
<td>Honors Introduction to Engineering</td>
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<td>Dynamics and Vibrations</td>
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<td>ENGN 0310</td>
<td>Mechanics of Solids and Structures</td>
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<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>
<td>ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0720</td>
<td>Thermodynamics</td>
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<td>CHEM 0330</td>
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<tr>
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<td>Advanced Placement Calculus (Physics/Engineering)</td>
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<td>or MATH 0170</td>
<td>Advanced Placement Calculus</td>
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<td>MATH 0200</td>
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<td>or MATH 0180</td>
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<tr>
<td>or MATH 0350</td>
<td>Honors Calculus</td>
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</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
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<tr>
<td>or APMA 0350</td>
<td>Applied Ordinary Differential Equations</td>
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<td>or CSCI 0111</td>
<td>Computing Foundations: Data</td>
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<tr>
<td>or CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
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<tr>
<td>or CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
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<td>or CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
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<tr>
<td>or ENGN 1930M</td>
<td>Introduction to Scientific Computing</td>
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<tr>
<td>or ENGN 1931Z</td>
<td>Introduction to Scientific Computing</td>
<td></td>
</tr>
<tr>
<td>or ENGN 19312</td>
<td>Interfaces, Information and Automation</td>
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</table>

2. Upper-Level Mechanical Engineering Curriculum:

Complete at least 6 courses from the following groups:

**Mechanical Systems:** At least one course from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tr>
<td>ENGN 1300</td>
<td>Structural Analysis</td>
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<tr>
<td>ENGN 1370</td>
<td>Advanced Engineering Mechanics</td>
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<tr>
<td>ENGN 1750</td>
<td>Advanced Mechanics of Solids</td>
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**Fluids/Thermal Systems:** At least one course from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
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<tr>
<td>ENGN 1860</td>
<td>Advanced Fluid Mechanics</td>
<td></td>
</tr>
<tr>
<td>ENGN 1700</td>
<td>Jet Engines and Aerospace Propulsion</td>
<td></td>
</tr>
<tr>
<td>ENGN 1710</td>
<td>Heat and Mass Transfer</td>
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</tbody>
</table>

Capstone: At least one course from the following must be taken in the final two semesters:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGN 1000</td>
<td>Projects in Engineering Design I</td>
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</tr>
<tr>
<td>or ENGN 1001</td>
<td>Projects in Engineering Design II</td>
<td></td>
</tr>
<tr>
<td>or ENGN 1930T</td>
<td>Aircraft Design</td>
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<tr>
<td>ENGN 1930M</td>
<td>Industrial Design</td>
<td></td>
</tr>
<tr>
<td>ENGN 1931D</td>
<td>Design of Mechanical Assemblies</td>
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</tr>
<tr>
<td>ENGN 1380</td>
<td>Design of Civil Engineering Structures</td>
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</tr>
<tr>
<td>ENGN 1720</td>
<td>Design of Thermal Engines</td>
<td></td>
</tr>
<tr>
<td>ENGN 1760</td>
<td>Design of Space Systems</td>
<td></td>
</tr>
</tbody>
</table>

**Design Electives:** Up to two courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1230</td>
<td>Instrumentation Design</td>
<td></td>
</tr>
<tr>
<td>ENGN 1740</td>
<td>Computer Aided Visualization and Design</td>
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</tr>
</tbody>
</table>

**Bioengineering Electives:** Up to two courses from:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1210</td>
<td>Biomechanics</td>
<td></td>
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<tr>
<td>ENGN 1220</td>
<td>Neuroengineering</td>
<td></td>
</tr>
<tr>
<td>ENGN 1490</td>
<td>Biomaterials</td>
<td></td>
</tr>
</tbody>
</table>

1 These courses are taken in either the junior or senior year. Note that ENGN 1450, ENGN 1475, ENGN 1470 and ENGN 1480 are typically offered in alternate years.
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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 Treatment Systems - Technology and Sustainability
- 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 ENGN 1490 may be substituted if taken in Sophomore year.
2 Other advanced courses in mathematics or applied mathematics may be substituted with approval of the concentration advisor.
3 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.
4 ENGN 1931Z may replace CSCE 0040 or meet an elective requirement, but not both.
5 Other non-introductory courses in physics, chemistry, neuroscience, geology, or biology may be substituted with the permission of the concentration advisor.

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:
- 2
  - ENGN 0030 & ENGN 0040 Introduction to Engineering 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, Waves 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.

- 3
  - CSCE 0040 Introduction to Scientific Computing and Problem Solving
  - or APMA 0170 Introduction to Scientific Computing
  - or CSCI 0111 Computing Foundations: Data
  - 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
  - or PHYS 0470 Electricity and Magnetism
  - or ENGN 0010 Electricity and Magnetism
  - or ENGN 1560 Optics
  - or PHYS 1510 Advanced Electromagnetic Theory
  - or PHYS 0500 Advanced Classical Mechanics
  - or PHYS 0505 Advanced Engineering Mechanics
  - or PHYS 1410 Quantum Mechanics A
  - or PHYS 1420 Quantum Mechanics B
  - or PHYS 1530 Thermodynamics and Statistical Mechanics
  - or PHYS 0720 Thermodynamics
  - or ENGN 1620 Analysis and Design of Electronic Circuits
  - or CHEM 0330 Equilibrium, Rate, and Structure
  - or ENGN 0310 Mechanics of Solids and Structures
  - or ENGN 0810 Fluid Mechanics
  - or PHYS 1600 Computational Physics
  - or ENGN 1690 Materials Science
  - or ENGN 1690 Photonics Devices and Sensors
  - or PHYS 0560 Experiments in Modern Physics
  - or PHYS 1560 Modern Physics Laboratory
  - or ENGN 1590 Introduction to Semiconductors and Semiconductor Electronics
  - or an approved 2000-level engineering or physics course.

A thesis under the supervision of a physics or engineering faculty member:
- 1
  - PHYS 1990 Senior Conference Course
  - or ENGN 1970 Independent Studies in Engineering
or ENGN 1971 Independent Study in Engineering

* Students are also encouraged to take courses dealing with the philosophical, ethical, or political aspects of science and technology.

Total Credits 19

English

The English Department fosters the study of British, American, and Anglophone literature—old and new—in ways that are both intensive and open. We study how English literature works, how we understand and appreciate it, and how we write about it. We offer a wide array of courses in poetry, drama, fiction, creative nonfiction, film, digital media, and theory. All our courses emphasize the development of student skills in writing, textual analysis, and argument. The department’s faculty members are deeply committed to undergraduate teaching and advising. You will find considerable diversity in our critical methods, including cross-disciplinary approaches that relate the study of literature to history, politics, science, as well as to other art forms. We encourage students in our classes likewise to forge their own new ways of understanding literature and culture.

In addition to the standard 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 employment in many sectors, especially those that centrally involve writing and working with texts (in any form). In addition to authorship, scholarship, and teaching, these include: journalism, publishing, advertising, visual media, consulting, public relations, public service, finance, government, corporate research, and administration. Our English concentrations 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL 0100A</td>
<td>How To Read A Poem</td>
</tr>
<tr>
<td>ENGL 0100C</td>
<td>Altered States</td>
</tr>
<tr>
<td>ENGL 0100D</td>
<td>Matters of Romance</td>
</tr>
<tr>
<td>ENGL 0100F</td>
<td>Devils, Demons, Do-Gooders</td>
</tr>
<tr>
<td>ENGL 0100G</td>
<td>The Literature of Identity</td>
</tr>
<tr>
<td>ENGL 0100J</td>
<td>Cultures and Countercultures: The American Novel after World War II</td>
</tr>
</tbody>
</table>

2. ONE course in Medieval and Renaissance Literatures (Pre-1700): 1

   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.

3. ONE course in Literatures of Modernity (Post-1700): 1

   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: 1

   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>
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<th>Course Code</th>
<th>Title</th>
</tr>
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<tr>
<td>ENGL 0100F</td>
<td>Devils, Demons, Do-Gooders</td>
</tr>
<tr>
<td>ENGL 0100N</td>
<td>City Novels</td>
</tr>
<tr>
<td>ENGL 0100S</td>
<td>Being Romantic</td>
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<tr>
<td>ENGL 0100V</td>
<td>Inventing Asian American Literature</td>
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<tr>
<td>ENGL 0150X</td>
<td>The Claims of Fiction</td>
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<tr>
<td>ENGL 0150Y</td>
<td>Brontës and Brontëism</td>
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<td>ENGL 0700E</td>
<td>Postcolonial Literature</td>
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<tr>
<td>ENGL 0700G</td>
<td>American Fiction and Mass Culture</td>
</tr>
<tr>
<td>ENGL 0710B</td>
<td>African American Literature and the Legacy of Slavery</td>
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</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
ENGL 0710V | Death and Dying in Black Literature
ENGL 0710W | Readings in Black and Queer
ENGL 0710Y | Literature of US Inequality, 1945-2020
ENGL 1511A | American Literature and the Civil War
ENGL 1511C | Lincoln, Whitman, and The Civil War
ENGL 1511P | Realism, Modernism, Postmodernism: The American Novel and its Traditions
ENGL 1710J | Modern African Literature
ENGL 1710K | Literature and the Problem of Poverty
ENGL 1710P | The Literature and Culture of Black Power Reconsidered
ENGL 1711D | Reading New York
ENGL 1711H | Lyric Concepts: The Question of Identity in Modern and Contemporary Poetry
ENGL 1711J | Art for an Undivided Earth / Transnational Approaches to Indigenous Art and Activism
ENGL 1711K | The Politics of Perspective: Post-war British Fiction
ENGL 1711L | Contemporary Black Women's Literature
ENGL 1711N | Monsters in our Midst: The Plantation and the Woods in Trans-American Literature
ENGL 1760Y | Toni Morrison
ENGL 1761B | Narratives of Blackness in Latinx and Latin America
ENGL 1761V | The Korean War in Color
ENGL 1900D | Literature and Politics
ENGL 1901J | Lyric Concepts: The Question of Identity in Modern and Contemporary Poetry
ENGL 1901H | Contemporary Black Women’s Literature
ENGL 1901L | The Literature and Culture of Black Power Reconsidered
ENGL 1901N | Monsters in our Midst: The Plantation and the Woods in Trans-American Literature
ENGL 1901T | Toni Morrison
ENGL 1902W | Narcissus and Spillers
ENGL 1902X | The Recent Novel and its Cultural Rivals

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>ENGL 1910J</td>
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<tr>
<td>ENGL 1910K</td>
<td>Contemporary Black Women’s Literature</td>
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<tr>
<td>ENGL 1910L</td>
<td>The Literature and Culture of Black Power Reconsidered</td>
</tr>
<tr>
<td>ENGL 1910M</td>
<td>Monsters in our Midst: The Plantation and the Woods in Trans-American Literature</td>
</tr>
<tr>
<td>ENGL 1910N</td>
<td>Toni Morrison</td>
</tr>
<tr>
<td>ENGL 1910O</td>
<td>Narcissus and Spillers</td>
</tr>
<tr>
<td>ENGL 1910P</td>
<td>The Recent Novel and its Cultural Rivals</td>
</tr>
</tbody>
</table>

Total Credits: 25

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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 chosen between the candidate and at least one member, 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 thesis. 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 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 a first reader. 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 8th semester, but are encouraged to apply during their 5th semester and write their theses alongside May graduates. Interested concentrations 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 Honors Program in Nonfiction Writing 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, two 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 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 work typically is in a genre chosen from Nonfiction Writing’s spectrum: critical analysis, literary journalism, memoir, lyric essay, or narrative based on travel, science, history, or cultural critique.

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 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 its first reader and second reader, each of whom provides written commentary and suggests a grade for ENGL 1994.

Evaluation
The English Department reviews the academic record as well as the thesis evaluations for each senior completing the Nonfiction Writing Honors Program. Following a successful review, the student will be eligible to graduate with Honors in English.

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 five 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 theses concentrations or wish to be added to the email directory listing upcoming events, then please contact Jeanne Loewenstein (jeanne_loewenstein@brown.edu), the academic program 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**

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
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<tr>
<td>ENVS 0490</td>
<td>Enviromental Science in a Changing World</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 0110</td>
<td>Humans, Nature, and the Environment: Addressing Environmental Change in the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0210 or GEOL 0240</td>
<td>Diversity of Life</td>
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**Methods - one course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ENVS 1920</td>
<td>Methods for Interdisciplinary Environmental Research</td>
<td>1</td>
</tr>
</tbody>
</table>

**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):**

- 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

**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**

**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 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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>SOC 1270</td>
<td>Race, Class, and Ethnicity in the Modern World</td>
</tr>
<tr>
<td>SOC 1872C</td>
<td>Race and Ethnic Relations, Identity, and Inequality</td>
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**Environment and Inequality: Select One**

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<th>Course Code</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>ENVS 0710</td>
<td>Powering the Past: Environmental Histories of Energy Use and Social Change</td>
</tr>
<tr>
<td>ENVS 1415</td>
<td>Power, Justice, and Climate Change</td>
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</table>

**HIST 0270A** From Fire Wielders to Empire Builders: Human Impact on the Global Environment before 1492

**HIST 0270B** From the Columbian Exchange to Climate Change: Modern Global Environmental History

**HIST 1820A** Environmental History

**Policy: Select One**

<table>
<thead>
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<tbody>
<tr>
<td>ENVS 1350</td>
<td>Environmental Economics and Policy</td>
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<td>ENVS 1925</td>
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<td>POLS 1740</td>
<td>Politics of Food</td>
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**Tools: Select One**

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**PHP 1700** Current Topics in Environmental Health

**Tools: Select One**

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<th>Course Code</th>
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<tr>
<td>ANTH 1940</td>
<td>Ethnographic Research Methods</td>
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<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
<tr>
<td>ENVS 1105</td>
<td>Introduction to Environmental GIS</td>
</tr>
<tr>
<td>GEOL 1320</td>
<td>Introduction to Geographic Information Systems for Environmental Applications</td>
</tr>
<tr>
<td>GEOL 1330</td>
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</tr>
<tr>
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</tr>
<tr>
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<td>SOC 1340</td>
<td>Principles and Methods of Geographic Information Systems</td>
</tr>
<tr>
<td>SOC 2610</td>
<td>Spatial Thinking in Social Science</td>
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**Policy: Select One**

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**Analysis Tools: Select One**

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**Track 4 - Land, Water & Food Security**

**Climate: Select One**

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<tr>
<td>GEOL 0850</td>
<td>Weather and Climate</td>
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<td>Principles of Planetary Climate</td>
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**Biology: Select One**

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<td>BIOL 0160</td>
<td>Plants, Food, and People</td>
</tr>
<tr>
<td>BIOL 0210</td>
<td>Diversity of Life</td>
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<tr>
<td>BIOL 0420</td>
<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>
<td>Coastal Ecology and Conservation</td>
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**Environmental History: Select One**

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<tr>
<td>ANTH 0680</td>
<td>Anthropology of Food</td>
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<tr>
<td>ENVS 1910</td>
<td>The Anthropocene: The Past and Present of Environmental Change</td>
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</table>

**HIST 0270A** From Fire Wielders to Empire Builders: Human Impact on the Global Environment before 1492

**HIST 0270B** From the Columbian Exchange to Climate Change: Modern Global Environmental History

**HIST 1820A** Environmental History

**Policy: Select One**

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**PHP 1700** Current Topics in Environmental Health

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**Track 5 - Sustainability in Development**

**Environment and Development: Select Two**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECON 1410</td>
<td>Urban Economics</td>
</tr>
<tr>
<td>ECON 1530</td>
<td>Health, Hunger and the Household in Developing Countries</td>
</tr>
<tr>
<td>ENVS 1415</td>
<td>Power, Justice, and Climate Change</td>
</tr>
<tr>
<td>ENVS 1555</td>
<td>Urban Agriculture: The Importance of Localized Food Systems</td>
</tr>
<tr>
<td>ENVS 1580</td>
<td>Environmental Stewardship and Resilience in Urban Systems</td>
</tr>
<tr>
<td>ENVS 1755</td>
<td>Globalization and the Environment</td>
</tr>
</tbody>
</table>

**Policy: Select One**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>ENVS 1350</td>
<td>Environmental Economics and Policy</td>
</tr>
<tr>
<td>ENVS 1575</td>
<td>Engaged Climate Policy at the UN Climate Change Talks</td>
</tr>
<tr>
<td>ENVS 1615</td>
<td>Making Connections: The Environmental Policy Process</td>
</tr>
<tr>
<td>ENVS 1925</td>
<td>Energy Policy and Politics</td>
</tr>
</tbody>
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**Analysis Tools: Select One**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>ANTH 1940</td>
<td>Ethnographic Research Methods</td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
</tr>
<tr>
<td>ENVS 1105</td>
<td>Introduction to Environmental GIS</td>
</tr>
<tr>
<td>GEOL 1320</td>
<td>Introduction to Geographic Information Systems for Environmental Applications</td>
</tr>
<tr>
<td>GEOL 1330</td>
<td>Global Environmental Remote Sensing</td>
</tr>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
</tr>
<tr>
<td>SOC 1117</td>
<td>Focus Groups for Market and Social Research</td>
</tr>
<tr>
<td>SOC 1340</td>
<td>Principles and Methods of Geographic Information Systems</td>
</tr>
</tbody>
</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.
The core requirement of ENVS 0490 can be waived for students with an AP exam score of 5 in Environmental Science.

**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. Program

**Track 1 - Air, Climate, and Energy**

Math:

- MATH 0090: Introductory Calculus, Part I

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 1822: Geopolitics of Oil and Energy

Tools (choose one):

- APMA 0650: Essential Statistics
- ECON 1620: Introduction to Econometrics
- ENVS 1105: Introduction to Environmental GIS
- GEOL 1320: Introduction to Geographic Information Systems for Environmental Applications
- GEOL 1330: Global Environmental Remote Sensing

Climate and Thermal Change (choose two):

- ENGN 0720: Thermodynamics
- ENGN 1720: Design of Thermal Engines
- ENGN 1930M: Industrial Design
- GEOL 1370: Environmental Geochemistry
- 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

Evolution: Select One

- BIOL 0480: Evolutionary Biology

Organismic 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**

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
- GNSS 1600: Embodying Feminisms/Feminist Embodiments
- ETHN 1200I: History and Resistance in Representations of Native Peoples
- HIST 1974J: Decolonizing Minds: A People's History of the World
- SOC 1270: Race, Class, and Ethnicity in the Modern World
- SOC 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: Caribbean and Pacific Small States: On the Margins of Development
- 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
- POLS 1440: Security, Governance and Development in Africa
- POLS 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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
<table>
<thead>
<tr>
<th>Track 4 - Land, Water &amp; Food Security</th>
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<tbody>
<tr>
<td>Math: Select One</td>
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<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part 1 ¹</td>
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<tr>
<td>Chemistry: Select One</td>
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<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
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<tr>
<td>Earth/Life Systems: Select Three</td>
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<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
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<tr>
<td>BIOL 1475</td>
<td>Biogeography</td>
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<tr>
<td>BIOL 1480</td>
<td>Terrestrial Biogeochemistry and the Functioning of Ecosystems</td>
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<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
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<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
</tr>
<tr>
<td>GEOL 1310</td>
<td>Global Water Cycle</td>
</tr>
<tr>
<td>GEOL 1370</td>
<td>Environmental Geochemistry</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics</td>
</tr>
<tr>
<td>GEOL 1660</td>
<td>Instrumental Analysis with Environmental Applications</td>
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<tr>
<td>Track 5 - Sustainability in Development</td>
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<tr>
<td>Sociology and Politics: Select One</td>
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<tr>
<td>ENVS 1755</td>
<td>Globalization and the Environment</td>
</tr>
<tr>
<td>POLS 0400</td>
<td>Introduction to International Politics</td>
</tr>
<tr>
<td>SOC 1870K</td>
<td>Demographics and Development</td>
</tr>
<tr>
<td>Critical Perspectives on Development: Select One</td>
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<td>AMST 1700I</td>
<td>Community Engagement with Health and the Environment</td>
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<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems: Environment, Development, and Governance</td>
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<tr>
<td>SOC 1871D</td>
<td>Sophomore Seminar in Sociology of Development</td>
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<tr>
<td>Economic Perspectives: Select Two</td>
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<tr>
<td>ECON 1110</td>
<td>Intermediate Microeconomics</td>
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<tr>
<td>ECON 1340</td>
<td>Economics of Global Warming</td>
</tr>
<tr>
<td>ECON 1355</td>
<td>Environmental Issues in Development Economics</td>
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<tr>
<td>ECON 1510</td>
<td>Economic Development</td>
</tr>
<tr>
<td>ECON 1530</td>
<td>Health, Hunger and the Household in Developing Countries</td>
</tr>
<tr>
<td>ECON 1560</td>
<td>Economic Growth</td>
</tr>
</tbody>
</table>

1. The track requirement of MATH 0090 can be waived for students with an AP exam of 4 or 5 on Calc AB.

### 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 [here](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 [here](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 (https://www.brown.edu/academics/race-ethnicity) (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.

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, Latina/o literary studies and visual culture, indigenous movements, migration and African American cultural studies as well as the intersecting fields of gender and sexuality, queer theory and critical race theory. Students can focus their study on specific populations (e.g. Latina/os, Asian Americans) and choose a thematic interest including such current examples as: "social issues affecting radicalized groups" (students have looked at health disparities or educational inequality); "the study of cultural production or cultural representations;" "the theory of a particular racial or ethnic group;" and "the study of comparative processes of racialization."
Requirements (for students starting with the class of 2020)

ETHN 1000 Introduction to American/Ethnic Studies 1
Any two courses from the ETHN 1200 "Topics in Ethnic Studies" sequence, or similar electives in AMST, as approved by the advisor 2
ETHN 1200B Contemporary Indigenous Education in North America
ETHN 1200D Latinx Literature
ETHN 1750A Immigrant Social Movements: Bridging Theory and Practice
ETHN 1750B Treaty Rights and Food Fights: Eating Local in Indian Country
ETHN 1750D Transpacific Asian American Studies
ETHN 1750E Transpacific Popular Culture

Four courses (at least two in ETHN) that address the student's focus area and that prepare them for the capstone experience. Courses must be approved by the concentration advisor. 4
ETHN 1650 Methods and Approaches in Ethnic Studies 1

American Studies seminar in the AMST 1700 series 1
AMST 1700D Race and Remembering
AMST 1700F American Publics
AMST 1700I Community Engagement with Health and the Environment
AMST 1700K Race in the Americas: A Hemispheric Perspective
ETHN 1900 Ethnic Studies Senior Seminar 1

Total Credits 10

Honors:
Admittance to the Honors Program in Ethnic Studies requires:
1. A 3.5 GPA in concentration courses
2. A 3.0 overall GPA
3. Completion of the standard concentration
4. AMST/ETHN 1800 the Honors Seminar in the sixth semester
5. An Honors Thesis Proposal and an application for the Ethnic Studies Honors Program
6. Two independent studies, taken in the seventh and eighth semester, with the Director of your honors thesis
7. A completed project, delivered the third week of April.
8. A recommendation for honors from both readers.

Students must define their honors project by April 1 or near the end of their sixth semester. The proposal is comprised of a two-page, single-paged project description along with a bibliography of relevant sources. This proposal must be submitted for approval to the faculty along with the application for the Ethnic Studies Honors Program form. The proposal should identify the problem, or question the student will focus on, and suggest approaches and possible hypotheses or outcomes. Students need to work with two professors - a director and a reader. At least one should be Ethnic Studies faculty. The proposal should name a confirmed director (who must sign your application form) and likely second reader (who will need to confirm at the beginning of your seventh semester). If a student wants to work with two professors, neither of whom is Ethnic Studies faculty, then they should have a third 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 during which they will follow through on the plan devised in the spring of their junior year. Students and thesis directors should plan on at least a monthly meeting to discuss the research, writing, and revision of sections of the thesis. In addition to meeting with their director, student should also plan to meet their second 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 the final draft.

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 accomplishment.

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 examples of these courses. Other courses may be approved by the Advisor. 2
AFRI 0090 An Introduction to Africana Studies
A course from the AMST 1610 series, as approved by the concentration advisor
ANTH 1121 From Coyote to Casinos: Native North American Peoples and Cultures
SOC 1270 Race, Class, and Ethnicity in the Modern World
ANTH 1400 Race, Culture, and Ethnic Politics
or ANTH 1420 Ethnicity, Race, and Gender in the Americas

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 0790A Latina/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 0980 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 Latina/o Communities Seminar
ETHN 1870C Native North Americans in the Media: Representations and Self Representations in Film
ETHN 1870D Chicana/o Fiction
ETHN 1870E Queer Latina/o Literature and Theory
ETHN 1870F Eating Cultures
ETHN 1870G Reading Race: Advanced Seminar in Critical Race Theory

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

FREN 0600 Writing and Speaking French II (is accepted for concentration credit)

Required Courses

One (and no more than two) of the following 0720, 820, 1010

FREN 0720A De l'Amour courtois au désir postmoderne
FREN 0720B The French Novel Today
FREN 0820A Identité et différence dans le monde francophone

Any three courses drawn from a list of related courses (as approved by the concentration advisor). 1

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.
Undergraduate Concentrations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FREN 1010A</td>
<td>Littérature et culture: Margins of Modernity</td>
</tr>
<tr>
<td>FREN 1510A</td>
<td>Advanced Oral and Written French: Traduction</td>
</tr>
<tr>
<td>FREN 1510F</td>
<td>Advanced Written and Oral French: Regards sur la France actuelle</td>
</tr>
<tr>
<td>FREN 1510C</td>
<td>Advanced Oral and Written French: A table!</td>
</tr>
<tr>
<td>FREN 1510J</td>
<td>Advanced Oral and Written French: Photographie</td>
</tr>
</tbody>
</table>

**The senior seminar (senior year spring)**

- FREN 1900H: La France en guerre
- FREN 1900K: Extrême droite en France
- FREN 1900L: French-American (Dis)Connections: histoire, société, culture

**Electives**

At least two 1000-level courses offered in the Department of French Studies (excluding FREN 1510 and FREN 1900) are required. Up to two 1000-level courses taught in English offered by French Studies or other departments at Brown are eligible for concentration credit. (Appropriate courses on French or Francophone topics from other departments must be approved by the concentration advisor. Departments in which electives are typically taken include Africana Studies, Anthropology, Art History, Comparative Literature, English, History, Linguistics, Modern Culture and Media.)

At least one course must cover a pre-Revolutionary period

- FREN 1000A: Littérature et intertextualité: du Moyen-Age jusqu'à la fin du XVIIIème s
- FREN 1000B: Littérature et culture: Chevaliers, sorcières, philosophes, et poètes
- FREN 1030A: L'univers de la Renaissance: XVe et XVIe siècles
- FREN 1030B: The French Renaissance: The Birth of Modernity?
- FREN 1040A: Civilite et litterature
- FREN 1040B: Pourvoirs de la scène: le théâtre du XVIIe siècle
- FREN 1040C: Le Grand Siècle à l'écran
- FREN 1040D: Moïrié et son monde
- FREN 1050A: "Family Values": Représentations littéraires de la famille au 18ème siècle
- FREN 1050B: Fictions de l'individu
- FREN 1050D: The Age of Voltaire: Culture, Pensee, Societe
- FREN 1050E: French Lovers: Séduction et libertinage sous l'Ancien Régime
- FREN 1050F: Espace public; espace privé
- FREN 1050G: Le corps des Lumieres
- FREN 1050H: The Age of Voltaire: Lumieres et modernité
- FREN 1100F: Contes et nouvelles du Moyen Age
- FREN 1410I: Sorcellerie et Renaissance: le sort de la sorcière

At least one course a post-Revolutionary period

- FREN 0720F: Paradigms of Difference in the 19th-Century French Novel and Short Story
- FREN 1130E: Le Poétique et le quotidien
- FREN 1060A: Décadence
- FREN 1060B: Gender and the Novel
- FREN 1060D: L'Orient littéraire

FREN 1060E: Genre, sexualité, et le roman du XIXe siècle
- FREN 1060F: Paris: Capital of the 19th Century
- FREN 1070A: Avant-Gardes
- FREN 1070B: Emergent literature: Postcolonial Nations and Cultural Identity
- FREN 1070C: Figures du roman français au XX siècle
- FREN 1070E: Littérature, appartenance et identité
- FREN 1310O: Clichés. L'écriture à l'épreuve de la photographie
- FREN 1330A: Fairy Tales and Culture
- FREN 1330C: French Women Writers
- FREN 1330E: Transatlantic Surrealisms
- FREN 1410D: L'identité française
- FREN 1410R: Images d'une guerre sans nom: The Algerian War in Literature and Film
- FREN 1420C: Gender Theory and Politics in France
- FREN 1610C: Advanced Written French: Atelier d'écriture

Total Credits: 10

1 Or another appropriate course as agreed to by concentration advisor

**Honors**

Students who have received all "A's" 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. For more information, consult the requirements on the Department's website: http://www.brown.edu/academics/french-studies/undergraduate/honors-program

**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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 regular requirements plus completing a two–semester thesis as their capstone project.

For more information, including current cross-listed courses and sample concentration plans, please consult the GNSS concentration webpage (http://www.brown.edu/research/pembroke-center/gender-and-sexuality-studies/undergraduate-concentration-gender-sexuality-studies) at


**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>
</tbody>
</table>

Select three of the following:

<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</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or more advanced)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics (or more advanced)</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations (or more advanced)</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or more advanced)</td>
<td>1</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>
</tbody>
</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1420</td>
<td>Petrology</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0310</td>
<td>Fossil Record</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Estuarine Oceanography</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
<td>1</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>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
<td>1</td>
</tr>
</tbody>
</table>

A field course, or approved substitute

Select four courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1970</td>
<td>Individual Study of Geologic Problems (Senior Research Thesis)</td>
<td>1</td>
</tr>
</tbody>
</table>

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

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or more advanced)</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure (or advanced placement)</td>
<td>1</td>
</tr>
</tbody>
</table>

Select two courses in mathematics and/or physics at the level of:

<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 (or more advanced)</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics (or more advanced)</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering (or more advanced, or courses in data analysis and statistics)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Concentration courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</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>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
<td>1</td>
</tr>
</tbody>
</table>

Select three Biology courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0390</td>
<td>Vertebrate Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Invertebrate Zoology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0415</td>
<td>Microbes in the Environment</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0430</td>
<td>The Evolution of Plant Diversity</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction and Adaptive Responses</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1480</td>
<td>Terrestrial Biogeochemistry and the Functioning of Ecosystems</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1500</td>
<td>Plant Physiological Ecology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
<td>1</td>
</tr>
</tbody>
</table>

Three geological sciences courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0580</td>
<td>Foundations of Physical Hydrology</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Estuarine Oceanography</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1120</td>
<td>Paleoceanography</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1150</td>
<td>Limnology: The Study of Lakes</td>
<td>1</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>
<tr>
<td>GEOL 1380</td>
<td>Environmental Stable Isotopes</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits** 14

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**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**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or more advanced)</td>
<td>1</td>
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<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics (or more advanced)</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
</tbody>
</table>

Select two courses in mathematics at the level of:

<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 (or more advanced)</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or more advanced)</td>
<td>2</td>
</tr>
</tbody>
</table>

**Fourteen (14) concentration courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</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>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
<td>1</td>
</tr>
</tbody>
</table>

Three biology courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0390</td>
<td>Vertebrate Evolution and Diversity</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Invertebrate Zoology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0415</td>
<td>Microbes in the Environment</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0430</td>
<td>The Evolution of Plant Diversity</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Inquiry in Plant Biology: Analysis of Plant Growth, Reproduction and Adaptive Responses</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1480</td>
<td>Terrestrial Biogeochemistry and the Functioning of Ecosystems</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1500</td>
<td>Plant Physiological Ecology</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
<td>1</td>
</tr>
</tbody>
</table>

Three geological sciences courses from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0580</td>
<td>Foundations of Physical Hydrology</td>
<td>1</td>
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<tr>
<td>GEOL 1110</td>
<td>Estuarine Oceanography</td>
<td>1</td>
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<tr>
<td>GEOL 1120</td>
<td>Paleoceanography</td>
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<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
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<tr>
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<td>Limnology: The Study of Lakes</td>
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<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>
<tr>
<td>GEOL 1380</td>
<td>Environmental Stable Isotopes</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics</td>
<td>1</td>
</tr>
</tbody>
</table>

Three additional courses from upper level geological sciences, mathematics, or supporting sciences with approval from the concentration advisor:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1970</td>
<td>Individual Study of Geologic Problems (Senior Research Thesis)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits** 19

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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-

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 6 geoscience courses, 3 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses.

Standard program for the A.B. degree

Recommended for students seeking a liberal education and interested in applying physical and chemical principles toward an understanding of Earth history, Earth processes, and environmental and resource issues.

Basic supporting science courses

Select two courses in mathematics at the level of:

- MATH 0090 Introductory Calculus, Part I (or more advanced) 2
- MATH 0100 Introductory Calculus, Part II (or more advanced) 2

Select two courses in mathematics at the level of:

- CHEM 0330 Equilibrium, Rate, and Structure 1
- PHYS 0050 Foundations of Mechanics (or a more advanced course, or advanced placement) 1
- or ENGN 0030 Introduction to Engineering 1

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
- Three additional chemistry courses 3
- Select one of the following Series: 2
  - GEOL 1410 Mineralogy
  - GEOL 1420 Physical Processes in Geology
  - GEOL 1370 Environmental Geochemistry
- Two additional courses from upper level geological sciences, math, or supporting sciences with approval from the department concentration advisor. 2

Total Credits 14

Standard program for the Sc.B. degree

This program is recommended for students interested in graduate study and careers in geochemistry and related fields.

Basic Supporting Science Courses:

Select two courses in mathematics at the level of:

- MATH 0090 Introductory Calculus, Part I (or more advanced) 2
- MATH 0100 Introductory Calculus, Part II (or more advanced) 2

Select two courses in mathematics at the level of:

- CHEM 0330 Equilibrium, Rate, and Structure 1
- PHYS 0050 Foundations of Mechanics and Foundations of Electromagnetism and Modern Physics 1
- or ENGN 0030 Introduction to Engineering and Dynamics and Vibrations or a more advanced course 1

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

Three from:

- CHEM 0350 Organic Chemistry
- CHEM 0500 Inorganic Chemistry
- CHEM 1060 Advanced Inorganic Chemistry
- CHEM 1140 Physical Chemistry: Quantum Chemistry
- CHEM 1150 Physical Chemistry: Thermodynamics and Statistical Mechanics

Geochemistry/Organic Option:

- GEOL 0220 Physical Processes in Geology
- GEOL 0230 Geochemistry: Earth and Planetary Materials and Processes
- GEOL 0240 Earth: Evolution of a Habitable Planet
- GEOL 1130 Ocean Biogeochemical Cycles
- GEOL 1370 Environmental Geochemistry
- GEOL 1410 Mineralogy

Plus one from:

- GEOL 1240 Stratigraphy and Sedimentation
- GEOL 1330 Global Environmental Remote Sensing
- GEOL 1380 Environmental Stable Isotopes

Three Chemistry courses:

- CHEM 0350 Organic Chemistry
- CHEM 0360 Organic Chemistry

Plus one additional chemistry course

Three additional courses from upper level geological sciences, mathematics, or supporting sciences with approval of the departmental concentration advisor. 3

GEOL 1970 Individual Study of Geologic Problems 1

Total Credits 19

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 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses. The ScB degree requires a total of 20 courses, including 8 geoscience courses, 4 physics or engineering courses, and 3 math and applied courses.

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1610</td>
<td>Solid Earth Geophysics (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
<tr>
<td>And select two of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1420</td>
<td>Petrology</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1620</td>
<td>Continuum Physics of the Solid Earth (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Climate Science Theme

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1350</td>
<td>Weather and Climate</td>
<td>1</td>
</tr>
<tr>
<td>And select two from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1310</td>
<td>Global Water Cycle (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1430</td>
<td>Principles of Planetary Climate (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1520</td>
<td>Ocean Circulation and Climate</td>
<td>1</td>
</tr>
</tbody>
</table>

#### 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

#### 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
- **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.

#### 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):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology (solid Earth geophysics theme)</td>
<td>1</td>
</tr>
<tr>
<td>And choose two from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1310</td>
<td>Global Water Cycle (climate science theme)</td>
<td>1</td>
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<tr>
<td>GEOL 1430</td>
<td>Principles of Planetary Climate (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1520</td>
<td>Ocean Circulation and Climate</td>
<td>1</td>
</tr>
<tr>
<td>or GEOL 0350</td>
<td>Mathematical Methods of Fluid and Solid Geophysics and Geology</td>
<td>1</td>
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</table>

#### Or a field course

**Climate Science Theme**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet (climate science theme)</td>
<td>1</td>
</tr>
<tr>
<td>And choose one:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1520</td>
<td>Ocean Circulation and Climate</td>
<td>1</td>
</tr>
<tr>
<td>And choose three from the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1310</td>
<td>Global Water Cycle</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1330</td>
<td>Global Environmental Remote Sensing</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1520</td>
<td>Ocean Circulation and Climate</td>
<td>1</td>
</tr>
<tr>
<td>or a field or sea course</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **PHYS 0050**: Foundations of Mechanics
- or **PHYS 0070**: Analytical Mechanics
- or **ENGN 0040**: Dynamics and Vibrations
- **PHYS 0060**: Foundations of Electromagnetism and Modern Physics

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

**Program Requirements**

**REQUIRED BACKGROUND:**

Four (4) courses including:

- MATH 0090 Introductory Calculus, Part I (or equivalent placement) 1
- OR
  - MATH 0050 Analytic Geometry and Calculus
  - & MATH 0060 and Analytic Geometry and Calculus
  - OR
  - MATH 0100 Introductory Calculus, Part II
  - or MATH 0170 Advanced Placement Calculus

- CHEM 0330 Equilibrium, Rate, and Structure 1
- BIOL 0200 The Foundation of Living Systems 1

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:

- BIOL 0470 Genetics 5
- OR
  - BIOL 0480 Evolutionary Biology
  - & BIOL 0500 and Cell and Molecular Biology
  - OR
  - BIOL 0480 Evolutionary Biology
  - & BIOL 0510 and Introductory Microbiology
  - OR

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0480 &amp; BIOL 0280</td>
<td>Evolutionary Biology and Biochemistry</td>
</tr>
</tbody>
</table>

Select one course in structure/function/development such as:
- BIOL 0400: Biological Design: Structural Architecture of Organisms
- BIOL 0800: Principles of Physiology
- BIOL 1310: Developmental Biology
- BIOL 1800: Animal Locomotion
- BIOL 1880: Comparative Biology of the Vertebrates

NEUR 0010: The Brain: An Introduction to Neuroscience

One course in organismal/population biology such as:
- BIOL 0380: The Ecology and Evolution of Infectious Disease
- BIOL 0410: Invertebrate Zoology
- BIOL 0420: Principles of Ecology
- BIOL 0480: Evolutionary Biology
- BIOL 1470: Conservation Biology
- BIOL 1880: Comparative Biology of the Vertebrates
- ENVS 0490: Environmental Science in a Changing World

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 are 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.

**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, including one with the WRIT designation.
- Select at least three 700-level courses in Hispanic Studies, including one 700-level course in Hispanic Studies at Brown, including one with the WRIT designation.
- Between one and three 700-level courses in Hispanic Studies, including one course can be taken S/NC.
- Up to two courses outside of the Department of Hispanic Studies may 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.

**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.

**CAPSTONE:** See https://www.brown.edu/academics/biology/undergraduate-education/undergraduate/honors-and-human-biology for more information on the Capstone Activity.

**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 across 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.

**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.
Thematic fields of focus include but are not restricted to:

- Law and Society
- Race and Ethnicity
- Science, Technology, Environment and Medicine (STEAM)
- Urban History

Examples of transnational foci include:

- The Ancient World
- The Early Modern Atlantic World
- Africa and the Diaspora
- The Mediterranean World from Antiquity to the Middle Ages
- The Pacific World

**Geographic Distribution:** Concentrators must take at least two courses in three of the following geographic areas:

- 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/1NT5f7zAtqXDcvZxTdsdSeSmM5Dv28ke6550tbBmE/edit?#gid=2138711521).

**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.

**Capstone Seminar:** All concentrators must complete at least one capstone seminar (HIST 1960s and HIST 1970s series and select HIST 1980s courses). 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 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.

**Transferring Courses:** The History Department encourages students to take history courses at other institutions, either in the United States or abroad, as well as history-oriented courses in other departments and programs at Brown. Students may apply two courses taken in other departments/programs at Brown to the ten-course minimum for the History concentration. Students who spend one semester at another institution may apply to their concentration a maximum of two courses from other departments or institutions, and those who spend more than one semester at another institution may apply to their concentration a third course transferred from another institution.

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 and then get approval from a concentration advisor.

**Regular Consultation:** Students are strongly urged to consult regularly with their concentration advisor or a department advisor about their 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 Africa, the Middle East, the Americas, and Asia. While some courses explore special topics, others concentrate on the history of a particular country (e.g. China or Brazil) or period of time (e.g. Antiquity or the 20th century). By taking advantage of our diverse course offerings, students can engage in and develop broad perspectives on the past and the present.

**Prospective concentrators should visit the History site (https://www.brown.edu/academics/history/undergraduate/history-concentration) and visit the office hours of their prospective concentration advisor (https://www.brown.edu/academics/history/undergraduate/history-concentration/concentration-advisors) (assigned according to student surname).**

**Concentration Requirements**

**Basic requirement:** A minimum of 10 courses, at least 8 of which must be courses taught by a Brown University History Department faculty member (https://www.brown.edu/academics/history/faculty) (including their cross-listed courses) and/or courses offered by the Brown History Department (such as those taught by Visiting or Adjunct Professors). Transfer students or study-abroad students who have spent a year or more at another institution must have at least 7 of 10 history courses taught by Brown History faculty or otherwise offered through the Brown History Department.

**Summary**

| Courses in the "Premodern" era (P) | 2 |
| 2 Courses in 3 different geographic regions | 6 |
| Field of focus | 4 |
| Capstone Seminar | 1 |
| Any combination of courses that fulfill the four requirements above for a total number of 10 courses | | |
| Honors (optional) 3 additional courses related to writing a thesis (one of which, HIST 1992, can count towards your 10 concentration requirements) | 3 |

**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.

**Field of focus:** In History, concentrators choose or create their own "track," rather than having to select an existing track. The field of focus must include a minimum of four courses, and it may be: geographical (such as Latin America); geographical and chronological (such as Modern North America); or transnational (such as ancient world); or thematic (such as urban history). Students who choose North America or Europe must also choose a chronological focus (i.e. Early Modern Europe. Fields in Latin America, Africa, East Asia, or Middle East/South Asia do not require a chronological definition. 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.

Thematic fields of focus include but are not restricted to:

- Comparative Colonialism
- Gender and Sexuality

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

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>150's: Thematic Courses that Cut Across Time and Place</td>
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</tr>
<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>
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**Gateway Lecture Courses**

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<th>Course Code</th>
<th>Course Title</th>
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<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>
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<tr>
<td>HIST 0214</td>
<td>Histories of East Asia: Japan</td>
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<tr>
<td>HIST 0215</td>
<td>Modern Korea: Contending with Modernity</td>
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<td>HIST 0218</td>
<td>The Making of Modern East Asia</td>
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<td>HIST 0228A</td>
<td>War and Peace in Modern Europe</td>
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<tr>
<td>HIST 0232</td>
<td>Clash of Empires in Latin America</td>
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<td>HIST 0233</td>
<td>Colonial Latin America</td>
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<tr>
<td>HIST 0234</td>
<td>Modern Latin America</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 in Global Perspective: History, Law, and Popular Culture</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 Wielders to Empire Builders: Human Impact on the Global Environment before 1492</td>
</tr>
<tr>
<td>HIST 0270B</td>
<td>From the Columbian Exchange to Climate Change: Modern Global Environmental History</td>
</tr>
<tr>
<td>HIST 0276</td>
<td>A Global History of the Atomic Age</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>
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**seminar courses**

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<tbody>
<tr>
<td>First-Year Seminars</td>
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<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>
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<td>HIST 0521A</td>
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For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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**Honors (OPTIONAL):**

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 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 ten 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 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 0040. 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIAA 0010</td>
<td>A Global History of Art and Architecture</td>
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<tr>
<td>HIAA 0011</td>
<td>Introduction to the History of Architecture and Urbanism</td>
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<tr>
<td>HIAA 0013</td>
<td>Introduction to Indian Art</td>
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<tr>
<td>HIAA 0021</td>
<td>Arts of Asia</td>
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<tr>
<td>HIAA 0022</td>
<td>The Art of Enlightenment</td>
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<tr>
<td>HIAA 0031</td>
<td>Pre-Islamic Empires of Iran</td>
</tr>
<tr>
<td>HIAA 0040</td>
<td>Introduction to Medieval Art and Architecture</td>
</tr>
<tr>
<td>HIAA 0041</td>
<td>The Architectures of Islam</td>
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<tr>
<td>HIAA 0042</td>
<td>Islamic Art and Architecture</td>
</tr>
<tr>
<td>HIAA 0061</td>
<td>Baroque</td>
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<tr>
<td>HIAA 0062</td>
<td>Dutch and Flemish Art: Visual Culture of the Netherlands in the Seventeenth Century</td>
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<tr>
<td>HIAA 0070</td>
<td>Introduction to American Art: The 19th Century</td>
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<tr>
<td>HIAA 0075</td>
<td>Introduction to the History of Art: Modern Photography</td>
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<tr>
<td>HIAA 0077</td>
<td>Revolutions, Illusions, Impressions: A History of Nineteenth-Century Art</td>
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<tr>
<td>HIAA 0081</td>
<td>Architecture of the House Through Space and Time</td>
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<tr>
<td>HIAA 0820</td>
<td>Art and Technology from Futurism to Hacktivism</td>
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<tr>
<td>HIAA 0889</td>
<td>Contemporary Photography</td>
</tr>
<tr>
<td>HIAA 0910</td>
<td>Introduction to Architectural Design Studio</td>
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<tr>
<td>HIAA 0321</td>
<td>Toward a Global Late Antiquity:200-800 CE</td>
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<tr>
<td>HIAA 0340</td>
<td>Roman Art and Architecture: From Julius Caesar to Hadrian</td>
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<tr>
<td>HIAA 0400</td>
<td>Early Christian, Jewish, and Byzantine Art and Architecture</td>
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<td>HIAA 0440</td>
<td>Gothic Art and Architecture</td>
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<td>HIAA 0460</td>
<td>Muslims, Jews and Christians in Medieval Iberia</td>
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<td>Word, Image and Power in Renaissance Italy</td>
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<tr>
<td>HIAA 0600</td>
<td>From Van Eyck to Bruegel</td>
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<tr>
<td>HIAA 0630</td>
<td>Cultural History of the Netherlands in a Golden Age and a Global Age</td>
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<tr>
<td>HIAA 0660</td>
<td>Giotto to Watteau: Introduction to the Art of Europe from Renaissance to French Revolution</td>
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<tr>
<td>HIAA 0710</td>
<td>The Other History of Modern Architecture</td>
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<td>HIAA 0770</td>
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<td>HIAA 0801</td>
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<td>HIAA 0810</td>
<td>20th Century Sculpture</td>
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<tr>
<td>HIAA 0830</td>
<td>Revolutionary Forms: 100 Years of Art and Politics in Latin America</td>
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<tr>
<td>HIAA 0840</td>
<td>History of Rhode Island Architecture</td>
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<td>HIAA 0850</td>
<td>Modern Architecture</td>
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<td>HIAA 0860</td>
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<tr>
<td>HIAA 0861</td>
<td>City and Cinema</td>
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<td>HIAA 0870</td>
<td>20th Century British Art: Edwardian to Contemporary</td>
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<td>City and Cinema</td>
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</table>

Two core seminar courses, numbered between HIAA 1020 and HIAA 1930

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<thead>
<tr>
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<tbody>
<tr>
<td>HIAA 1020</td>
<td>Topics in East Asian Art</td>
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<tr>
<td>HIAA 1090</td>
<td>Writing About the Arts</td>
</tr>
<tr>
<td>HIAA 1101A</td>
<td>Illustrating Knowledge</td>
</tr>
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</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HIAA 1101B</td>
<td>Seeing and Writing on Contemporary Arts</td>
</tr>
<tr>
<td>HIAA 1120B</td>
<td>History of Urbanism, 1300-1700</td>
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<tr>
<td>HIAA 1120C</td>
<td>History of Western European Urbanism 1200-1600</td>
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<tr>
<td>HIAA 1105</td>
<td>Otherworldly and Other Worlds: Representing the Unseen in Early Modern Europe</td>
</tr>
<tr>
<td>HIAA 1150C</td>
<td>El Greco and Velazquez</td>
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<tr>
<td>HIAA 1150D</td>
<td>El Greco and the Golden Age of Spanish Painting</td>
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<tr>
<td>HIAA 1170B</td>
<td>Twentieth-Century American Painting</td>
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<tr>
<td>HIAA 1181</td>
<td>Prefabrication and Architecture</td>
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<tr>
<td>HIAA 1182</td>
<td>Spaces and Institutions of Modernity</td>
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<tr>
<td>HIAA 1200A</td>
<td>Ancient Art in the RISD Collection</td>
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<tr>
<td>HIAA 1200D</td>
<td>Pompeii</td>
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<tr>
<td>HIAA 1201</td>
<td>Brushwork: Chinese Painting in Time</td>
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<tr>
<td>HIAA 1300</td>
<td>Topics in Classical Art and Architecture</td>
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<td>HIAA 1301</td>
<td>The Palaces of Ancient Rome</td>
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<tr>
<td>HIAA 1302</td>
<td>Women and Families in the Ancient Mediterranean</td>
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<tr>
<td>HIAA 1303</td>
<td>Pompeii: Art, Architecture, and Archaeology in the Lost City</td>
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<tr>
<td>HIAA 1304</td>
<td>Spectacle! Games, Gladiators, Performance, and Ceremony in the Roman World</td>
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<td>HIAA 1310</td>
<td>Topics in Hellenistic Art</td>
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<tr>
<td>HIAA 1400F</td>
<td>Research Seminar Gothic Art</td>
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<tr>
<td>HIAA 1410A</td>
<td>Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent</td>
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<tr>
<td>HIAA 1410B</td>
<td>Painting in Mughal India 1550-1650</td>
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<tr>
<td>HIAA 1430A</td>
<td>The Visual Culture of Medieval Women</td>
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<tr>
<td>HIAA 1440D</td>
<td>The Gothic Cathedral</td>
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<td>HIAA 1440F</td>
<td>Architectural Reuse: The Appropriation of the Past</td>
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<tr>
<td>HIAA 1440B</td>
<td>Architecture of Solitude: The Medieval Monastery</td>
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<td>HIAA 1460</td>
<td>Topics in Medieval Archaeology</td>
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<tr>
<td>HIAA 1550B</td>
<td>Topics in the Early History of Printmaking: Festival and Carnival</td>
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<td>HIAA 1550A</td>
<td>Prints and Everyday Life in Early Modern Europe</td>
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<tr>
<td>HIAA 1560A</td>
<td>Italy and the Mediterranean</td>
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<td>HIAA 1560B</td>
<td>Mannerism</td>
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<td>HIAA 1560C</td>
<td>Renaissance Venice and the Veneto</td>
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<tr>
<td>HIAA 1560D</td>
<td>Sienna from Simone Martini to Beccafumi</td>
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<tr>
<td>HIAA 1560E</td>
<td>The Arts of Renaissance Courts</td>
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<tr>
<td>HIAA 1560F</td>
<td>Topics in Italian Visual Culture: The Visible City, 1400-1800</td>
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<tr>
<td>HIAA 1600A</td>
<td>Bosch and Bruegel: Art Tums the World Upside Down</td>
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<tr>
<td>HIAA 1600B</td>
<td>Caravaggio</td>
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<tr>
<td>HIAA 1600C</td>
<td>Italian Baroque Painting and Sculpture</td>
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<tr>
<td>HIAA 1600D</td>
<td>The Art of Peter Paul Rubens</td>
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<tr>
<td>HIAA 1600E</td>
<td>The World Turned Upside Down</td>
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<tr>
<td>HIAA 1600F</td>
<td>Antwerp: Art and Urban History</td>
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<tr>
<td>HIAA 1600G</td>
<td>Art + Religion in Early Modern Europe</td>
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<tr>
<td>HIAA 1600H</td>
<td>Comedy in Netherlandish Art From Hieronymus Bosch to Jan Steen</td>
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<tr>
<td>HIAA 1600I</td>
<td>Collections and Visual Knowledge in Early Modern Europe: 1400-1800</td>
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<tr>
<td>HIAA 1600J</td>
<td>Rembrandt</td>
</tr>
<tr>
<td>HIAA 1650A</td>
<td>About Face: English Portraiture: 1600-1800</td>
</tr>
<tr>
<td>HIAA 1650B</td>
<td>Visualizing Revolutionary Bodies 1785-1815</td>
</tr>
<tr>
<td>HIAA 1650C</td>
<td>Visual Culture and the Production of Identity in the Atlantic World, 1700-1815</td>
</tr>
<tr>
<td>HIAA 1650D</td>
<td>Souvenirs: Remembering the Pleasures and Perils of the Grand Tour</td>
</tr>
<tr>
<td>HIAA 1711</td>
<td>Black and White: Imagining Africans and African Americans in Visual Culture</td>
</tr>
<tr>
<td>HIAA 1770</td>
<td>Architecture and Visual Culture of Empire</td>
</tr>
<tr>
<td>HIAA 1811</td>
<td>Possible Futures: Art and the Social Network before the Internet (1950-1979)</td>
</tr>
<tr>
<td>HIAA 1850A</td>
<td>Frank Lloyd Wright</td>
</tr>
<tr>
<td>HIAA 1850D</td>
<td>Film Architecture</td>
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<tr>
<td>HIAA 1850E</td>
<td>Architecture, Light and Urban Screens</td>
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<tr>
<td>HIAA 1850G</td>
<td>Contemporary American Urbanism: City Design and Planning, 1945-2000</td>
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<tr>
<td>HIAA 1850H</td>
<td>Berlin: Architecture, Politics and Memory</td>
</tr>
<tr>
<td>HIAA 1870</td>
<td>Cannibalism, Inversion, and Hybrityd: Creative Disobedience in the Americas</td>
</tr>
<tr>
<td>HIAA 1890E</td>
<td>SoCal: Art in Los Angeles, 1945-Present</td>
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<tr>
<td>HIAA 1890G</td>
<td>Contemporary Art of Africa and the Diaspora</td>
</tr>
<tr>
<td>HIAA 1910A</td>
<td>Providence Architecture</td>
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<tr>
<td>HIAA 1910B</td>
<td>Project Seminar: The Architecture of Bridges</td>
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<tr>
<td>HIAA 1910D</td>
<td>Water and Architecture</td>
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<tr>
<td>HIAA 1910E</td>
<td>Project Seminar for Architectural Studies Concentrators</td>
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<tr>
<td>HIAA 1910F</td>
<td>City Senses: Urbanism Beyond Visual Spectacle</td>
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<tr>
<td>HIAA 1920</td>
<td>Individual Study Project in the History of Art and Architecture</td>
</tr>
<tr>
<td>HIAA 1930</td>
<td>The History and Methods of Art Historical Interpretation</td>
</tr>
<tr>
<td>HIAA 1990</td>
<td>Honors Thesis</td>
</tr>
</tbody>
</table>

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 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 design set at Brown University.

Four lecture courses. These courses will be numbered between 1
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.

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIAA 0040</td>
<td>Introduction to Medieval Art and Architecture</td>
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<tr>
<td>HIAA 0042</td>
<td>Islamic Art and Architecture</td>
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<tr>
<td>HIAA 0031</td>
<td>Pre-Islamic Empires of Iran</td>
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<tr>
<td>HIAA 0041</td>
<td>The Architectures of Islam</td>
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<td>HIAA 0061</td>
<td>Baroque</td>
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<td>HIAA 0062</td>
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<td>City and Cinema</td>
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</table>

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

A project seminar from the HIAA 1910 series. This must be taken in the junior or senior year.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
HIAA 1910A Providence Architecture
One studio art course in design\footnote{1}
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. \footnote{4, 5}

Total Credits 10
\footnote{1} The two seminars cannot be replaced with independent study, honors thesis, or classes taken in other departments or universities.
\footnote{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.
\footnote{3} The studio course may be taken at Brown, RISD, Harvard Career Discovery and similar six week + summer programs.
\footnote{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.
\footnote{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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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-crccrs); 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-icera)).

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. The International Relations concentration will only accept new declarations through the class of 2023. Students in any class year can learn more about the new concentration (https://watson.brown.edu/iapa/about/faqs) in International and Public Affairs.

### Requirements

The IR concentration will be available to students graduating through the class of 2023.

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 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
- **POLS 0400**: Introduction to International Politics
- **SOC 1620**: Globalization and Social Conflict

Plus 1 History course from the following:

- **HIST 0150A**: History of Capitalism
- **HIST 0244**: Understanding the Middle East: 1600s to the Present

### Track Requirements (five courses distributed between the sub-themes): 5

#### Governance and Diplomacy (two or three courses):

- **CSCI 1800**: Cybersecurity and International Relations
- **FREN 1900H**: La France en guerre
- **HIST 0150C**: Locked Up: A Global History of Prison and Captivity
- **HMAN 1971T**: Law, Nationalism, and Colonialism
- **INTL 1443**: History of American Intervention
- **INTL 1700**: International Law
- **INTL 1802Q**: Iran and the Islamic Revolution
- **INTL 1802V**: Diplomacy, Economics & Influence
- **INTL 1804B**: Computers, Freedom and Privacy: Current Topics in Law and Policy
- **POLS 1020**: Politics of the Illicit Global Economy
- **POLS 1220**: Politics in Russia and Eastern Europe
- **POLS 1380**: Ethnic Politics and Conflict
- **POLS 1390**: Global Governance
- **POLS 1440**: Security, Governance and Development in Africa
- **POLS 1500**: The International Law and Politics of Human Rights
- **POLS 1560**: American Foreign Policy
- **POLS 1820H**: Contraband Capitalism: States and Illegal Global Markets
- **POLS 1821M**: War in Film and Literature
- **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

#### Society (two or three courses):

- **AMST 1600C**: The Anti-Trafficking Savior Complex: Saints, Sinners, and Modern-Day Slavery
- **ANTH 1224**: Human Trafficking, Transnationalism, and the Law
- **ANTH 1251**: Violence and the Media
- **ANTH 1910G**: Senior Seminar: Politics and Symbols
- **FREN 1900H**: La France en guerre
- **HIST 0150D**: Refugees: A Twentieth-Century History
- **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 1802W**: International Journalism: Foreign Reporting in Practice
- **INTL 1803A**: The International Politics of Organized Crime
- **INTL 1803K**: Media Wars: The Middle East
- **INTL 1803L**: Humanitarianism in Uniform
- **INTL 1803M**: Reassessing Contentious Politics, and Social Movements
- **POLS 1380**: Ethnic Politics and Conflict
- **POLS 1821L**: International Relations of Russia, Europe and Asia
- **POLS 1823G**: Women and War

#### Research Methods

- **HIST 1121**: The Modern Chinese Nation: An Idea and Its Limits

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Prior to 7th semester. Quantitative or qualitative course from the following approved list.

**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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</thead>
<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>POLS 0400</td>
<td>Introduction to International Politics</td>
</tr>
<tr>
<td>SOC 1620</td>
<td>Globalization and Social Conflict</td>
</tr>
</tbody>
</table>

Plus 1 History course from the following:

<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 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>
</tbody>
</table>

**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:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1910G</td>
<td>Senior Seminar: Politics and Symbols</td>
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<tr>
<td>FREN 1900H</td>
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<td>INTL 1802V</td>
<td>Diplomacy, Economics &amp; Influence</td>
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<tr>
<td>INTL 1802W</td>
<td>International Journalism: Foreign Reporting in Practice</td>
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<td>INTL 1802Y</td>
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</tr>
<tr>
<td>INTL 1803G</td>
<td>Global Women's Issues: Investing in women as strategy for sustainable growth and global development</td>
</tr>
<tr>
<td>INTL 1803</td>
<td>Risk, Regulation and the Comparative Politics of Finance</td>
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<tr>
<td>INTL 1803A</td>
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<td>INTL 1803M</td>
<td>Reassessing Contentious Politics, and Social Movements</td>
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<tr>
<td>INTL 1803N</td>
<td>The Politics of Food Security</td>
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<td>International Relations of Russia, Europe and Asia</td>
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<td>Technology and International Politics</td>
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<td>POLS 1824B</td>
<td>Post Conflict Politics</td>
</tr>
</tbody>
</table>

**Total Credits**

14

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Students may choose from the following:

- Must be taken senior year.
- Must incorporate language skills.

**Capstone Course, from the following options:**

- Three years university study or equivalent. Must correspond to region.
- Must be taken senior year. Must incorporate language skills.

### Research Methods

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>POLS 1822I</td>
<td>Geopolitics of Oil and Energy</td>
</tr>
<tr>
<td>POLS 1822M</td>
<td>Capitalism: For and Against</td>
</tr>
<tr>
<td>POLS 1824J</td>
<td>Culture, Identity and Development</td>
</tr>
</tbody>
</table>

### Prior to 7th semester:

- Quantitative or qualitative course from the following approved list:
  - ANTH 1151 Ethnographies of the Muslim Middle East
  - ANTH 1940 Ethnographic Research Methods
  - APMA 0650 Essential Statistics
  - APMA 1650 Statistical Inference I
  - CLPS 0900 Statistical Methods
  - ECON 1620 Introduction to Econometrics
  - ECON 1630 Mathematical Econometrics I
  - EDUC 1100 Introduction to Qualitative Research Methods
  - EDUC 1110 Introductory Statistics for Education Research and Policy Analysis
  - POLS 1600 Political Research Methods
  - SOC 1020 Methods of Social Research
  - SOC 1100 Introductory Statistics for Social Research

### 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.

### Course Code, from the following options:

- Must be taken senior year. Must incorporate language skills.

### Capstone Course

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</tr>
<tr>
<td>POLS 1823E</td>
<td>Global Justice</td>
</tr>
</tbody>
</table>

### 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 have some background in Italian language. However, it is possible to concentrate in Italian studies without having studied the language before coming to Brown, although doing so requires an early start. After fulfilling the language requirement by completing up to Italian 0600 (or the equivalent), students enroll in a variety of advanced courses, reflecting the interdisciplinary nature of the concentration. Junior concentrators often study abroad in the Brown Program in Bologna. All senior concentrators participate in the "senior conference" by delivering brief presentations on academic topics of their choice in Italian Studies. Concentrators might also pursue capstone research, writing, or multimedia projects. The concentration requires that students demonstrate proficiency in the Italian language by completing up to ITAL 0600 (or the equivalent in Bologna). ITAL 0400 is the first language course that counts toward the ten required courses for the concentration (except for students who place out of ITAL 0400, who will need to complete a total of nine courses). At least four of the ten courses should be taken in Italian.

### ITALIAN STUDIES COURSES

- Must be taken senior year. Must incorporate language skills.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAL 0550</td>
<td>Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany (HIAA 0550)</td>
</tr>
<tr>
<td>ITAL 0560</td>
<td>Constructing the Eternal City: Popes and Pilgrims in Renaissance Rome (HIAA 0560)</td>
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<tr>
<td>ITAL 0600</td>
<td>Advanced Italian II</td>
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<tr>
<td>ITAL 0750</td>
<td>Truth on Trial: Justice in Italy</td>
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<tr>
<td>ITAL 0751</td>
<td>When Leaders Lie: Machiavelli in International Context</td>
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<tr>
<td>ITAL 0950</td>
<td>Introduction to Italian Cinema: Italian Film and History</td>
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<tr>
<td>ITAL 0951</td>
<td>The Grand Tour, or a Room with a View: Italy and the Imagination of Others</td>
</tr>
<tr>
<td>ITAL 0981</td>
<td>When Leaders Lie: Machiavelli in International Context</td>
</tr>
<tr>
<td>ITAL 0985</td>
<td>Visions of War: Representing Italian Modern Conflicts</td>
</tr>
<tr>
<td>ITAL 1000A</td>
<td>Luigi Pirandello: Masks and Society</td>
</tr>
<tr>
<td>ITAL 1000B</td>
<td>Reading Recent Italian Fiction</td>
</tr>
<tr>
<td>ITAL 1000C</td>
<td>Nord - Sud e Identità Italiana</td>
</tr>
<tr>
<td>ITAL 1000D</td>
<td>Italian National Identity: Criticisms and Crises</td>
</tr>
<tr>
<td>ITAL 1000E</td>
<td>Masterpieces of Italian Cinema - Capolavori del cinema italiano</td>
</tr>
<tr>
<td>ITAL 1000F</td>
<td>20th Century Italian Poetry</td>
</tr>
<tr>
<td>ITAL 1000G</td>
<td>Italian Identity</td>
</tr>
<tr>
<td>ITAL 1010</td>
<td>Dante in English Translation: Dante's World and the Invention of Modernity</td>
</tr>
<tr>
<td>ITAL 1020</td>
<td>Boccaccio's Decameron</td>
</tr>
<tr>
<td>ITAL 1029</td>
<td>World Cinema in a Global Context</td>
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<td>ITAL 1030A</td>
<td>Fellini</td>
</tr>
<tr>
<td>ITAL 1310</td>
<td>Literature of the Middle Ages</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### Undergraduate Concentrations

<table>
<thead>
<tr>
<th>COURSE CODE</th>
<th>COURSE TITLE</th>
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<tbody>
<tr>
<td>ITAL 1320</td>
<td>Great Authors and Works of Italian Renaissance</td>
</tr>
<tr>
<td>ITAL 1340</td>
<td>The Panorama and 19th-Century Visual Culture</td>
</tr>
<tr>
<td>ITAL 1350A</td>
<td>Transmedia Storytelling and the New Italian Epic.</td>
</tr>
<tr>
<td>ITAL 1350B</td>
<td>Non Fiction</td>
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<tr>
<td>ITAL 1360</td>
<td>Renaissance Italy</td>
</tr>
<tr>
<td>ITAL 1380</td>
<td>Italy: From Renaissance to Enlightenment</td>
</tr>
<tr>
<td>ITAL 1390</td>
<td>Modern Italy</td>
</tr>
<tr>
<td>ITAL 1400A</td>
<td>&quot;Italian (Mediterranean) Orientalisms&quot; Major Italian Writers and Filmmakers</td>
</tr>
<tr>
<td>ITAL 1400B</td>
<td>Fascism and Antifascism: Culture and Literature between the Two World Wars</td>
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<tr>
<td>ITAL 1400C</td>
<td>Literature and Adolescence</td>
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<tr>
<td>ITAL 1400D</td>
<td>Photography and Literature: Italian Examples of an Uncanny Relationship</td>
</tr>
<tr>
<td>ITAL 1400F</td>
<td>Twentieth Century Italian Culture</td>
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<tr>
<td>ITAL 1400H</td>
<td>Early Modern Italy</td>
</tr>
<tr>
<td>ITAL 1400I</td>
<td>Rituals, Myths and Symbols</td>
</tr>
<tr>
<td>ITAL 1400J</td>
<td>The Many Faces of Casanova</td>
</tr>
<tr>
<td>ITAL 1400K</td>
<td>Italy as Other</td>
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<tr>
<td>ITAL 1400L</td>
<td>History of Masculinity and Femininity from the Unification to 1968</td>
</tr>
<tr>
<td>ITAL 1400M</td>
<td>Giorgio Agamben and Radical Italian Theory</td>
</tr>
<tr>
<td>ITAL 1400P</td>
<td>The Southern Question and the Colonial Mediterranean</td>
</tr>
<tr>
<td>ITAL 1400Q</td>
<td>From Neorealism to Reality TV</td>
</tr>
<tr>
<td>ITAL 1420</td>
<td>Sex and the Cities: Venice, Florence, and Rome, 1450-1800</td>
</tr>
<tr>
<td>ITAL 1430</td>
<td>Popular Culture, 1400 - 1800</td>
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<tr>
<td>ITAL 1431</td>
<td>Truth on Trial: Justice in Italy, 1400-1800 (HIST 1262M)</td>
</tr>
<tr>
<td>ITAL 1550</td>
<td>Italian Representations of the Holocaust</td>
</tr>
<tr>
<td>ITAL 1550B</td>
<td>Topics in the Early History of Printmaking: Festival and Carnival (HIAA 1550B)</td>
</tr>
<tr>
<td>ITAL 1560A</td>
<td>Italy and the Mediterranean (HIAA 1560A)</td>
</tr>
<tr>
<td>ITAL 1580</td>
<td>Word, Image and Power in Early Modern Italy</td>
</tr>
<tr>
<td>ITAL 1590</td>
<td>Word, Media, Power in Modern Italy</td>
</tr>
<tr>
<td>ITAL 1610</td>
<td>The Divina Commedia: Inferno and Purgatorio</td>
</tr>
<tr>
<td>ITAL 1620</td>
<td>The Divina Commedia: Dante's Paradiso: Justifying a Cosmos</td>
</tr>
<tr>
<td>ITAL 1920</td>
<td>Independent Study Project (Undergraduate)</td>
</tr>
<tr>
<td>ITAL 1990</td>
<td>Senior Conference</td>
</tr>
<tr>
<td>ITAL 2100</td>
<td>Introduction to Italian Studies</td>
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### COURSES IN OTHER DEPARTMENTS

<table>
<thead>
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<th>COURSE CODE</th>
<th>COURSE TITLE</th>
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<tbody>
<tr>
<td>HIAA 0340</td>
<td>Roman Art and Architecture: From Julius Caesar to Hadrian</td>
</tr>
<tr>
<td>HIAA 0550</td>
<td>Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany</td>
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<tr>
<td>HIAA 0560</td>
<td>Constructing the Eternal City: Popes and Pilgrims in Early Modern Rome</td>
</tr>
<tr>
<td>HIAA 1200D</td>
<td>Pompeii</td>
</tr>
<tr>
<td>HIAA 1301</td>
<td>The Palaces of Ancient Rome</td>
</tr>
<tr>
<td>HIAA 1302</td>
<td>Women and Families in the Ancient Mediterranean</td>
</tr>
<tr>
<td>HIAA 1303</td>
<td>Pompeii: Art, Architecture, and Archaeology in the Lost City</td>
</tr>
<tr>
<td>HIAA 1550B</td>
<td>Topics in the Early History of Printmaking: Festival and Carnival</td>
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<tr>
<td>HIAA 1560A</td>
<td>Italy and the Mediterranean</td>
</tr>
<tr>
<td>HIAA 1560C</td>
<td>Renaissance Venice and the Veneto</td>
</tr>
<tr>
<td>HIAA 1560D</td>
<td>Siena from Simone Martini to Beccafumi</td>
</tr>
<tr>
<td>HIAA 1560F</td>
<td>Topics in Italian Visual Culture: The Visible City, 1400-1800</td>
</tr>
<tr>
<td>HIAA 1600C</td>
<td>Italian Baroque Painting and Sculpture</td>
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</table>

### Undergraduate Concentrations

- **Archaeology in the Lost City**
- **Pompeii: Art, Architecture, and Mediterranean**
- **Women and Families in the Ancient Mediterranean**
- **The Palaces of Ancient Rome**
- **Constructing the Eternal City: Popes and Mediterranean**
- **Gold, Wool and Stone: Painters and Caesar to Hadrian**
- **Roman Art and Architecture: From Julius to Hysteresis 1262M**
- **Introduction to Italian Studies**

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

A concentration in Judaic Studies includes the following requirements:

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 JS faculty) to help the students select courses and construct a coherent concentration plan.
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 students opt 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.
6. Double concentrators may count up to two courses that deal with Jewish history, culture, or practice that they have used to complete their concentration requirements in another department towards their concentration in Judaic Studies.

The following are required for the completion of each track:

**History or Religious Studies Track:**

Students are expected to complete:

1. HEBR 0100/HEBR 0200
2. A minimum of four courses offered in the Program in Judaic Studies
   a. Students with a disciplinary focus in History should take at least one course focusing on the ancient period.
   b. Students with a disciplinary focus in Religious Studies should take one course focusing on the modern period.
3. At least one course (but no more than two) should be taken outside the program in Judaic Studies in the department of disciplinary focus (preferably methods courses, such as in the History department or RELS 1000).
4. 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.

**Language/Literature Track:**

Students are expected to complete:

1. Five courses in Hebrew language (HEBR 0100 / HEBR 0200; HEBR 0300/HEBR 0400; HEBR 0500).
2. “Issues in Israel in Hebrew” (HEBR 0600)

3. One further course in Judaic Studies with a disciplinary focus upon Literature.
4. 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).
5. Fulfillment of the Hebrew requirement through proficiency examination does not reduce the requirement to take ten courses for the concentration.
6. Of the courses required in this track one should focus on the ancient period.
7. A 1000-level Capstone

**Study Abroad:**

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.

**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 1975/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 determine 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 degree 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.

HEBR 0100/HEBR 0200

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 Latinx 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 or 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 Latinx societies. For more information, contact the Director of Undergraduate Studies, Professor Erica Durante (erica_durante@brown.edu?subject=LACA concentration).

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 two of these courses can be language learning classes. 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. Courses in which the student did substantial work on a Latin American, Caribbean, or Latinx subject may count toward this total, even if the course as a whole has a more general subject matter. Concentrators should periodically update their courses on ASK and confirm with the Director of Undergraduate Studies that they are on track to meeting the coursework requirement.

The courses must include at least one survey course providing a comprehensive and comparative view of the region. Examples include the following:

| LACA 0100 | Introduction to Latin America |
| LACA 0500 | Around Latin America in 80 Days: An Historical and Cultural Journey |
| AFRI 1100B | The Caribbean: Cultures, Politics, Histories and Literature |
| ANTH 1505 | Vertical Civilization: South American Archaeology from Monte Verde to the Inkas |
| DEVL 1560 | Economic Development in Latin America |
| ECON 1570 | The Economics of Latin Americans |
| HISP 0730 | Encounters: Latin America in Its Literature and Culture |
| HIST 0234 | Modern Latin America |
| POLS 1285 | Quality of Democracy in Latin America |

2. Competence in a Latin American and/or Caribbean language.

Competence in Spanish, Portuguese, French, 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. 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 fill and submit via ASK the Internship, Work or Volunteer Service Form, available online in the LACA Undergraduate Concentration webpage (https://watson.brown.edu/clacs/education/undergraduate).

In addition they are expected to submit via ASK a short letter from a supervisor confirming the completion of the work.

4. A capstone project. This may be a senior honors thesis or creative project, supervised by a primary advisor and a secondary reader; a non-honors research paper; or a reflective paper about non-academic work (such as service or foreign study) related to Latin America, the Caribbean or the Latinx experience.

The project may be completed for honors if the student is eligible (see Honors, below).

For up-to-date course information please visit Courses@Brown.edu (https://cabs.brown.edu).
Students undertaking a capstone project are encouraged to enroll in LACA 1900. Alternatively, they may elect to enroll in one or two semesters of independent study (LACA 1990, LACA 1991) with their thesis/project advisor.

Writing Requirement
To satisfy Brown's writing requirement as a LACA concentrator (which must be completed by the end of the 7th semester), students are encouraged to consider courses that have an emphasis on revision and feedback such as the following:

- LACA 1990 Individual Thesis Preparation
- ETHN 1200D Latinx Literature
- GNSS 1520 Latin American Honor
- HIST 0232 Clash of Empires in Latin America
- HIST 0537A Popular Culture in Latin America and the Caribbean
- MUSC 0021F Popular Music and Society in Latin America
- POLS 0820U Drug War Politics
- POLS 1820F Black Protest: Theory and Praxis

Engaged Scholars Program
The concentration also allows students to pursue the Engaged Scholars Program (http://watson.brown.edu/clacs/node/654). The Engaged Scholars Program (ESP) in Latin American and Caribbean Studies (LACA) is designed for LACA concentrators who are especially interested in making deeper connections between their academic work and local communities in Providence and beyond. Engaged Scholars combine hands-on experiences such as internships, public service, humanitarian, and development work with their academic learning in order to develop a deeper understanding of, and appreciation for, social engagement.

Honors
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:
For Senior-Year Students -
- By end of sixth semester: Students fill and submit to the concentration advisor the Honors Thesis Declaration Form available online in the LACA Undergraduate Concentration webpage (https://watson.brown.edu/clacs/education/undergraduate).
  In the form, they are expected to indicate their thesis or project title and short description. The Honors Thesis Declaration Form 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 November 15: The final, complete senior honors thesis or project is due.

- Students submit one paper copy and one electronic copy to the concentration advisor and one electronic copy to the Brown Library Digital Repository (BDR).

For Mid-Year Completers -
Mid-year completors must apply for the Honors Program their 6th semester, as 2nd semester Juniors. They undertake the thesis in their 7th and 8th semesters, allowing them to complete the following Honors course sequence:

- By the end of the 6th semester: Students fill and submit to the concentration advisor the Honors Thesis Declaration Form available online in the LACA Undergraduate Concentration webpage (https://watson.brown.edu/clacs/education/undergraduate). In the form, they are expected to indicate their thesis or project title and short description. The Honors Thesis Declaration Form must be signed by a primary advisor.
- By May 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 October 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 November 15: The final, complete senior honors thesis or project is due.

- Students submit one paper copy and one electronic copy to the concentration advisor and one electronic copy to the Brown Library Digital Repository (BDR).

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>Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0300 Introduction to Linguistics (May be waived in special instances)</td>
<td>CLPS 1310 Phonology</td>
</tr>
<tr>
<td>Required Courses</td>
<td>CLPS 1330 Introduction to Syntax</td>
</tr>
<tr>
<td>CLPS 1311 Linguistic Typology</td>
<td>AND one of:</td>
</tr>
<tr>
<td>CLPS 1341 Lexical Semantics</td>
<td>CLPS 1342 Compositional Semantics</td>
</tr>
<tr>
<td>CLPS 1370 Pragmatics</td>
<td>CLPS 1650 Child Language Acquisition</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 0100A/LITR 0100B, LITR 0110A/LITR 0110B, LITR 0110D, LITR 0110E, the various courses under LITR 0210, LITR 0310, LITR 0610, LITR 1010, LITR 1110, LITR 1150/1151 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 before 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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>or any Topics Course in Language Acquisition or Language Processing</td>
<td></td>
</tr>
</tbody>
</table>

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 methods 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 Code</th>
<th>Course Title</th>
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</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>Compositional Semantics</td>
</tr>
<tr>
<td>CLPS 1360</td>
<td>Introduction to Corpus Linguistics</td>
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</tbody>
</table>

A course from the 1381 series (Topics in Phonetic & Phonology)

A course from the 1383 series (Topics in Syntax and Semantics). For example:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CLPS 1383D</td>
<td>Topics in Syntax and Semantics</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1390</td>
<td>Linguistic Field Methods</td>
</tr>
<tr>
<td>CLPS 1821</td>
<td>Neuroimaging and Language</td>
</tr>
<tr>
<td>CLPS 1880</td>
<td>Series in Psycholinguistics</td>
</tr>
<tr>
<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics</td>
</tr>
</tbody>
</table>

Other Courses Routinely Fulfilling Linguistics Concentration Requirements (in consultation with the Concentration Advisor):

NOTE: This is NOT an exhaustive list of courses that can be applied towards the Linguistics Concentration requirements.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0800</td>
<td>Sound and Symbols: Introduction to Linguistic Anthropology</td>
</tr>
<tr>
<td>ANTH 1800</td>
<td>Sociolinguistics, Discourse and Dialogue</td>
</tr>
<tr>
<td>CLPS 0050M</td>
<td>Playing with Words: The Linguistic Principles Behind Word Games and Puzzles</td>
</tr>
<tr>
<td>CLPS 1365</td>
<td>Historical Linguistics</td>
</tr>
<tr>
<td>CSCI 1460</td>
<td>Computational Linguistics</td>
</tr>
<tr>
<td>EAST 1510</td>
<td>Chinese: A History of the Language</td>
</tr>
<tr>
<td>EGYT 2310</td>
<td>History of the Ancient Egyptian Language</td>
</tr>
<tr>
<td>SLAV 1300</td>
<td>Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe)</td>
</tr>
<tr>
<td>PHIL 0540</td>
<td>Logic</td>
</tr>
<tr>
<td>PHIL 1760</td>
<td>Philosophy of Language</td>
</tr>
</tbody>
</table>

Total Credits 10

1 It is recommended that students take CLPS 1310 and CLPS 1330 before higher level courses.

Honors (12 courses)

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180 &amp; MATH 0520</td>
<td>Intermediate Calculus and Linear Algebra</td>
</tr>
<tr>
<td>MATH 0180 &amp; MATH 0540</td>
<td>Intermediate Calculus and Honors Linear Algebra</td>
</tr>
<tr>
<td>MATH 0200 &amp; MATH 0520</td>
<td>Intermediate Calculus (Physics/Engineering) and Linear Algebra</td>
</tr>
<tr>
<td>MATH 0350 &amp; MATH 0540</td>
<td>Honors Calculus and Honors Linear Algebra</td>
</tr>
</tbody>
</table>

Or the equivalent

<table>
<thead>
<tr>
<th>Program:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
</tr>
<tr>
<td>MATH 1530</td>
</tr>
</tbody>
</table>

Five other 1000- or 2000-level Mathematics courses. The year-long sequence 0750/0760 may be substituted for one of these course credits.

Total Credits 8

Standard program for the Sc.B. degree

Prerequisites:

Multivariable calculus and linear algebra (choose one of the following sequences):

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180 &amp; MATH 0520</td>
<td>Intermediate Calculus and Linear Algebra</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
</tr>
<tr>
<td>MATH 1530</td>
</tr>
</tbody>
</table>

Four other 1000- or 2000-level Mathematics courses. The year-long sequence 0750/0760 may be substituted for one of these course credits.

Four additional courses in mathematics, science, economics, or applied mathematics approved by the concentration advisor.

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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1130</td>
<td>Functions of Several Variables</td>
</tr>
<tr>
<td>MATH 1140</td>
<td>Functions Of Several Variables</td>
</tr>
<tr>
<td>MATH 1260</td>
<td>Complex Analysis</td>
</tr>
<tr>
<td>MATH 1410</td>
<td>Topology</td>
</tr>
<tr>
<td>MATH 1540</td>
<td>Topics in Abstract Algebra</td>
</tr>
</tbody>
</table>

Mathematics-Computer Science

Students may opt to pursue an interdisciplinary Bachelor of Science degree in Math-Computer Science, a concentration administered cooperatively between the mathematics and computer science departments. Course requirements include math- and systems-oriented computer science courses, as well as computational courses in applied math. Students must identify a series of electives that cohere around a common theme. As with other concentrations offered by the Computer Science department, students have the option to pursue the professional track (http://www.cs.brown.edu/ugrad/concentrations/professional.track.html) of the ScB program in Mathematics-Computer Science.

Requirements for the Standard Track of the Sc.B. degree.

Prerequisites

Three semesters of Calculus to the level of MATH 0180, MATH 0200, or MATH 0350

<table>
<thead>
<tr>
<th>Core Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180</td>
</tr>
<tr>
<td>MATH 0200</td>
</tr>
<tr>
<td>MATH 0350</td>
</tr>
</tbody>
</table>

Select one of the following series:

Series A

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 130</td>
<td>Abstract Algebra</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
On completion of each professional experience, the student must write 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

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 1630</td>
<td>Mathematical Econometrics I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1770</td>
<td>Welfare Economics and Social Choice Theory</td>
<td>2</td>
</tr>
<tr>
<td>ECON 1225</td>
<td>Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1465</td>
<td>Market Design: Theory and Applications</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1470</td>
<td>Bargaining Theory and Applications</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1640</td>
<td>Econometrics II</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1650</td>
<td>Financial Econometrics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1660</td>
<td>Big Data</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1750</td>
<td>Investments II</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1759</td>
<td>Data, Statistics, Finance</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1810</td>
<td>Economics and Psychology</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1820</td>
<td>Theory of Behavioral Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1850</td>
<td>Theory of Economic Growth</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1860</td>
<td>The Theory of General Equilibrium</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1870</td>
<td>Game Theory and Applications to Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1300</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 1360</td>
<td>Health Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1410</td>
<td>Urban Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1480</td>
<td>Public Economics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1510</td>
<td>Economic Development</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1520</td>
<td>The Economic Analysis of Institutions</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1530</td>
<td>Health, Hunger and the Household in Developing Countries</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1629</td>
<td>Applied Research Methods for Economists</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1640</td>
<td>Econometrics II</td>
<td>1</td>
</tr>
</tbody>
</table>

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.

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

**Professional Track**

The requirements for the professional track include all those of the standard track, as well as the following:

- Students must complete 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**

The program in Medieval Studies offers a concentration in Medieval Cultures with two tracks with distinct foci: one in Medieval Cultures and the other in Late Antique Cultures. Medieval Cultures focuses on the 6th-15th centuries, combining interdisciplinary perspectives with in-depth study of one or two related disciplines.

Late Antique Cultures deals with the 3rd-9th 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 studies the changing relation of cultural practices, social patterns, political and economics forms, and artistic and literary traditions in this important transition period.

A traditional area of study in Medieval Cultures is Western Europe in the High Middle Ages, but students are encouraged to work comparatively in Byzantine, Islamic, Judaic and/or Slavic cultures in the middle ages.

**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 Philosopher's 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 |
| RELS 0640 | Dying To Be With God: Jihad, Past and Present |
| CLAS 0660 | The World of Byzantium |

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

One course in Roman history: 1

<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 1

One course at the advanced level (numbered at least 1000) in one approved language 1

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. 6

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>
<tr>
<td>CLAS 1120V</td>
<td>The Age of Constantine: The Roman Empire in Transition</td>
</tr>
<tr>
<td>CLAS 1750L</td>
<td>Erotic Desire in the Premodern Mediterranean</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
COLT 0510K The 1001 Nights
COLT 1813P Captive Imaginations: Writing Prison in the Middle Ages
ENGL 0100D Matters of Romance
ENGL 0150C The Medieval King Arthur
ENGL 0300F Beowulf to Aphra Behn: The Earliest British Literatures
ENGL 0310F Prose Sagas of the Medieval North
ENGL 1310T Chaucer
ENGL 1310V Chaucer: The Canterbury Tales
ENGL 1311H Sagas Without Borders: Multilingual Literatures of Early England
ENGL 1311L From Mead-Hall to Mordor: The Celtic and Germanic Roots of Tolkien’s Fiction
ENGL 1360F Quest, Vision, Diaspora: Medieval Journey Narratives
ENGL 1360H Introduction to the Old English Language
ENGL 1360J Middle English Literature
ENGL 1360U Europe in the Vernacular
ENGL 1361D Women's Voices in Medieval Literature
ENGL 1900Y Medieval Manuscript Studies: Paleography, Codicology, and Interpretation
ENGL 2360Q Manuscript, Image, and the Middle English Text
GREK 1110Q Greek Erotic Literature: From Plato to the Medieval Romances
GREK 1110T Rhetors and Philosophers: Intellectual Thought and Sophistic Style in the Ancient World
GREK 2110F Greek Paleography and Premodern Book Cultures
HIAA 0321 Toward a Global Late Antiquity: 200-800 CE
HIAA 0460 Muslims, Jews and Christians in Medieval Iberia
HIAA 1440B Architecture of Solitude: The Medieval Monastery
HISP 2030D Fifteenth-Century Sentimental Romances and Celestina
HIST 0150B The Philosophers’ Stone: Alchemy From Antiquity to Harry Potter
HIST 0521A Christianity in Conflict in the Medieval Mediterranean
HIST 0521M The Holy Grail and the Historian’s Quest for the Truth
HIST 0621B The Search for King Arthur
HIST 1205 The Long Fall of the Roman Empire
HIST 1210A The Viking Age
HIST 1260D Living Together: Muslims, Christians, and Jews in Medieval Iberia
HIST 1211 Crusaders and Cathedrals, Deviants and Dominance: Europe in the High Middle Ages
HIST 1963L Barbarians, Byzantines, and Berbers: Early Medieval North Africa, AD 300-1050
HIST 1963Q Sex, Power, and God: A Medieval Perspective
HIST 1963M Charlemagne: Conquest, Empire, and the Making of the Middle Ages
HIST 1974M Early Modern Globalization
HIST 2970A New Perspectives on Medieval History

JUDS 0050M Difficult Relations? Judaism and Christianity from the Middle Ages until the Present
JUDS 0681 Great Jewish Books
JUDS 1630 The Talmud
LATN 1110F Fortunatus
LATN 1110H Literature at the Court of Charlemagne
LATN 1120C Survey of Late and Medieval Latin
LATN 1120D Alcuin
MDVL 0360 Cities: Medieval Perspectives
MDVL 0620 Muslims, Jews, and Christians in Medieval Iberia
MDVL 1970 Independent Study
MDVL 1990 Honors Thesis
PHIL 1100C Medieval Arabic Philosophy
RELS 0025 Wealth: Religious Approaches
RELS 0110 Christians
RELS 0150 Islam Unveiled
RELS 0290D Islamic Sexualities
RELS 0410 Christianity in Late Antiquity
RELS 0640 Dying To Be With God: Jihad, Past and Present
RELS 1300 Ancient Christianity and the Sensing Body
RELS 1520 Pilgrimage and Sacred Travel in the Lands of Islam
RELS 1530A Methods and Problems in Islamic Studies: Narratives
RELS 1530D Medieval Islamic Sectarianism

Honors
When in Late Antique Cultures, these are awarded to students who present a meritorious honors thesis in addition to completing the required courses of the concentration. Application for admission to honors should be made in the spring of the junior year, by which time honors candidates must have completed a minimum of six approved courses in Late Antique Studies. Accepted candidates write the thesis in a two-semester course sequence (MDVL 1990) under the supervision of a director and a second reader to be determined in consultation with the advisor.

Middle East Studies
The concentration in Middle East Studies (MES) seeks to build a strong, interdisciplinary understanding of historical and contemporary issues within the Middle East, broadly defined. Requirements are intentionally flexible to accommodate the focused interests of students in understanding the diverse dynamics, histories, and societies of this region. A variety of courses from departments across the University, addressing subjects from antiquity to the present day, expose students to methods and materials of different disciplines and help them build a framework for understanding the Middle East in historical and contemporary context. Concentration requirements are structured around four major cornerstones: language, foundational knowledge and methods, multidisciplinary area studies, and research.

Standard Program for the AB Degree
Foundational Courses: All MES concentrators are expected to take both of the following foundational courses. It is recommended that students take the first foundational course (MES 0100: The Middle East: Cultures and Societies—offered every spring) before taking the second foundational course (MES 1968: Approaches to the Middle East—offered every fall). Foundational course requirements cannot be fulfilled via independent study, study abroad, or transfer credits.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Electives: Students must take at least three elective courses chosen in consultation with the Director of Undergraduate Studies (DUS) from the list of courses offered within MES or that are cross- or X-listed by MES. To allow for exposure of different disciplinary approaches to the Middle East, students must take at least one course in the humanities (offered within the departments of Archaeology and the Ancient World, Classics, Comparative Literature, History of Art and Architecture, Modern Culture and Media, Philosophy, or Religious Studies) and at least one course in the social sciences (offered within the departments of Anthropology, History, International Relations, Political Science, Sociology, or Urban Studies). Some examples of recent courses that would fulfill these requirements include:

**Humanities**
- CLAS 0660 The World of Byzantium
- HIAA 0041 The Architectures of Islam
- PHIL 0203 Introduction to Islamic Philosophy
- RELS 0088 Judaism, Christianity, and Islam

**Social Sciences:**
- ANTH 1150 Middle East in Anthropological Perspective
- INTL 1802Q Iran and the Islamic Revolution
- POLS 1822I Geopolitics of Oil and Energy
- SOCI 1871L Migration, Displacement and Emerging Community Experiences: Contemporary Turkey
- URBN 1870K Jerusalem Since 1850: Religion, Politics, Cultural Heritage

**Language Semesters:** Middle East Studies concentrators are expected to achieve competence in at least one of the modern Middle Eastern languages, such as Arabic, Persian, Hebrew, or Turkish. This entails the completion of at least six semesters of Brown language coursework in one of these languages, or the equivalent through transfer or study abroad credits. Students who have reached proficiency in a Middle Eastern language but have not received six credits at Brown (including transfer and/or study abroad credits) can fulfill this requirement:

- Through advanced reading and writing courses in that language. Recent examples include:
  - COLT 1310J The Arab Renaissance
  - COLT 1431B Modern Arabic Poetry
- Or through courses in a non–Middle Eastern language to be used in a senior capstone project (for example, Spanish for the study of Andalucía or French for the study of North Africa).

**Capstone/Honors Project:** MES requires all concentrators to conduct a capstone project within their senior year (i.e., in their last two semesters before graduation). The purpose of the capstone is to synthesize and apply the skills and knowledge that MES concentrators have acquired through the MES curriculum—including disciplinary perspectives, methodological and theoretical approaches, background in the historical and contemporary dynamics of the region, and language competency—to particular interests developed through the concentration. Capstones offer students the opportunity to integrate and build upon their experiences within the concentration, while demonstrating intellectual creativity, research skills, and effective communication, and should serve in some sense as a culmination or reflection on what one has gained in the concentration. All students are expected to present their capstone research in the final semester before graduation. Presentations of honors theses will be approximately twenty minutes long, and those of non-honors capstone projects will be approximately ten minutes long, both followed by a question-and-answer session. Capstone projects must fulfill the following requirements:

- • Must be taken in the final two semesters before graduation (excluding summer and winter sessions)
- • Must synchronize research in a Middle Eastern language.
- • Must be taken for a letter grade.
- • Must be approved or overseen by a MES or MES-affiliated faculty member.
- • Must be presented in the final semester before graduation.

Capstones can take one of three forms:

a. A Middle East–focused research paper of at least 20 pages for an existing concentration-eligible (MES-coded or X-Listed) course, undertaken with the permission and supervision of the instructor.

b. An independent study or project (artistic, research, or otherwise), approved by the DUS and supervised by at least one faculty member for at least one semester under the MES 1970 - Independent Study designation.

c. A two-semester honors thesis, completed under the supervision of a primary reader (who is an MES or MES-affiliated faculty member) and a secondary reader (who can be from other Brown departments and programs), and in coordination with the DUS.  

**Total Credits**

- 1 For concentrators graduating before 2023, courses designated “Foundational Courses” under previous concentration requirements may be used to fulfill this requirement. Please meet with the MES Director of Undergraduate Studies (DUS) to discuss any such arrangements.
- 2 Previously HIST 1968 or HIST 1968A: Approaches to the Middle East. Any student who has taken HIST 1968 or HIST 1968A: Approaches to the Middle East, will have fulfilled this requirement.
- 3 Concentrators are encouraged to discuss options for fulfilling language requirements with the DUS.
- 4 Two semesters of Independent Study (MES 1970) are required for honors and will raise the number of required courses to 13. One of these Independent Study courses should take the form of a thesis writing workshop supervised by the DUS or other designated MES faculty during the first semester of thesis writing. Students must declare their intention to write an honors thesis and submit a thesis prospectus (to include a thesis proposal, research plan, proposed thesis outline, initial literature review, and initial bibliography) by April 25th of their junior year (for May graduates) or November 20th of their junior year (for December graduates).

**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**
Middle East Studies concentrators may apply up to two courses that fulfill MES concentration requirements toward fulfilling the requirements of another concentration. Language courses do not count toward this two-course limit on overlapping courses.

**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, postcoloniality, the novel, modern thought, the modern arts, sound, and theories of ideology and subjectivity. Productive work in some modern medium or textual mode is encouraged for all concentrators. MCM’s approach to production recognizes the inextricable link between theory and practice, and the possibility of a fruitful complicity between them. Production, in the sense defined here, is a theoretically informed sphere or practice, one within which acknowledged forms of cultural creation are tested and extended in close complementarity with the analyses conducted elsewhere in MCM.

Track I consists of 11 courses:

Core courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0150</td>
<td>Text/Media/Culture: Theories of Modern Culture and Media</td>
<td>1</td>
</tr>
</tbody>
</table>

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0220</td>
<td>Print Cultures: Textuality and the History of Books</td>
<td>2</td>
</tr>
<tr>
<td>MCM 0230</td>
<td>Digital Media</td>
<td></td>
</tr>
<tr>
<td>MCM 0240</td>
<td>Television Studies</td>
<td></td>
</tr>
<tr>
<td>MCM 0250</td>
<td>Visuality and Visual Theories</td>
<td></td>
</tr>
<tr>
<td>MCM 0260</td>
<td>Cinematic Coding and Narrativity</td>
<td></td>
</tr>
<tr>
<td>MCM 1110</td>
<td>The Theory of the Sign</td>
<td></td>
</tr>
</tbody>
</table>

Additional courses

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.

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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0150</td>
<td>Text/Media/Culture: Theories of Modern Culture and Media</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following Introductory Practice or History of a Medium courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0730</td>
<td>Introduction to Video Production: Critical Strategies and Histories</td>
<td>1</td>
</tr>
<tr>
<td>VISA 0100</td>
<td>Studio Foundation</td>
<td></td>
</tr>
<tr>
<td>VISA 0110</td>
<td>Advanced Studio Foundation</td>
<td></td>
</tr>
<tr>
<td>VISA 0120</td>
<td>Foundation Media</td>
<td></td>
</tr>
<tr>
<td>MUSC 0200</td>
<td>Computers and Music</td>
<td></td>
</tr>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science</td>
<td>1</td>
</tr>
</tbody>
</table>

A course from the LITR 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0220</td>
<td>Print Cultures: Textuality and the History of Books</td>
<td></td>
</tr>
<tr>
<td>MCM 0230</td>
<td>Digital Media</td>
<td></td>
</tr>
<tr>
<td>MCM 0240</td>
<td>Television Studies</td>
<td></td>
</tr>
<tr>
<td>MCM 0250</td>
<td>Visuality and Visual Theories</td>
<td></td>
</tr>
<tr>
<td>MCM 0260</td>
<td>Cinematic Coding and Narrativity</td>
<td></td>
</tr>
<tr>
<td>MCM 1110</td>
<td>The Theory of the Sign</td>
<td></td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Three additional courses from the MCM 1200 or MCM 1500 series
Four practice courses selected in consultation with an advisor.
One Senior Seminar from the MCM 1700 series or other equivalent in production

Total Credits: 11

1  At least one must be from the MCM 1500 series.
2  Courses can be in any medium or combinatory sequence of media from the following departments: Modern Culture and Media, Visual Art, Music, Literary Arts, Theatre Arts and Performance Studies, Computer Science, Engineering, supplemented by approved courses at Rhode Island School of Design and study abroad. This list is not exhaustive.

Honors:
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 II 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.

Music
The concentration in Music integrates theory, history, ethnomusicology, technology, composition, and performance. Upon completing two foundational courses in theory and musicianship, concentrators have the flexibility to craft an intellectual pathway based on their particular interests and goals. The curriculum is supported by the Onwig 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.

Concentrating in Music
If you choose Music as a Concentration*, you will be expected to achieve well-rounded training as a musician, regardless of the genre(s) in which you specialize. This training is manifested in the following general components:

Fundamental skills are important for any musician, and therefore a minimum of two music theory/musicianship courses are required of all students who wish to Concentrate. Students have the opportunity to enter various theory courses according to their interest and experience.

Historical and cultural knowledge of music is another key area from which Concentrators are required to complete courses. These courses may be studies of Western or non-Western forms of music.

The creation of music is also central to the Music Concentration. Students are encouraged to make music in a number of ways, including participation in ensembles, solo performance, composition, music production, and/or conducting.

Music faculty will be available to advise students on shaping the flexible parts of their Concentration and achieving their goal at Brown.

Students who declare a concentration prior to Fall 2019 can view concentration requirements here: https://bulletin.brown.edu/archive/2018-19/the-college/concentrations/musc/

Concentration Requirements:

Music Theory
- Two courses in music theory, which may include one 400-level and one 500-level course, or two 500-level courses.

Music Scholarship, Production and Advance Theory
A minimum of four upper-level courses above 1000, must include:

- One upper-level course in musicology or ethnomusicology
- Any three upper-level courses, including graduate-level courses

Additional Electives (according to student interest)
Four additional elective courses, may include:
- Up to four half-credit courses in performance - AMP music instruction and/or Ensemble Participation (2 credits)
- Up to two courses outside of the department
- One music course below the 1000 level

Senior Project
All music concentrators will choose a culminating experience for their senior year, either a capstone project or honors project. This may take the form of a performance, scholarly study, or original creative work. All students will have a primary advisor for their Senior Project. The work may be done independently of a course for credit, as an independent study, or within the framework of an existing course.

Honors in Music (optional)
Faculty Rules stipulate “Brown University shall, at graduation, grant honors to students whose work in a field of concentration has demonstrated superior quality and culminated in an honors thesis of distinction.”

In order to apply for Honors in Music, a student must fulfill the following criteria:
1. The student must have acquired a 3.5 cumulative grade point average overall.
2. The student must also have acquired a 3.5 cumulative grade point average in courses that count toward the concentration. (“S with distinction” equates with “A”. Grades of “S” are not computed in the grade point average.)

Departmental Procedures:
The Department designates three kinds of projects leading to honors in music:

(a) Research project in history, theory, or ethnomusicology.
(b) Performance project accompanied by pertinent research of lesser scope than (a). (Scholarly program notes required)
(c) Composition/Computer Music project. (score required if applicable; recording and/or video documentation desired, short project description)

NOTE: the term HONORS COMMITTEE refers to a student’s honors thesis advisor and readers.

A student wishing to propose a project should proceed as follows:
1. An honors candidate must secure a faculty advisor and a second reader to serve as an honors committee for his or her project by the end of the year before graduation—typically, the end of the sixth semester. At the beginning of the penultimate semester the student will submit a proposal describing the project to the honors committee for approval. The proposal must receive committee approval and be given to Mary Rego for distribution to the full faculty by the first day of the first full week of classes of the semester. The department faculty will vote on the proposals at the next regularly scheduled meeting. Decisions will be based on the student’s overall performance in music courses and on the quality of the proposal. The advisor will notify the student of the faculty’s decision.
2. It is expected that honors projects will normally take two semesters to complete. Students pursuing honors may choose to register for MUSC 1970 in the Fall and/or in the Spring. In any case, they will establish a series of regular meetings with their advisor. By finals week of the penultimate semester, honors candidates must demonstrate substantial progress by submitting to the honors committee a partial draft of a paper or composition or, for performance projects, by playing a significant portion of the programmed repertoire. Failure to make sufficient progress may result in the termination of the honors project.
3. Last semester deadlines: Honors candidates must submit a complete draft to their honors committee by the first day of classes following the eighth week of the last semester. The committee will comment on the project and suggest revisions. Revisions must be completed, and the final project submitted to the honors committee by the first day of classes two weeks later. In the case of performance projects, this means that both the public performance and the scholarly component

For up-to-date course information please visit Courses@Brown.edu (https://cabs.brown.edu).
must have been completed by this date. In the case of research projects, all figures, notes, bibliography, and other critical apparatus must have been completed. Failure to make the deadline may result in the forfeiting of honors by the candidate, though the student may complete the project as a capstone project.

4. The honors committee will confer to determine their views on their projects. If the second reader is outside Music, the advisor may solicit a written recommendation about the merits of the project.

5. The advisor will deliver a copy of the completed thesis to the Mary Rigby by the middle of the eleventh week of the last semester so that it may be made available for review by the full faculty. (Online, or hard copy on reserve in the Music Library.)

6. During the twelfth week of the last semester, the advisor will report on the project at a meeting of the Department faculty for a vote. The advisor will notify the student of the faculty’s decision.

7. Honors recipients will present their projects at a Department of Music Convocation held once annually at noon on the first day of final examination period in Semester II.

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., physiological, 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:

<table>
<thead>
<tr>
<th>Background Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0990 Introductory Calculus, Part I</td>
</tr>
<tr>
<td>MATH 0100 Introductory Calculus, Part II</td>
</tr>
<tr>
<td>PHYS 0300 Basic Physics A</td>
</tr>
<tr>
<td>PHYS 0400 Basic Physics B</td>
</tr>
<tr>
<td>BIOL 0200 The Foundation of Living Systems</td>
</tr>
<tr>
<td>CHEM 0330 Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>CHEM 0350 Organic Chemistry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Core Concentration Courses:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 0010 The Brain: An Introduction to Neuroscience</td>
</tr>
<tr>
<td>NEUR 1020 Principles of Neurobiology</td>
</tr>
<tr>
<td>NEUR 1030 Neural Systems</td>
</tr>
<tr>
<td>One neuroscience lab course</td>
</tr>
<tr>
<td>One critical reading course</td>
</tr>
<tr>
<td>One statistics course</td>
</tr>
</tbody>
</table>

Four electives related to neuroscience 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
  - 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
  - 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
  - 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
  - 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
  - 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

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

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Astrophysics Track for the Sc.B. degree

Prerequisites:
Select one of the following Series:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070 &amp; PHYS 0160</td>
<td>Analytical Mechanics and Introduction to Relativity, Waves and Quantum Physics</td>
</tr>
<tr>
<td>PHYS 0050 &amp; PHYS 0060</td>
<td>Foundations of Mechanics and Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0270</td>
<td>Astronomy and Astrophysics</td>
</tr>
</tbody>
</table>

Select one of the following Series:

<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>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
</tr>
</tbody>
</table>

Program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<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 PHYS 0720</td>
<td>Methods of Mathematical Physics</td>
</tr>
</tbody>
</table>

Select one of the following Math courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics III, IV</td>
</tr>
<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>MATH 1110</td>
<td>Ordinary Differential Equations</td>
</tr>
<tr>
<td>MATH 1120</td>
<td>Partial Differential Equations</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 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
</tr>
</tbody>
</table>

Three of the following:

<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>

Two additional 1000- or 2000-level courses in physics or a related field which are not listed as requirements.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
</tr>
</tbody>
</table>

Total Credits: 18

Elective Courses (four chosen from the following list, with at least two 1000-level courses, or additional courses approved by the concentration advisor):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0380</td>
<td>Applied Partial Differential Equations I</td>
</tr>
<tr>
<td>APMA 0410</td>
<td>Mathematical Methods in the Brain Sciences</td>
</tr>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>APMA 1070</td>
<td>Quantitative Models of Biological Systems</td>
</tr>
<tr>
<td>APMA 1080</td>
<td>Inference in Genomics and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>Biology of the Eukaryotic Cell</td>
</tr>
<tr>
<td>BIOL 1200</td>
<td>Protein Biophysics and Structure</td>
</tr>
<tr>
<td>BIOL 1270</td>
<td>Advanced Biochemistry</td>
</tr>
<tr>
<td>BIOL 1870</td>
<td>Techniques and Clinical Applications in Pathobiology</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
</tr>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>MATH 1610</td>
<td>Probability</td>
</tr>
<tr>
<td>MATH 1620</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>PHYS 0560</td>
<td>Experiments in Modern Physics</td>
</tr>
<tr>
<td>PHYS 1510</td>
<td>Advanced Electromagnetic Theory</td>
</tr>
<tr>
<td>PHYS 1560</td>
<td>Modern Physics Laboratory</td>
</tr>
<tr>
<td>PHYS 2620F</td>
<td>Selected Topics in Molecular Biophysics</td>
</tr>
</tbody>
</table>

1 A senior thesis is required. This is to be prepared in connection with under the direction of a faculty supervisor. The topic may be in a related department or of interdisciplinary nature. In any event, a dissertation must be submitted.

Biological Physics Track for the Sc.B. degree

Foundations of Physics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>or PHYS 0050</td>
<td>Foundations of Mechanics</td>
</tr>
<tr>
<td>or ENGN 0040</td>
<td>Dynamics and Vibrations</td>
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<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity, Waves and Quantum Physics</td>
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<tr>
<td>PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
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<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>PHYS 0500</td>
<td>Advanced Classical Mechanics</td>
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<tr>
<td>PHYS 1410</td>
<td>Quantum Mechanics A</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
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<tr>
<td>or PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>Selected Topics in Molecular Biophysics</td>
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</tr>
<tr>
<td>Modern Physics Laboratory</td>
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</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Mathematical Physics Track for the A.B. degree

Prerequisites:

- MATH 0090 or MATH 0100 or MATH 0190: Introductory Calculus, Part I or Advanced Placement Calculus (Physics/Engineering)
- PHYS 0050 or PHYS 0070: Foundations of Mechanics or Analytical Mechanics
- MATH 0180 or MATH 0200: Intermediate Calculus
- MATH 0520 or MATH 0540: Honors Linear Algebra
- PHYS 1110: Ordinary Differential Equations

Select at least one of the following:

- MATH 1060: Differential Geometry
- MATH 1120: Partial Differential Equations
- MATH 1610: Probability

Mathematics Courses

- MATH 0060: Foundations of Electromagnetism and Modern Physics
- PHYS 0060: Introduction to Relativity, Waves 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 1100: Analytical Mechanics
- PHYS 1170: Quantum Mechanics A
- PHYS 1180: Quantum Mechanics B
- PHYS 1280: Advanced Electromagnetic Theory
- PHYS 1510: Thermodynamics and Statistical Mechanics
- PHYS 1530: Modern Physics Laboratory

Total Credits: 18-20

1 Concentrators are required to take at least one course in mathematics and one in physics in each of their last two semesters.

Mathematical Physics Track for the Sc.B. degree

Prerequisites:

Select one of the following series:

- PHYS 0070: Analytical Mechanics
- & PHYS 0160: and Introduction to Relativity, Waves and Quantum Physics

Select one of the following:

- PHYS 0050: Foundations of Mechanics and Quantum Physics
- & PHYS 0060: and Experiments in Modern Physics

Select one of the following:

- MATH 0190: Advanced Placement Calculus (Physics/Engineering)

Total Credits: 17-18

1 Select Series A alone or two from Series B as indicated.
2 A senior thesis is required. This is to be prepared in connection with a related department or interdisciplinary nature. In any event, a dissertation must be submitted.

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:

- PHYS 0060 Foundations of Electromagnetism and Modern Physics 1
- PHYS 0160 Introduction to Relativity, Waves and Quantum Physics

One course in Special Relativity and Classical Field Theory: 1

- PHYS 0470 Electricity and Magnetism

Select one of the following in Methods of Experimental and Theoretical physics:

- PHYS 0500 Advanced Classical Mechanics 1
- PHYS 0560 Experiments in Modern Physics 1

Select one of the following in Quantum Mechanics and its applications:

- PHYS 1410 Quantum Mechanics A 1
- PHYS 1530 Thermodynamics and Statistical Mechanics 1

One more 1000-level Physics course 1

### Philosophy Courses

Select one of the following gateway courses:

- PHIL 0210 Science, Perception and Reality 1
- PHIL 0100 Critical Reasoning 1
- PHIL 0060 Modern Science and Human Values 1
- PHIL 0540 Logic 1

Select one of the following courses in Early Modern Philosophy:

- 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

Select two of the following courses in Epistemology, Metaphysics and Philosophy of Science:

- PHIL 1590 Philosophy of Science 2
- PHIL 1620 Philosophy of Quantum Mechanics
- PHIL 1660 Metaphysics
- PHIL 1670 Time
- PHIL 1750 Epistemology

### History Courses

Select one of the following courses in History of Science: 1

- HIST 0522N Reason, Revolution and Reaction in Europe
- HIST 1825M Science at the Crossroads
- HIST 1976I Imperialism and Environmental Change

### Calculus

Select one of the following:

- MATH 0180 Intermediate Calculus 1
- MATH 0200 Intermediate Calculus (Physics/Engineering)
- MATH 0350 Honors Calculus

### Final Project

Select one of the following:

- PHIL 1990 Independent Studies
- PHYS 1990 Senior Conference Course

A course from the PHIL 0990 Senior Seminar series

Any graduate seminar in Philosophy

Total Credits: 12

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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.

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

Two introductory courses:

For the American politics track, the following two introductory courses are required:

POLS 0010 Introduction to the American Political Process
- and -

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
- and -

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
- and -

POLS 0010 Introduction to the American Political Process
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.

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 Luso-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 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.

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

For the American politics track, the following two introductory courses are required:

POLS 0010 Introduction to the American Political Process
- and -

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
- and -

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
- and -

POLS 0010 Introduction to the American Political Process
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.

A 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.

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.
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., CLPS 2906, CLPS 2908).

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
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<tr>
<td>One approved course in Social/Personality, such as:</td>
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<tr>
<td>CLPS 0700</td>
<td>Social Psychology</td>
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<td>CLPS 0701</td>
<td>Personality</td>
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<td>CLPS 1700</td>
<td>Abnormal Psychology</td>
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<tr>
<td>One approved course in Perception/Cognition:</td>
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<tr>
<td>CLPS 0200</td>
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<td>CLPS 0450</td>
<td>Brain Damage and the Mind</td>
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<td>CLPS 0500</td>
<td>Perception and Mind</td>
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<td>One approved course in Development, such as:</td>
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<tr>
<td>CLPS 0600</td>
<td>Developmental Psychology</td>
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<td>CLPS 0610</td>
<td>Children’s Thinking: The Nature of Cognitive Development</td>
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<td>CLPS 0620</td>
<td>Social and Moral Development</td>
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<tr>
<td>One approved course in Learning/Animal Behavior/Behavioral Neuroscience, such as:</td>
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<tr>
<td>CLPS 0100</td>
<td>Learning and Conditioning</td>
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<td>CLPS 0110</td>
<td>Animal Behavior</td>
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<td>CLPS 0150</td>
<td>Behavioral Neuroscience: Introduction to Biological Psychiatry</td>
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<td>Four Approved Electives related to Psychology, such as:</td>
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<td>CLPS 0950</td>
<td>Introduction to Programming</td>
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<td>CLPS 1100</td>
<td>Animal Cognition</td>
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<td>CLPS 1150</td>
<td>Memory and the Brain</td>
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<td>CLPS 1160</td>
<td>Evolution and Development of the Brain</td>
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<td>CLPS 1194</td>
<td>Sleep and Chronobiology Research</td>
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<td>CLPS 1200</td>
<td>Thinking</td>
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<td>CLPS 1250</td>
<td>Human Factors</td>
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<tr>
<td>CLPS 1480B</td>
<td>Cognitive Aging and Dementia</td>
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<td>CLPS 1495</td>
<td>Affective Neuroscience</td>
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<td>CLPS 1500</td>
<td>Perception and Action</td>
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<td>CLPS 1510</td>
<td>Auditory Perception Laboratory</td>
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<td>CLPS 1610</td>
<td>Cognitive Development</td>
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<td>CLPS 1650</td>
<td>Child Language Acquisition</td>
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<td>CLPS 1720</td>
<td>Human Resilience</td>
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<td>CLPS 1730</td>
<td>Psychology in Business and Economics</td>
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<td>CLPS 1820</td>
<td>Language and the Brain</td>
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<td>EDUC 1260</td>
<td>Emotion, Cognition, Education</td>
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<td>PHIL 1770</td>
<td>Philosophy of Mind</td>
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<td>One Independent Study or Approved Seminar, such as:</td>
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<td>CLPS 1390</td>
<td>The Neural Bases of Cognition</td>
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<td>CLPS 1490B</td>
<td>Cognitive Aging and Dementia</td>
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<td>CLPS 1490C</td>
<td>Cognitive Control Functions of the Prefrontal Cortex</td>
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<td>CLPS 1470</td>
<td>Mechanisms of Motivated Decision Making</td>
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<td>Affective Neuroscience</td>
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<td>CLPS 1560</td>
<td>Visually-Guided Action and Cognitive Processes</td>
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<td>CLPS 1760</td>
<td>The Moral Brain</td>
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<td>CLPS 1781</td>
<td>Thinking about the Social World</td>
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<td>CLPS 1783</td>
<td>Nudge: How to Use Social Psychology to Create Social Change</td>
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<td>CLPS 1900</td>
<td>Research Methods And Design</td>
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Total Credits: 12

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
### Requirements Specific for the Sc.B. degree

#### STANDARD PROGRAM FOR THE SC.B. DEGREE

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<tr>
<td>CLPS 0010</td>
<td>Mind, Brain and Behavior: An Interdisciplinary Approach</td>
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<td>CLPS 0900</td>
<td>Statistical Methods</td>
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One approved course in Social/Personality, such as:
- CLPS 0700 Social Psychology
- CLPS 0701 Personality
- CLPS 1700 Abnormal Psychology

One approved course in Perception/Cognition, such as:
- CLPS 0200 Human Cognition
- CLPS 0450 Brain Damage and the Mind
- CLPS 0500 Perception and Mind

One approved course in Development, such as:
- CLPS 0600 Developmental Psychology
- CLPS 0610 Children's Thinking: The Nature of Cognitive Development
- CLPS 0620 Social and Moral Development

One approved course in Learning/Animal Behavior/Behavioral Neuroscience, such as:
- CLPS 0100 Learning and Conditioning
- CLPS 0110 Animal Behavior
- CLPS 0150 Behavioral Neuroscience: Introduction to Biological Psychiatry

Four Approved Electives, such as:
- CLPS 0950 Introduction to programming
- CLPS 1100 Animal Cognition
- CLPS 1150 Memory and the Brain
- CLPS 1160 Evolution and Development of the Brain
- CLPS 1194 Sleep and Chronobiology Research
- CLPS 1200 Thinking
- CLPS 1250 Human Factors
- CLPS 1480B Cognitive Aging and Dementia
- CLPS 1500 Perception and Action
- CLPS 1510 Auditory Perception Laboratory
- CLPS 1650 Child Language Acquisition
- CLPS 1720 Human Resilience
- CLPS 1730 Psychology in Business and Economics
- CLPS 1820 Language and the Brain
- EDUC 1260 Emotion, Cognition, Education
- PHIL 1770 Philosophy of Mind

One Independent Study or Approved Seminar, such as:
- CLPS 1400 The Neural Bases of Cognition
- CLPS 1480B Cognitive Aging and Dementia
- CLPS 1480C Cognitive Control Functions of the Prefrontal Cortex
- CLPS 1470 Mechanisms of Motivated Decision Making
- CLPS 1495 Affective Neuroscience
- CLPS 1560 Visually-Guided Action and Cognitive Processes
- CLPS 1720 Human Resilience
- CLPS 1760 The Moral Brain
- CLPS 1781 Thinking about the Social World
- CLPS 1783 Nudge: How to Use Social Psychology to Create Social Change
- CLPS 1900 Research Methods And Design

One Approved Laboratory Course, such as:
- CLPS 1180A Canine Behavior

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**CLPS 1191** Animal Behavior Laboratory
**CLPS 1193** Laboratory in Genes and Behavior
**CLPS 1290** Laboratory in Cognitive Processes
**CLPS 1490** Functional Magnetic Resonance Imaging: Theory and Practice
**CLPS 1492** Computational Magnetic Resonance Imaging
**CLPS 1510** Auditory Perception Laboratory
**CLPS 1590** Visualizing Vision
**CLPS 1690** Laboratory in Developmental Psychology
**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
- ENGN 1220 Neuro Vision
- MATH 0100 Introductory Calculus, Part II
- NEUR 1030 Neural Systems
- NEUR 1040 Introduction to Neurogenetics
- PHYS 0030 Basic Physics A

**Total Credits:** 17

1. For the current list of approved courses in all categories, see the CLPS Psychology page.

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## 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 [https://www.brown.edu/academics/public-health/undergraduate/](https://www.brown.edu/academics/public-health/undergraduate/) for the current list of approved courses in all categories, see the CLPS Psychology page.

### Requirements for Class of 2020

1. **Core Courses:**
   - **PHP 0310** Health Care in the United States
     - This course is best taken as a freshman or sophomore.
   - **PHP 0320** Introduction to Public Health
     - 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
     - This course is best taken by end of junior year before PHP 1910, Senior Seminar.
   - **PHP 1501** Essentials of Data Analysis
     - This course is best taken by end of junior year before PHP 1910, Senior Seminar.
   - **PHP 1910** Public Health Senior Seminar
     - This course is required for all non-honors seniors. PHP 0320 and PHP 0310 are required prerequisites.

2. **Environmental Health and Policy (Select one of the following):**
   - **PHP 0310** Health Care in the United States
   - **PHP 0320** Introduction to Public Health
   - **PHP 0850** Fundamentals of Epidemiology
   - **PHP 1501** Essentials of Data Analysis
   - **PHP 1910** Public Health Senior Seminar

---

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PHP 1101</td>
<td>World of Food: Personal to Global Perspectives on Nutrition, Agriculture and Policy</td>
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<td>PHP 1700</td>
<td>Current Topics in Environmental Health</td>
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<td>BIOL 1820</td>
<td>Environmental Health and Disease</td>
</tr>
<tr>
<td>ENVS 0705</td>
<td>Equity and the Environment: Movements, Scholarship, Solutions</td>
</tr>
<tr>
<td>ENVS 1580</td>
<td>Environmental Stewardship and Resilience in Urban Systems</td>
</tr>
</tbody>
</table>

### 3. Health, Health Care Systems and Policy (Select one of the following:)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHP 1070</td>
<td>The Burden of Disease in Developing Countries</td>
</tr>
<tr>
<td>PHP 1100</td>
<td>Comparative Health Care Systems</td>
</tr>
<tr>
<td>PHP 1500</td>
<td>Global Health Challenges</td>
</tr>
<tr>
<td>PHP 1520</td>
<td>Emergency Medical Systems: An Anatomy of Critical Performance</td>
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<td>PHP 1802S</td>
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<tr>
<td>PHP 1820</td>
<td>Designing Education for Better Prisoner and Community Health</td>
</tr>
<tr>
<td>ECON 1360</td>
<td>Health Economics</td>
</tr>
<tr>
<td>PLCY 1700K</td>
<td>Health Policy Challenges</td>
</tr>
</tbody>
</table>

### 4. Social and Behavioral Science for Prevention (Select one of the following:)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PHP 1010</td>
<td>Doctors and Patients- Clinical Communication in Medicine</td>
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<tr>
<td>PHP 1400</td>
<td>HIV/AIDS in Africa: A Multidisciplinary Approach to Support HIV/AIDS Care and Treatment Programs</td>
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<td>PHP 1540</td>
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<tr>
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<td>PHP 2355</td>
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</tr>
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<td>Politics of Food</td>
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### 5. Humanities/Fine Arts/Humanistic Social Sciences Course for Public Health (Select one of the following:)

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</tr>
<tr>
<td>AFRI 1060Z</td>
<td>Race, Sexuality, and Mental Disability History</td>
</tr>
<tr>
<td>AMST 1600C</td>
<td>The Anti-Trafficking Savior Complex: Saints, Sinners, and Modern-Day Slavery</td>
</tr>
<tr>
<td>AMST 1601</td>
<td>Health and Healing in American History</td>
</tr>
<tr>
<td>COST 0100</td>
<td>Introduction to Contemplative Studies</td>
</tr>
<tr>
<td>ENGL 1030C</td>
<td>Writing Science</td>
</tr>
<tr>
<td>ETHN 1750B</td>
<td>Treaty Rights and Food Fights: Eating Local in Indian Country</td>
</tr>
<tr>
<td>ETHN 1890J</td>
<td>Native American Environmental Health Movements</td>
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<tr>
<td>GNSS 0090C</td>
<td>Reproductive Health: Science and Politics</td>
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<tr>
<td>GNSS 0120</td>
<td>Introduction to Gender and Sexuality Studies</td>
</tr>
<tr>
<td>GNSS 1961H</td>
<td>Literary Imaginations of the Law: Human Rights and Literature</td>
</tr>
<tr>
<td>HISP 0490A</td>
<td>Spanish for Health Care Workers</td>
</tr>
<tr>
<td>HISP 0750Q</td>
<td>Health, Illness and Medicine in Spanish American Literature and Film</td>
</tr>
<tr>
<td>HIST 0150H</td>
<td>Foods and Drugs in History</td>
</tr>
<tr>
<td>HIST 0270B</td>
<td>From the Columbian Exchange to Climate Change: Modern Global Environmental History</td>
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<tr>
<td>HIST 0286A</td>
<td>History of Medicine I: Medical Traditions in the Old World Before 1700</td>
</tr>
<tr>
<td>HIST 1080</td>
<td>Humanitarianism and Conflict in Africa</td>
</tr>
<tr>
<td>HIST 1830M</td>
<td>From Medieval Bedlam to Prozac Nation: Intimate Histories of Psychiatry and Self</td>
</tr>
<tr>
<td>HIST 1977I</td>
<td>Gender, Race, and Medicine in the Americas</td>
</tr>
<tr>
<td>HIST 1960Q</td>
<td>Medicine and Public Health in Africa</td>
</tr>
<tr>
<td>HIST 1972H</td>
<td>U.S. Human Rights in a Global Age</td>
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<tr>
<td>HMAN 1970G</td>
<td>International Perspectives on NGOs, Public Health, and Health Care Inequalities</td>
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<tr>
<td>LACA 1503H</td>
<td>Sexuality, Human Rights and Health: Latin American Perspective and Brazilian Experiences</td>
</tr>
<tr>
<td>PHIL 0060</td>
<td>Modern Science and Human Values</td>
</tr>
<tr>
<td>PHIL 0260</td>
<td>Philosophy of Social Science</td>
</tr>
<tr>
<td>PHIL 0390</td>
<td>Global Justice</td>
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<tr>
<td>POBS 1501E</td>
<td>Histories of Global Health from Lusophone Africa: Biomedical Actions in Angola, Mozambique, Guinea</td>
</tr>
<tr>
<td>TAPS 1281W</td>
<td>Artists and Scientists as Partners</td>
</tr>
</tbody>
</table>

### 6. General Electives (Class of 2020: Select three)

General electives may be selected from: A. All PHP and BIOL course offerings; B. the approved content area electives (#2, #3, and #4) listed above; or C. the approved general electives listed below. No more than two (2) BIOL courses can count as general electives.

<table>
<thead>
<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>PHP 0030</td>
<td>Health of Hispaniola</td>
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<tr>
<td>PHP 0050</td>
<td>Pain and the Human Condition: Exploring the Science, Medicine, and Culture of Pain</td>
</tr>
<tr>
<td>PHP 1400</td>
<td>HIV/AIDS in Africa: A Multidisciplinary Approach to Support HIV/AIDS Care and Treatment Programs</td>
</tr>
<tr>
<td>PHP 1680I</td>
<td>Pathology to Power: Disability, Health and Community</td>
</tr>
<tr>
<td>AFRI 1060W</td>
<td>Policy, Culture and Discourse that Shape Health and Access to Healthcare</td>
</tr>
<tr>
<td>AMST 1601</td>
<td>Health and Healing in American History</td>
</tr>
<tr>
<td>AMST 1906P</td>
<td>Food in American Society and Culture</td>
</tr>
<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems: Environment, Development, and Governance</td>
</tr>
<tr>
<td>ANTH 0300</td>
<td>Culture and Health</td>
</tr>
<tr>
<td>ANTH 1020</td>
<td>AIDS in Global Perspective</td>
</tr>
<tr>
<td>ANTH 1242</td>
<td>Bioethics and Culture</td>
</tr>
<tr>
<td>ANTH 1300</td>
<td>Anthropology of Addictions and Recovery</td>
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</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Undergraduate Concentrations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ANTH 1310</td>
<td>International Health: Anthropological Perspectives</td>
</tr>
<tr>
<td>BIOL 0030</td>
<td>Principles of Nutrition (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0040</td>
<td>Nutrition for Fitness and Physical Activity</td>
</tr>
<tr>
<td>BIOL 0140K</td>
<td>Conservation Medicine</td>
</tr>
<tr>
<td>BIOL 0180</td>
<td>The Biology of AIDS</td>
</tr>
<tr>
<td>BIOL 0190E</td>
<td>Botanical Roots of Modern Medicine</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology (Human Biology/Physiology course)</td>
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<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0860</td>
<td>Diet and Chronic Disease</td>
</tr>
<tr>
<td>BIOL 0920A</td>
<td>Controversies in Medicine (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 1920B</td>
<td>Health Inequality in Historical Perspective</td>
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<tr>
<td>BIOL 1920C</td>
<td>Social Contexts of Disease</td>
</tr>
<tr>
<td>BIOL 1920D</td>
<td>Race, Difference and Biomedical Research: Historical Considerations</td>
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<tr>
<td>CLPS 0700</td>
<td>Social Psychology</td>
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<tr>
<td>CLPS 1700</td>
<td>Abnormal Psychology</td>
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<tr>
<td>CLPS 1783</td>
<td>Nudge: How to Use Social Psychology to Create Social Change</td>
</tr>
<tr>
<td>ECON 0390</td>
<td>Income, Wealth, and Health Inequality in the United States</td>
</tr>
<tr>
<td>ECON 0510</td>
<td>Development and the International Economy</td>
</tr>
<tr>
<td>EDUC 0800</td>
<td>Introduction to Human Development and Education</td>
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<td>ENVS 0490</td>
<td>Environmental Science in a Changing World</td>
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<td>ENVS 1105</td>
<td>Introduction to Environmental GIS</td>
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<td>ETHN 1890J</td>
<td>Native American Environmental Health Movements</td>
</tr>
<tr>
<td>GNSS 0090C</td>
<td>Reproductive Health: Science and Politics</td>
</tr>
<tr>
<td>HMAN 1970G</td>
<td>International Perspectives on NGOs, Public Health, and Health Care Inequalities</td>
</tr>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>NEUR 0700</td>
<td>Psychoactive Drugs and Society</td>
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<td>PLCY 1700V</td>
<td>Nonprofit Organizations</td>
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<td>PLCY 1802</td>
<td>Engaged Research Engaged Publics</td>
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<td>PLCY 1910</td>
<td>Social Entrepreneurship</td>
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<tr>
<td>POLS 1740</td>
<td>Politics of Food</td>
</tr>
<tr>
<td>SOC 0230</td>
<td>Sex, Gender, and Society</td>
</tr>
<tr>
<td>SOC 0300B</td>
<td>Environment and Society</td>
</tr>
<tr>
<td>SOC 0300E</td>
<td>HIV/AIDS: Politics, Culture and Society</td>
</tr>
<tr>
<td>SOC 0300F</td>
<td>Unequal From Birth: Child Health From a Social Perspective</td>
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<td>SOC 0300K</td>
<td>Inequalities and Health</td>
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<tr>
<td>SOC 1250</td>
<td>Perceptions of Mental Illness</td>
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<td>SOC 1315</td>
<td>Macro-Organizational Theory: Organizations in Social Context</td>
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<tr>
<td>SOC 1410</td>
<td>Aging and the Quality of Life</td>
</tr>
<tr>
<td>SOC 1540</td>
<td>Human Needs and Social Services</td>
</tr>
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<td>SOC 1550</td>
<td>Sociology of Medicine</td>
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<td>SOC 1870D</td>
<td>Aging and Social Policy</td>
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<tr>
<td>SOC 1871H</td>
<td>Social Perspectives on HIV/AIDS</td>
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<tr>
<td>SOC 1871N</td>
<td>Military Health: The Quest for Healthy Violence</td>
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<tr>
<td>STS 0700B</td>
<td>Science and Social Controversy</td>
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<tr>
<td>STS 1700C</td>
<td>Science and Technology Policy in the Global South</td>
</tr>
<tr>
<td>UNIV 0090</td>
<td>Meditation and the Brain: Applications in Basic and Clinical Science</td>
</tr>
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</table>

Total Credits: 12

Requirements for Class of 2021

1. Core Courses: (non-substitutable; 4 required for honors, 5 for non-honors)

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
<td>PHP 0310</td>
<td>Health Care in the United States</td>
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<td>PHP 0320</td>
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<tr>
<td>PHP 0850</td>
<td>Fundamentals of Epidemiology</td>
</tr>
<tr>
<td>PHP 1501</td>
<td>Essentials of Data Analysis</td>
</tr>
<tr>
<td>PHP 1910</td>
<td>Public Health Senior Seminar</td>
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</table>

2. Environmental Health and Policy (Select one of the following): 1

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3. Health, Health Care Systems and Policy (Select one of the following): 1

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<td>The Burden of Disease in Developing Countries</td>
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<td>Comparative Health Care Systems</td>
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<td>Health Economics</td>
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### 4. Social and Behavioral Science for Prevention (Select one of the following):

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<td>PHP 2355</td>
<td>Designing and Evaluating Public Health Interventions</td>
</tr>
<tr>
<td>POLS 1740</td>
<td>Politics of Food</td>
</tr>
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</table>

### 5. Biology (Select one of the following)

Note that AP Biology does not exempt students from this requirement. Most students will likely take BIOL 0200. Students who place out of BIOL 0200 with AP credit can choose one of the other four (4) courses.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
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<td>BIOL 0470</td>
<td>Genetics</td>
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<tr>
<td>BIOL 0510</td>
<td>Introductory Microbiology</td>
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<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
</tbody>
</table>

### 6. Humanities/Fine Arts/Humanistic Social Sciences Course for Public Health (Select one of the following)

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</tr>
<tr>
<td>ETHN 1890J</td>
<td>Native American Environmental Health Movements</td>
</tr>
<tr>
<td>GNSS 0090C</td>
<td>Reproductive Health: Science and Politics</td>
</tr>
<tr>
<td>GNSS 0120</td>
<td>Introduction to Gender and Sexuality Studies</td>
</tr>
<tr>
<td>GNSS 1961H</td>
<td>Literary Imaginations of the Law: Human Rights and Literature</td>
</tr>
<tr>
<td>HISP 0490A</td>
<td>Spanish for Health Care Workers</td>
</tr>
<tr>
<td>HISP 0750Q</td>
<td>Health, Illness and Medicine in Spanish American Literature and Film</td>
</tr>
<tr>
<td>HIST 0150H</td>
<td>Foods and Drugs in History</td>
</tr>
<tr>
<td>HIST 0270B</td>
<td>From the Columbian Exchange to Climate Change: Modern Global Environmental History</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 1080</td>
<td>Humanitarianism and Conflict in Africa</td>
</tr>
</tbody>
</table>

### 7. General Electives (Class of 2021: Select two)

General electives may be selected from: A. All PHP and BIOL course offerings; B. the approved content area electives (#2, #3, #4, and #5) listed above; or C. the approved general electives listed below. No more than one (1) BIOL course can count as a general elective.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHP 0030</td>
<td>Health of Hispaniola</td>
</tr>
<tr>
<td>PHP 0050</td>
<td>Pain and the Human Condition: Exploring the Science, Medicine, and Culture of Pain</td>
</tr>
<tr>
<td>PHP 1400</td>
<td>HIV/AIDS in Africa: A Multidisciplinary Approach to Support HIV/AIDS Care and Treatment Programs</td>
</tr>
<tr>
<td>PHP 1680I</td>
<td>Pathology to Power: Disability, Health and Community</td>
</tr>
<tr>
<td>AFRI 1060W</td>
<td>Policy, Culture and Discourse that Shape Health and Access to Healthcare</td>
</tr>
<tr>
<td>AMST 1601</td>
<td>Health and Healing in American History</td>
</tr>
<tr>
<td>AMST 1906P</td>
<td>Food in American Society and Culture</td>
</tr>
<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems: Environment, Development, and Governance</td>
</tr>
<tr>
<td>ANTH 0300</td>
<td>Culture and Health</td>
</tr>
<tr>
<td>ANTH 1020</td>
<td>AIDS in Global Perspective</td>
</tr>
<tr>
<td>ANTH 1242</td>
<td>Bioethics and Culture</td>
</tr>
<tr>
<td>ANTH 1300</td>
<td>Anthropology of Addictions and Recovery</td>
</tr>
<tr>
<td>ANTH 1310</td>
<td>International Health: Anthropological Perspectives</td>
</tr>
<tr>
<td>BIOL 0030</td>
<td>Principles of Nutrition (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0040</td>
<td>Nutrition for Fitness and Physical Activity</td>
</tr>
<tr>
<td>BIOL 0140K</td>
<td>Conservation Medicine</td>
</tr>
<tr>
<td>BIOL 0180</td>
<td>The Biology of AIDS</td>
</tr>
<tr>
<td>BIOL 0190E</td>
<td>Botanical Roots of Modern Medicine</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology (Human Biology/Physiology course)</td>
</tr>
<tr>
<td>BIOL 0860</td>
<td>Diet and Chronic Disease</td>
</tr>
<tr>
<td>BIOL 0920A</td>
<td>Controversies in Medicine (Human Biology/Physiology course)</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
and write the honors thesis. Thus, thirteen courses are required for completion of the concentration requirements for an honors track student. Please visit https://www.brown.edu/academics/public-health/undergraduate/curriculum for details or email Elizabeth Mellen (elizabeth_mellen@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 concentration in public policy is organized around the interdisciplinary and comparative study of human societies, but with a particular focus on the rules and norms by which we govern ourselves. The concentration is grounded in the analysis of pressing social problems and the design, implementation, and evaluation of better policies and practices. This commitment to using knowledge to improve the life chances of people who occupy different positions of wealth and power, and who have competing and contentious ideas of about the common good, makes public policy a value-laden and political enterprise that is as much an art as it is a science. It is also a team sport that requires players with different skills and talents to work together across a wide variety of settings.

Students will learn how social, economic, and political issues become the object of public policy, how policy decisions are crafted, made and implemented, as well as different strategies for evaluating their impact. The concentration draws its instructors from a wide variety of disciplines and offers students opportunities for engaged scholarship at the local, national, and global levels. With the support of the advisory team, students develop their own curriculum of study, integrating core courses with electives, internships, independent research, and a capstone experience. The Public Policy concentration will only accept new declarations through the class of 2023. Students in any class year can learn more about the new concentration (https://watson.brown.edu/iapa/about/faqs) in International and Public Affairs: Policy and Governance Track.

**Required Courses: 10 courses + capstone**

The Public Policy concentration will be available to students graduating through the class of 2023.

**Core Courses:**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLCY 0100 Introduction to Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>Ethics and Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>POLS 1050 Ethics and Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>or PLCY 1700T Good Government</td>
<td></td>
</tr>
<tr>
<td>Economics for Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1110 Intermediate Microeconomics</td>
<td></td>
</tr>
<tr>
<td>ECON 1130 Intermediate Microeconomics</td>
<td></td>
</tr>
<tr>
<td>(Mathematical)</td>
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</tr>
<tr>
<td>EDUC 1130 Economics of Education I</td>
<td></td>
</tr>
<tr>
<td>Statistics for Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>POLS 1600 Political Research Methods</td>
<td></td>
</tr>
<tr>
<td>EDUC 1100 Introduction to Qualitative Research Methods</td>
<td></td>
</tr>
<tr>
<td>ECON 1620 Introduction to Econometrics</td>
<td></td>
</tr>
<tr>
<td>ECON 1630 Mathematical Econometrics I</td>
<td></td>
</tr>
<tr>
<td>SOC 1100 Introductory Statistics for Social Research</td>
<td></td>
</tr>
<tr>
<td>Policy Analysis and Program Evaluation</td>
<td>1</td>
</tr>
<tr>
<td>PLCY 1200 Program Evaluation</td>
<td></td>
</tr>
<tr>
<td>or EDUC 1160 Evaluating the Impact of Social Programs</td>
<td></td>
</tr>
<tr>
<td>Elective Courses:</td>
<td>12</td>
</tr>
<tr>
<td>Three Broad Elective Courses: May be taken in any policy area</td>
<td>3</td>
</tr>
<tr>
<td>Two more electives in one of the areas you have already studied</td>
<td>2</td>
</tr>
</tbody>
</table>

Sample electives may include the following:

**Honors:**

An Honors track is available for students who qualify. Honors track students do not enroll in PHP1910, Senior Seminar, during the Fall semester of their senior year, but rather are required to enroll in PHP 1980 for both semesters of their senior year to conduct research and write the honors thesis. Thus, thirteen courses are required for

**Total Credits: 12**

**Honors:**

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

RELS 0011 Faith and Violence
RELS 0015 Sacred Stories
RELS 0022 Introduction to the New Testament
RELS 0025 Wealth: Religious Approaches
RELS 0050 Love: The Concept and Practice
RELS 0055 Modern Problems of Belief
RELS 0056 Spiritual But Not Religious: Making Spirituality in America
RELS 0060B Foreigners, Refugees, and the Ethics of Minority (JUDS 0061)

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

Health Policy
- PHP 1100 Comparative Health Care Systems
- PHP 1520 Emergency Medical Systems: An Anatomy of Critical Performance
- PHP 1530 Case Studies in Public Health: The Role of Governments, Communities and Professions
- PLCY 1700K Health Policy Challenges

Technology Policy
- CSCI 1800 Cybersecurity and International Relations
- POLS 1822X GIS and Public Policy
- STS 1700C Science and Technology Policy in the Global South

Environmental Policy
- ENV 1350 Environmental Economics and Policy
- ENV 1410 Environmental Law and Policy
- ENV 1530 From Locke to Deep Ecology: Property Rights and Environmental Policy
- ENV 1555 Urban Agriculture: The Importance of Localized Food Systems
- PHP 1700 Current Topics in Environmental Health

Goverance, Law, and Ethics
- PLCY 1700Z State and Local Government
- PLCY 1701H Congressional Leadership, Parties and Public Policy
- POLS 0022 City Politics
- POLS 1010 Topics in American Constitutional Law

Social Policy
- ECON 1170 Welfare Economics and Social Choice Theory
- PLCY 1700B Social Welfare Policy in the United States
- PLCY 1701S Policies Affecting Working Families
- PLCY 1701M Juvenile Justice Institutions and Policy
- SOC 1540 Human Needs and Social Services

Urban Policy
- ECON 1420 Urbanization in China
- PLCY 1700Q Urban Policy Challenges: Spatial Inequality in Metropolitan America
- PLCY 1700R Urban Revitalization: Lessons from the Providence Plan
- SOC 1600 Comparative Development
- URBN 1870F Housing and Homelessness

Modes of Social Change
- PLCY 1700V Nonprofit Organizations
- PLCY 1701Q Leading Social Ventures - Social Entrepreneurship in Action
- PLCY 1800 Investigating Modes of Social Change
- PLCY 1910 Social Entrepreneurship
- SOC 1870A Investing in Social Change

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.
Undergraduate Concentrations

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELS 0065</td>
<td>On Being Human: Religious and Philosophical Conceptions of Self</td>
</tr>
<tr>
<td>RELS 0068</td>
<td>Religion and Torture</td>
</tr>
<tr>
<td>RELS 0087</td>
<td>Religion in America</td>
</tr>
<tr>
<td>RELS 0088</td>
<td>Judaism, Christianity, and Islam</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>
</tr>
<tr>
<td>RELS 0090K</td>
<td>Christmas in America</td>
</tr>
<tr>
<td>RELS 0090M</td>
<td>Islam, Violence and Media</td>
</tr>
<tr>
<td>RELS 0095A</td>
<td>Islam from the Ground Up</td>
</tr>
<tr>
<td>RELS 0096</td>
<td>The Imaginary Lives of Muslims</td>
</tr>
<tr>
<td>RELS 0105</td>
<td>Judaism</td>
</tr>
<tr>
<td>RELS 0110</td>
<td>Christians</td>
</tr>
<tr>
<td>RELS 0150</td>
<td>Islam Unveiled</td>
</tr>
<tr>
<td>RELS 0195</td>
<td>Gender in Early Jewish and Christian Narratives</td>
</tr>
<tr>
<td>RELS 0200A</td>
<td>Christianity and Economic Inequality</td>
</tr>
<tr>
<td>RELS 0240</td>
<td>Judaism and Christianity in Conflict</td>
</tr>
<tr>
<td>RELS 0260</td>
<td>Religion Gone Wild: Spirituality and the Environment</td>
</tr>
<tr>
<td>RELS 0290D</td>
<td>Islamic Sexualities</td>
</tr>
<tr>
<td>RELS 0290H</td>
<td>Defense Against the Dark Arts in the Ancient World</td>
</tr>
<tr>
<td>RELS 0320</td>
<td>Israelite Religion</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>
</tr>
<tr>
<td>RELS 0410</td>
<td>Christianity in Late Antiquity</td>
</tr>
<tr>
<td>RELS 0420</td>
<td>Sacred Bodies</td>
</tr>
<tr>
<td>RELS 0430</td>
<td>Sacred Stories</td>
</tr>
<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>
</tr>
<tr>
<td>RELS 0600C</td>
<td>Black &amp; Brown Islam in the US</td>
</tr>
<tr>
<td>RELS 0640</td>
<td>Dying To Be With God: Jihad, Past and Present</td>
</tr>
<tr>
<td>RELS 0700B</td>
<td>The Bible as Literature (JUDS 0830)</td>
</tr>
<tr>
<td>RELS 0810</td>
<td>Conservatives vs. Liberals: Religion and Identity in America</td>
</tr>
<tr>
<td>RELS 0820</td>
<td>African American Religious Strategies: Martin and Malcolm</td>
</tr>
<tr>
<td>RELS 0825</td>
<td>Foundational Texts in African American Theology</td>
</tr>
<tr>
<td>RELS 0830</td>
<td>Religion, Reason, and Ethics from Kant to Nietzsche</td>
</tr>
<tr>
<td>RELS 0835</td>
<td>Black and Brown Religion in America</td>
</tr>
<tr>
<td>RELS 0840</td>
<td>Religion and Politics</td>
</tr>
<tr>
<td>RELS 0845</td>
<td>Religious Freedom in America</td>
</tr>
<tr>
<td>RELS 0850</td>
<td>Liberation Theology in the Americas</td>
</tr>
<tr>
<td>RELS 1050A</td>
<td>Problems in Israelite Religion and Ancient Judaism (JUDS 1625)</td>
</tr>
<tr>
<td>RELS 1050C</td>
<td>Prophets and Priests in Exile: Biblical Literature of the 6th Century BCE (JUDS 1690)</td>
</tr>
<tr>
<td>RELS 1050D</td>
<td>Jewish Magic (JUDS 1801)</td>
</tr>
<tr>
<td>RELS 1130</td>
<td>Philo</td>
</tr>
<tr>
<td>RELS 1144</td>
<td>Adam and Eve in Early Jewish and Christian Interpretation</td>
</tr>
<tr>
<td>RELS 1150</td>
<td>Religion in the Dead Sea Scrolls</td>
</tr>
<tr>
<td>RELS 1300</td>
<td>Ancient Christianity and the Sensing Body</td>
</tr>
<tr>
<td>RELS 1325A</td>
<td>Educating Bodies in Ancient Christianity</td>
</tr>
<tr>
<td>RELS 1325B</td>
<td>Early Christian Asceticism: Rhetorics of Practice</td>
</tr>
<tr>
<td>RELS 1325C</td>
<td>The Virgin Mary in Christian Tradition</td>
</tr>
<tr>
<td>RELS 1325D</td>
<td>Desire and the Sacred</td>
</tr>
<tr>
<td>RELS 1340A</td>
<td>Roman Religion (CLAS 1410)</td>
</tr>
<tr>
<td>RELS 1370A</td>
<td>Augustine and Hegel</td>
</tr>
<tr>
<td>RELS 1370B</td>
<td>Philosophy of Mysticism</td>
</tr>
<tr>
<td>RELS 1370C</td>
<td>David Hume and Religion</td>
</tr>
<tr>
<td>RELS 1370D</td>
<td>Process Theology</td>
</tr>
<tr>
<td>RELS 1380A</td>
<td>Money, Media, and Religion</td>
</tr>
<tr>
<td>RELS 1385</td>
<td>Religion and Postmodernism</td>
</tr>
<tr>
<td>RELS 1500</td>
<td>From Moses to Muhammad: Prophets of the Ancient World</td>
</tr>
<tr>
<td>RELS 1510</td>
<td>Islam in South Asia</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 1530B</td>
<td>Heresy and Orthodoxy in Islamic Thought</td>
</tr>
<tr>
<td>RELS 1530D</td>
<td>Medieval Islamic Sectarianism</td>
</tr>
<tr>
<td>RELS 1530F</td>
<td>The History of Emotions and Medieval Islamic Tradition</td>
</tr>
<tr>
<td>RELS 1540</td>
<td>Monks, Mystics and Martyrs: Abrahamic Traditions Compared</td>
</tr>
<tr>
<td>RELS 1610</td>
<td>Sacred Sites: Law, Politics, Religion</td>
</tr>
<tr>
<td>RELS 1620</td>
<td>Disability in Antiquity</td>
</tr>
<tr>
<td>RELS 1650</td>
<td>Gospel Music from the Church to the Streets</td>
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<td>RELS 1760</td>
<td>Religion and Suspicion</td>
</tr>
<tr>
<td>RELS 1830A</td>
<td>Pragmatism, Religion, and Politics</td>
</tr>
<tr>
<td>RELS 1880A</td>
<td>The Gift in Antiquity</td>
</tr>
<tr>
<td>RELS 1990</td>
<td>Individual Study Project</td>
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<tr>
<td>RELS 2000</td>
<td>Buddhism and Death</td>
</tr>
<tr>
<td>RELS 2050</td>
<td>Asian Classics</td>
</tr>
<tr>
<td>RELS 2080</td>
<td>Japan: Nature, Ritual and the Arts</td>
</tr>
<tr>
<td>RELS 2090L</td>
<td>Pilgrimage and Quest</td>
</tr>
<tr>
<td>RELS 2100</td>
<td>Buddhist Thought, Practice, and Society</td>
</tr>
<tr>
<td>RELS 2120</td>
<td>The Classical Chinese Philosophy of Life</td>
</tr>
<tr>
<td>RELS 2140</td>
<td>Food, Religion and Politics in South Asia</td>
</tr>
<tr>
<td>RELS 2145</td>
<td>Karma, Rebirth and Liberation: Life and Death in South Asian Religions</td>
</tr>
<tr>
<td>RELS 2200</td>
<td>Engaged Buddhism</td>
</tr>
<tr>
<td>RELS 2500</td>
<td>The Theory and Practice of Buddhist Meditation</td>
</tr>
<tr>
<td>RELS 2510</td>
<td>Confucian Ethics</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
and satisfied all other concentration requirements. To be eligible to write a thesis, a student must have earned a grade point average of greater than 3.5 (A=4, B=3, C=2) on courses that count toward the program. In order to receive Honors, the student’s thesis must earn an A from its two readers, and the student must waive this “S/NC” limit. Writing the thesis is a necessary, but not sufficient, condition for receiving Honors. In order to receive Honors, the student’s thesis must earn an A from its two readers, and the student must have earned a grade point average of greater than 3.5 in the concentration and satisfied all other concentration requirements.

### 4. Courses in Other Departments

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 must complete at least five courses in Religious Studies at Brown.

### 5. Capstone Project

No later than the end of spring registration in the junior year, the concentrator will determine how they will complete a senior capstone project for this requirement - either by selecting a capstone course, or by undertaking an honors thesis. A capstone course will be selected in consultation with the concentration advisor and other faculty as appropriate. Within the frame of this capstone course and through work completed for the course, the concentrator will address the theoretical and interpretive issues of their particular focus in the Religious Studies concentration.

### Honors Thesis (Optional)

A thesis is an opportunity for students to conduct extended independent research under the guidance of faculty. If a student chooses to write an honors thesis, in addition to completing the typical eight concentration courses (in addition to RELS 1000) the student will enroll in RELS 1999 during both semesters of the senior year. Whether or not a student receives honors, RELS 1999 will serve as the student’s capstone course. To be eligible to write a thesis, a student must have earned a grade point average of greater than 3.5 (A=4, B=3, C=2) on courses that count toward the concentration. Additionally, to be eligible for honors, concentrators may take no more than two of the concentration courses with the “S/NC” option, after declaring a Religious Studies concentration. (Note: if a student is philosophically committed to taking the majority of her or his courses at Brown as “S/NC,” that student may petition the Department to waive this “S/NC” limit.) Writing the thesis is a necessary, but not sufficient, condition for receiving Honors. In order to receive Honors, the student’s thesis must earn an A from its two readers, and the student must have earned a grade point average of greater than 3.5 in the concentration and satisfied all other concentration requirements.
**Requirements for the AB Degree**

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.

**Courses**

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
- RUSS 1300 Russian Literature in Translation II: Tolstoy to Solzhenitsyn
- RUSS 1320 Soviet Literature from 1917 to 1953
- RUSS 1330 Soviet Culture: 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 Dostoevsky
- 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
- POLS 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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
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 0990 Introductory Calculus, Part I 1
- SOC 1100 Introductory Statistics for Social Research 1
- or APMA 0650 Essential Statistics 1
- or ECON 1620 Introduction to Econometrics 1
- SOC 1020 Methods of Social Research 1
- SOC 2010 Multivariate Statistical Methods I 1
- SOC 1010 Classical Sociological Theory 1
- SOC 1950 Senior Seminar 1

Three (3) substantive or theory courses (non-methodological courses) in Sociology, two (2) of which must be at the 1000-level or above. 3

Three (3) of the following advanced analysis courses: 3

- 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
- SOC 2020 Multivariate Statistical Methods II
- SOC 2210 Qualitative Methods
- SOC 2230 Techniques of Demographic Analysis
- SOC 2240 Event History Analysis
- SOC 2610 Spatial Thinking in Social Science
- SOC 2612 Geographic Information Systems and Spatial Analysis for the Social Sciences
- SOC 2960G Spatial Data Analysis Techniques in the Social Sciences
- SOC 2960Y Causal Analysis
- SOC 2961A Advanced Spatial Data Analysis Techniques in the Social Sciences

Research experience (1 course) 0-1

A one-semester research internship (not for credit or for credit as SOC 1970 - Independent Study), or a summer research internship (not for credit). 12-13

***See the Sociology website http://www.brown.edu/academics/sociology/ for details regarding Honors and Independent Studies

**Course substitutions:** Students may petition the Director or Co-Director of Undergraduate Studies 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**

Social Analysis and Research requires all concentrators to complete a thesis or capstone project in their senior year. The purpose of the thesis or capstone project is to allow students an opportunity to apply the knowledge they acquired on a topic of their own interests. To fulfill this requirement students enroll in SOC 1950 (http://bulletin.brown.edu/search/?P=SOC%201950) – Senior Seminar. 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.

An undergraduate thesis must ask an original research question, answer it with appropriate evidence, and place that work within relevant scholarly literature in sociology. The thesis is supervised by a faculty member who serves as the primary advisor, and one additional faculty member who serves as a reader. By the end of the sixth semester, students must submit a prospectus of the senior thesis to the Co-Director of Undergraduate Studies. At the start of the seventh semester students should submit to the Co-Director of Undergraduate Studies 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 a primary advisor on the thesis. Only a senior thesis qualifies the student for Honors.

A capstone project is an independent, student-initiated project or experience developed during the Senior Seminar (SOC 1950) that connects in a meaningful way to the learning in the concentration. A capstone project differs from a thesis in its scholarly content and form, and it depends on the evaluation of 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 are complemented by a paper or report that situates the central subject matter of the project within the context of sociological scholarship.

**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 require 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 (http://bulletin.brown.edu/search/?P=SOC%201970)) 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**

The concentration in Sociology (leading to a Bachelor of Arts) provides a foundation in sociological theory and methods and the opportunity to cultivate more specialized knowledge in the discipline's substantive interests. Students develop that focus through their coursework,
Ten courses to complete the concentration.

**Required core:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>SOC 0010</td>
<td>Social Forces: An Introduction to Sociology</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1010</td>
<td>Classical Sociological Theory</td>
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</tr>
<tr>
<td>or CLPS 0900</td>
<td>Statistical Methods</td>
<td>1</td>
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<td>1</td>
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**5 additional courses:**

<table>
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<tr>
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<tr>
<td></td>
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<td></td>
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<td>Relevant Electives:&quot;</td>
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</table>

**Total Credits**

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<tr>
<th>Course Code</th>
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<td>Market and Social Surveys</td>
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<td>Future of Work</td>
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<td>Market Research in Public and Private Sectors</td>
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<tr>
<td>SOC 1311</td>
<td>Micro-O rganizational Theory: Social Behavior in Organizations (If not used to meet the &quot;Foundations&quot; requirement, above)</td>
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<tr>
<td>SOC 1315</td>
<td>Macro-O rganizational Theory: Organizations in Social Context (If not used to meet the &quot;Foundations&quot; requirement, above)</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1870A</td>
<td>Investing in Social Change</td>
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<td>SOC 1870L</td>
<td>The Economic Foundations of Everyday Life</td>
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<td>SOC 1872H</td>
<td>Sociology of FIRE: Finance, Insurance, + Real Estate</td>
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**Undergraduate Concentrations**

**Standard program for the A.B. degree**

Ten courses are required to complete the concentration.

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**Organizational Studies Track**

Ten courses to complete the concentration

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**Foundations of Organizational Studies (choose two of the following):**

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<td>Micro-O rganizational Theory: Social Behavior in Organizations</td>
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<td>Macro-O rganizational Theory: Organizations in Social Context</td>
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<td>SOC 1060</td>
<td>Leadership in Organizations</td>
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<td>SOC 1070</td>
<td>Introduction to Economic Sociology</td>
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<td>SOC 1115</td>
<td>The Enlightened Entrepreneur: Changemakers, Inspired Protagonists and Unreasonable People</td>
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<td>Focus Groups for Market and Social Research</td>
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<td>Context Research for Innovation</td>
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<td>Human Factors</td>
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<td>CLPS 1470</td>
<td>Mechanisms of Motivated Decision Making</td>
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<td>CLPS 1730</td>
<td>Psychology in Business and Economics</td>
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<td>ECON 0110</td>
<td>Principles of Economics</td>
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<td>ECON 1760</td>
<td>Financial Institutions</td>
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<tr>
<td>ECON 1765</td>
<td>Finance, Regulation, and the Economy: Research</td>
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<tr>
<td>ECON 1790</td>
<td>Corporate Governance and Management</td>
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<tr>
<td>EDUC 1200</td>
<td>History of American School Reform</td>
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<td>EDUC 1630</td>
<td>Strategic Management for School System Excellence</td>
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<tr>
<td>EDUC 1650</td>
<td>Policy Implementation in Education</td>
<td>1</td>
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<tr>
<td>EDUC 1730</td>
<td>American Higher Education in Historical Context</td>
<td>1</td>
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<tr>
<td>ETHN 1890C</td>
<td>Business, Culture, and Globalization: An Ethnographic Perspective</td>
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<tr>
<td>ENGN 1930S</td>
<td>Land Use and Built Environment: An Entrepreneurial View</td>
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<td>HIST 0150A</td>
<td>History of Capitalism</td>
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<td>PLCY 1700V</td>
<td>Nonprofit Organizations</td>
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<tr>
<td>PLCY 1701K</td>
<td>Governance in the Academy: A University at Work in the 21st Century</td>
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<td>PLCY 1701Q</td>
<td>Leading Social Ventures - Social Entrepreneurship in Action</td>
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<td>PLCY 1824</td>
<td>Social Change and Building Powerful Organizations</td>
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<td>PLCY 1910</td>
<td>Social Entrepreneurship</td>
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<tr>
<td>POLS 1150</td>
<td>Prosperity: The Ethics and Economics of Wealth Creation</td>
<td>1</td>
</tr>
<tr>
<td>POLS 1240</td>
<td>Politics, Markets and States in Developing Countries</td>
<td>1</td>
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<tr>
<td>POLS 1820W</td>
<td>Market Liberalism: Origins, Principles and Contemporary Applications</td>
<td>1</td>
</tr>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
Additional Restrictions to the Organizational Studies Track:

Lower-level Coursework: Students may count no more than two 0100-level (showcase) courses toward the Organizational Studies and Concentration Elective requirements (combined). SOC 0300, if taken, will count as part of this lower-level course allowance.

Upper-level Coursework: At least three of the five courses counted toward the Organizational Studies and Concentration Elective requirements (combined) must be at the 1000-level, and at least one must be a substantive seminar (1870/1871)

Interdisciplinary Coursework: Students may petition to count non-Sociology courses beyond the Organization-Relevant Elective list toward the Concentration Elective requirement. This will be allowed only when the proposed course makes sense given the interests of the student, and the Sociology Department offers no equivalent course.

The Senior Seminar (SOC 1950)

Sociology requires all concentrators to complete a thesis or capstone project in their senior year. The purpose of the thesis or capstone project is to allow students an opportunity to apply their sociological learning to a topic of their own interest. (Students in the Organizational Studies track are expected to focus their senior thesis or capstone project on an Organizational Studies topic.) To fulfill this requirement students enroll in SOC 1950 Senior Seminar. This seminar allows each cohort of concentrators to discuss their diverse interests and exposes participants to the wide range of applications of Sociological knowledge.

A senior thesis must ask an original research question, answer it with appropriate evidence, and place that work within relevant scholarly literature in sociology. The thesis is supervised by a faculty member who serves as the primary advisor, and one additional faculty member who serves as a reader. By the end of the sixth semester, students must submit a prospectus for the senior thesis to the Co-Director of Undergraduate Studies. At the start of the seventh semester, students should submit to the Co-Director of Undergraduate Studies a thesis 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. Students wishing to qualify for Honors must complete a senior thesis, rather than a capstone project (see below).

A capstone project is an independent, student-initiated project or experience developed during the Senior Seminar (SOC 1950) that connects in a meaningful way to learning in the concentration. A capstone project differs from a thesis in its scholarly content and form, and it depends only on the evaluation of the senior seminar instructor. Whereas the senior thesis follows the form of a conventional research paper, the capstone 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 for an off-campus organization. Projects are complemented by a poster presentation, literature review, and report that situates the central subject matter of the project within the context of sociological scholarship.

Independent Study

Students can use no more than one (1) Independent Study course (SOC 1970) to meet the concentration course requirements. An Independent Study course cannot serve as a substitute for any of the “required core” concentration requirements.

Honors

In order to be considered for honors, students must achieve a grade point average of at least 3.5 (A=4, B=3, C=2) on all courses counted toward concentration requirements. No more than one (1) of the courses counted toward concentration requirements may be taken with the "S/NC" option. Honors also requires a senior thesis (as described above), that demonstrates an understanding of empirical research and that receives a recommendation of Honors from the advisor and reader.

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).

SOC 0800 Introduction to Modern South Asia
or HNDI 1620 Resisting Empire: Gandhi and the Making of Modern South Asia

Two courses in the Humanities with a majority focus in South Asia, such as:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASS 0995</td>
<td>India’s Classical Performing Arts</td>
</tr>
<tr>
<td>CLASS 1140</td>
<td>Classical Philosophy of India</td>
</tr>
<tr>
<td>COST 0034</td>
<td>Dharma: A History of Classical Indian Civilization</td>
</tr>
<tr>
<td>RELS 1510</td>
<td>Islam in South Asia</td>
</tr>
</tbody>
</table>

Two courses in the Social Sciences with a majority focus on South Asia, such as:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<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>Title</th>
</tr>
</thead>
<tbody>
<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>
</tbody>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cabs.brown.edu).
In order to pursue Honors, students must submit the following materials to Brown (or RISD, in the case of Brown-RISD students) faculty community. Students may graduate with Honors in South Asian Studies by completing of courses for the concentration.

To be eligible for Honors, students will have earned an "A" in the majority the relevant department(s) and the Dean of the College.

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-thesis 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 top 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 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.

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
The program requires thirteen one-semester courses. The required courses are as follows:

**LEVEL I: Foundations in Mathematics - Calculus**

- MATH 0100 Introductory Calculus, Part I
- MATH 0180 Intermediate Calculus

**LEVEL I - Foundations in Mathematics - Linear Algebra**

- MATH 0520 Linear Algebra

**Computing**

- APMA 0160 Introduction to Scientific Computing
  or CSCI 0040 Introduction to Scientific Computing and Problem Solving

**Introduction to Statistical Thinking and Practice**

- PHP 1501 Essentials of Data Analysis

With the approval of the Director of the Statistics Concentration, one of the following courses may serve as replacement:

- SOC 1100 Introductory Statistics for Social Research
- ECON 1620 Introduction to Econometrics
- APMA 0650 Essential Statistics
- BIOL 0495 Statistical Analysis of Biological Data
- EDUC 1110 Introduction to Statistics for Education Research and Policy Analysis
- CLPS 0900 Statistical Methods

**LEVEL II - Core Courses in Theory and Data Analysis**

- 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**

- PHP 1510 Principles of Biostatistics and Data Analysis

OR

- PHP 2510 Principles of Biostatistics and Data Analysis

**LEVEL III: Advanced Courses in Statistical Methods**

- PHP 1560 Statistical Programming in R

OR

- PHP 2560 Statistical Programming with R

AND

- PHP 1511 Applied Regression Analysis

OR

- PHP 2511 Applied Regression Analysis

**Capstone Project**

- PHP 1970 Independent Study

**Electives in Social Science and Biostatistics (Students must choose 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
- 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
- ECON 1360 Health Economics
- ECON 1630 Mathematical Econometrics
- ECON 1640 Econometrics
- 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 a senior 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.
Theatre Arts and Performance Studies

The Department of Theatre Arts and Performance Studies (TAPS) is the intellectual and artistic center for the aesthetic, historical, literary, practical, and theoretical explorations of performance in global perspective – theatre, dance, speech, time-based art, and even performative “roles” in everyday life. The TAPS concentration offers three tracks with many points of overlap among them: Performance Studies, Theatre Arts, and Writing for Performance. Concentrators gain exposure to a broad spectrum of performance modes and methods – acting, directing, dance, and writing, and chose an avenue of focus among them. In addition, TAPS concentrators with an interest in socially engaged performance that tackles complex social issues may pursue the Engaged Scholars Program (https://www.brown.edu/academics/theatre-arts-performance-studies/undergraduate-program/engaged-scholars-program). Everyone graduates having studied craft, gained familiarity with history, and investigated the role of performance arts in culture.

Students who declared their concentration prior to fall 2019 can find their concentration requirements here: https://bulletin.brown.edu/archive/2018-19/the-college/concentrations/taps/

Theatre Arts Track

This concentration combines the study of dramatic literature, theatre history, performance theory, and studio work in the various theatre arts. All concentrators in Theatre Arts will gain practical experience through the study of acting and directing as well as in the technical production of plays, preparing students in the practical study of a cross-section of the vital aspects of theatre craft, including one class in either dance or speech. An essential aim of the concentration track is the engagement of students in performance procedures (acting, dancing, directing, choreography, design, playwriting, dramaturgy, etc.) in order to experience the inter-relationships among social contexts, dramatic texts and theatrical enactments. Along with practical study in craft, concentrators will graduate having studied theatre history and performance theory in global perspective. The study of theatre history provides a Theatre Arts concentrator with the necessary background to understand a variety of dramatic and theatrical forms. The study of performance theory enhances a student’s ability to ask fundamental questions about the role of theatre in social, political, cultural and cross-cultural arenas.

Students wishing to enroll as concentrators in Theatre Arts and Performance Studies and take the Theatre Arts track should see the undergraduate Theatre Arts track advisor, in order to discuss options that will best serve their interests.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0700</td>
<td>Introduction to Theatre, Dance and Performance</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 0220</td>
<td>Persuasive Communication</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 0230</td>
<td>Acting</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 0250</td>
<td>Introduction to Technical Theatre and Production</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1230</td>
<td>Global Theatre and Performance: Paleolithic to the Threshold of Modernity</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1240</td>
<td>Performance Historiography and Theatre History</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1250</td>
<td>Twentieth-Century Western Theatre and Performance</td>
<td>1</td>
</tr>
</tbody>
</table>

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 geographic and historical flexibility as not all cultures parse theatre from dance, nor, historically, genres of religious or political ritual from genres of entertainment, play, or game. At least one of the ten required classes must show geographic or cultural breadth, and be approved as such by the undergraduate concentration advisor. Participation in practical classes in modes of performance is also required.

Students wishing to enroll as concentrators in Theatre Arts and Performance Studies and take the Performance Studies track should see the undergraduate Performance Studies track advisor, in order to discuss options that will best serve their interests.

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>TAPS 1230</td>
<td>Global Theatre and Performance: Paleolithic to the Threshold of Modernity</td>
<td>3</td>
</tr>
<tr>
<td>TAPS 1240</td>
<td>Performance Historiography and Theatre History</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1250</td>
<td>Twentieth-Century Western Theatre and Performance</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1280Y</td>
<td>Issues in Performance Studies</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 3210</td>
<td>Dancing the African Diaspora</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 3250</td>
<td>Black Performance Theory</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 3280N</td>
<td>New Theories for a Baroque Stage</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 3180</td>
<td>Mise en Scene</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1425</td>
<td>Queer Performance</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1630</td>
<td>Performativity and the Body: Staging Gender, Staging Race</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1640</td>
<td>Theatre and Conquest in Greater Mexico: From Cortes to NAFTA</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1690</td>
<td>Performance, Art, and Everyday Life</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 2120</td>
<td>Revolution as a Work of Art</td>
<td>1</td>
</tr>
</tbody>
</table>

For additional information please contact: Roe Gutman, Box G-S-121-7; Telephone: 401-863-2682; Fax: 401-863-9182; e-mail: Roe Gutman (rgutman@stat.brown.edu)
Two full-credit courses based in performance craft in either Dance, Acting, Directing, Playwriting, Speech, Design, Literary Arts, Visual Arts, Music, or Africana Studies approved by the concentration advisor.

Two additional courses in the academic study of performance and performance culture(s) from either within TAPS or throughout the University in consultation with the advisor.

**Total Credits**: 10

### Dance Track

The Dance track of the Theatre Arts and Performance Studies concentration engages students in the study of dance, movement, and other forms of kinesthetic performance. Emphasizing dance technique, choreography/composition, and theories and histories of global forms of dance practice, concentrators in this track will study how multiple global dance forms articulate culture, negotiate difference, construct identity, and transmit collective historical traditions. Concentrators will receive instruction in composition and technique, and engage with dance, theatre, and performance production within the department to understand dance within a network of performance practices.

<table>
<thead>
<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0700</td>
<td>Introduction to Theatre, Dance and Performance</td>
</tr>
<tr>
<td>TAPS 0210</td>
<td>Dancing the African Diaspora</td>
</tr>
<tr>
<td>TAPS 1230</td>
<td>Global Theatre and Performance: Paleolithic to the Threshold of Modernity</td>
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<tr>
<td>TAPS 1240</td>
<td>Performance Historiography and Theatre History</td>
</tr>
<tr>
<td>TAPS 1250</td>
<td>Twentieth-Century Western Theatre and Performance</td>
</tr>
<tr>
<td>TAPS 1281W</td>
<td>Artists and Scientists as Partners</td>
</tr>
<tr>
<td>TAPS 1281Q</td>
<td>Introduction to Dance Studies</td>
</tr>
<tr>
<td>TAPS 1330</td>
<td>Dance History: The 20th Century</td>
</tr>
<tr>
<td>TAPS 1425</td>
<td>Queer Performance</td>
</tr>
<tr>
<td>TAPS 1630</td>
<td>Performativity and the Body: Staging Gender, Staging Race</td>
</tr>
<tr>
<td>MUSC 1971</td>
<td>Digital Media and Virtual Performance</td>
</tr>
</tbody>
</table>

Techniques of the Body - two courses selected in consultation with an advisor, such as the following: 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0310</td>
<td>Beginning Modern Dance</td>
</tr>
<tr>
<td>TAPS 0330</td>
<td>Mandé Dance, Music and Culture</td>
</tr>
<tr>
<td>TAPS 0930C</td>
<td>The Actor's Instrument: Stage Movement for Actors and Directors</td>
</tr>
<tr>
<td>TAPS 1000</td>
<td>Intermediate Dance</td>
</tr>
<tr>
<td>TAPS 1310</td>
<td>Advanced Modern Dance</td>
</tr>
<tr>
<td>TAPS 1340</td>
<td>Dance Styles</td>
</tr>
<tr>
<td>TAPS 1341</td>
<td>Introduction to Ballet</td>
</tr>
</tbody>
</table>

Directing/Compositional Strategies - two courses selected in consultation with an advisor from courses such as the following: 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0320</td>
<td>Dance Composition</td>
</tr>
<tr>
<td>TAPS 0360</td>
<td>Viewpoints Technique: The Moving Body in Relation to Time, Space, and Ensemble</td>
</tr>
<tr>
<td>TAPS 1281E</td>
<td>Directing Theory and Practice</td>
</tr>
<tr>
<td>TAPS 1320</td>
<td>Choreography</td>
</tr>
<tr>
<td>TAPS 1350</td>
<td>Dance Performance and Repertory</td>
</tr>
<tr>
<td>TAPS 1360</td>
<td>and Dance Performance and Repertory</td>
</tr>
<tr>
<td>TAPS 1370</td>
<td>New Works/World Traditions</td>
</tr>
</tbody>
</table>

Design or Production - one course selected in consultation with an advisor from the following: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 0250</td>
<td>Introduction to Technical Theatre and Production</td>
</tr>
</tbody>
</table>

**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

Each student will complete a capstone project by the second semester of the senior year. The purpose of this capstone is to synthesize the core tenets of theory and practice in our concentration learning objectives and to reflect on that synthesis. The following projects, completed in semesters 6, 7, and 8, qualify as a capstone:

- A senior slot production and a 5-page capstone reflection
- An honors thesis
- An engaged scholarship project and a 5-page capstone reflection
- Extension of an existing curricular, co-curricular, or extra-curricular project from the junior year or first semester senior year and a 5-page capstone reflection
- Revision or expansion of an existing final paper from any prior class and a 5-page capstone reflection
- Major participation in a non-departmental campus production, performance or academic event (i.e., student produced work at PW, etc., an event at the Granoff, etc.) and a 5-page capstone reflection
- The 5-page reflection will contain the following:
  - a brief description of the project completed, including details about who, when, and where the project took place (i.e., which class the paper was originally written for, where the show was produced, how you revised the paper, directed the production, etc.)
  - an examination of how your research methods were gained and how you will incorporate into your artistry.
  - The DUS will assess the paper, approving it if all of the criteria above are met. While this is not a formal research paper, the reflection will be assessed for clarity, honesty and depth of self-reflection, and reflection on your experience of the TAPS curriculum.

### Honors

The standard pattern above, plus an honors thesis course taken in Semester VII (TAPS 1990), 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

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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 0220</td>
<td>City Politics</td>
</tr>
<tr>
<td>URBN 0210</td>
<td>The City: An Introduction to Urban Studies</td>
</tr>
<tr>
<td>URBN 0230</td>
<td>Urban Life in Providence: An Introduction</td>
</tr>
</tbody>
</table>

**Research Methods (choose one):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0650</td>
<td>Essential Statistics</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
<tr>
<td>APMA 1660</td>
<td>Statistical Inference II</td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Statistical Methods</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
</tr>
<tr>
<td>EDUC 1110</td>
<td>Introductory Statistics for Education Research and Policy Analysis</td>
</tr>
<tr>
<td>PHP 1501</td>
<td>Essentials of Data Analysis</td>
</tr>
<tr>
<td>POLS 1600</td>
<td>Political Research Methods</td>
</tr>
<tr>
<td>SOC 1020</td>
<td>Methods of Social Research</td>
</tr>
<tr>
<td>SOC 1100</td>
<td>Introductory Statistics for Social Research</td>
</tr>
</tbody>
</table>

**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):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 1612D</td>
<td>Cities of Sound: Place and History in American Pop Music</td>
</tr>
<tr>
<td>ANTH 1201</td>
<td>Introduction to Geographic Information Systems and Spatial Analysis</td>
</tr>
<tr>
<td>ANTH 1236</td>
<td>Urban Life: Anthropology in and of the City</td>
</tr>
<tr>
<td>ANTH 1255</td>
<td>Anthropology of Disasters</td>
</tr>
<tr>
<td>ECON 1410</td>
<td>Urban Economics</td>
</tr>
<tr>
<td>ENGL 0100N</td>
<td>City Novels</td>
</tr>
<tr>
<td>ENGL 0700R</td>
<td>Modernist Cities</td>
</tr>
<tr>
<td>ENGL 1711D</td>
<td>Reading New York</td>
</tr>
<tr>
<td>ENVS 1400</td>
<td>Sustainable Design in the Built Environment</td>
</tr>
<tr>
<td>ENVS 1580</td>
<td>Environmental Stewardship and Resilience in Urban Systems</td>
</tr>
<tr>
<td>GEOL 1320</td>
<td>Introduction to Geographic Information Systems for Environmental Applications</td>
</tr>
<tr>
<td>HIAA 1000</td>
<td>Introduction to Architectural Design Studio</td>
</tr>
<tr>
<td>HIAA 0710</td>
<td>The Other History of Modern Architecture</td>
</tr>
<tr>
<td>HIAA 0770</td>
<td>Architecture and Urbanism of Africa</td>
</tr>
<tr>
<td>HIAA 0850</td>
<td>Modern Architecture</td>
</tr>
<tr>
<td>HIAA 0860</td>
<td>Contemporary Architecture</td>
</tr>
<tr>
<td>HIAA 0861</td>
<td>City and Cinema</td>
</tr>
<tr>
<td>HIST 1550</td>
<td>American Urban History, 1600-1870</td>
</tr>
<tr>
<td>HIST 1551</td>
<td>American Urban History, 1870-1965 (HIST 1550: American Urban History to 1870)</td>
</tr>
<tr>
<td>POLS 0220</td>
<td>City Politics</td>
</tr>
<tr>
<td>POLS 1310</td>
<td>African American Politics</td>
</tr>
<tr>
<td>SOC 1330</td>
<td>Remaking the City</td>
</tr>
<tr>
<td>SOC 1340</td>
<td>Principles and Methods of Geographic Information Systems</td>
</tr>
<tr>
<td>SOC 1640</td>
<td>Social Exclusion</td>
</tr>
<tr>
<td>URBN 0074</td>
<td>Nineteenth-Century Architecture</td>
</tr>
<tr>
<td>URBN 1000</td>
<td>Fieldwork in the Urban Community</td>
</tr>
<tr>
<td>URBN 1200</td>
<td>The United States Metropolis, 1945-2000</td>
</tr>
<tr>
<td>URBN 1250</td>
<td>The Political Foundations of the City</td>
</tr>
<tr>
<td>URBN 1260</td>
<td>Housing in America</td>
</tr>
<tr>
<td>URBN 1270</td>
<td>Urban Politics and Urban Public Policy</td>
</tr>
</tbody>
</table>

**Seminar courses (choose three):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 1903E</td>
<td>City of the American Century: The Culture and Politics of Urbanism in Postwar New York City</td>
</tr>
<tr>
<td>EDUC 1650</td>
<td>Policy Implementation in Education</td>
</tr>
<tr>
<td>HIAA 1850H</td>
<td>Berlin: Architecture, Politics and Memory</td>
</tr>
<tr>
<td>HIAA 1910A</td>
<td>Providence Architecture</td>
</tr>
<tr>
<td>SOC 0310</td>
<td>Theory and Practice of Engaged Scholarship (ESP Seminar)</td>
</tr>
<tr>
<td>URBN 1870A</td>
<td>American Culture and the City</td>
</tr>
<tr>
<td>URBN 1870D</td>
<td>Downtown Development</td>
</tr>
<tr>
<td>URBN 1870G</td>
<td>Ancient Cities: From the Origins Through Late Antiquity</td>
</tr>
<tr>
<td>URBN 1870I</td>
<td>The Changing American City</td>
</tr>
<tr>
<td>URBN 1870J</td>
<td>The Politics of Community Organizing</td>
</tr>
<tr>
<td>URBN 1870K</td>
<td>Jerusalem Since 1850: Religion, Politics, Cultural Heritage</td>
</tr>
<tr>
<td>URBN 1870M</td>
<td>Urban Regimes in the American Republic</td>
</tr>
<tr>
<td>URBN 1870N</td>
<td>The Cultural and Social Life of the Built Environment</td>
</tr>
<tr>
<td>URBN 1870Q</td>
<td>Cities in Mind: Modern Urban Thought and Theory</td>
</tr>
<tr>
<td>URBN 1870S</td>
<td>The City, the River, and the Sea: Social and Environmental Change at the Water's Edge</td>
</tr>
<tr>
<td>URBN 1870T</td>
<td>Transportation: An Urban Planning Perspective</td>
</tr>
<tr>
<td>URBN 1870V</td>
<td>City Senses: Urbanism Beyond Visual Spectacle</td>
</tr>
<tr>
<td>URBN 1870Z</td>
<td>Housing Justice</td>
</tr>
<tr>
<td>URBN 1871B</td>
<td>Berlin: Global Metropolis (1945-2020)</td>
</tr>
<tr>
<td>URBN 1941</td>
<td>How to Shape a City: An Introduction to Real Estate Development</td>
</tr>
</tbody>
</table>

**Complementary Curriculum (Total of 2 courses required):**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
</table>

For up-to-date course information please visit Courses@Brown.edu (https://cab.brown.edu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title of Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1980T</td>
<td>Modernity, Jews, and Urban Identities in Central Europe (JUDS 1718)</td>
</tr>
<tr>
<td>ITAL 1580</td>
<td>Word, Image and Power in Early Modern Italy</td>
</tr>
<tr>
<td>JAPN 0910B</td>
<td>Japanese Cities: Tokyo and Kyoto</td>
</tr>
<tr>
<td>JUDS 1718</td>
<td>Modernity, Jews, and Urban Identities in Central Europe</td>
</tr>
<tr>
<td>PLCY 1200</td>
<td>Program Evaluation</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>PLCY 1701W</td>
<td>Race, Gentrification, and the Policing of Urban Space</td>
</tr>
<tr>
<td>PLCY 1910</td>
<td>Social Entrepreneurship</td>
</tr>
<tr>
<td>POLS 1760</td>
<td>Infrastructure Policy</td>
</tr>
<tr>
<td>POLS 1824D</td>
<td>Power and Prosperity in Urban America</td>
</tr>
<tr>
<td>RUSS 1440</td>
<td>Imagining Moscow: Utopia and Urban Spaces in 20th-Century Russian Culture</td>
</tr>
<tr>
<td>STS 1701Q</td>
<td>The Fate of the Coast</td>
</tr>
<tr>
<td>SOC 0130</td>
<td>American Heritage: Democracy, Inequality, and Public Policy</td>
</tr>
<tr>
<td>SOC 1270</td>
<td>Race, Class, and Ethnicity in the Modern World</td>
</tr>
<tr>
<td>SOC 1540</td>
<td>Human Needs and Social Services</td>
</tr>
<tr>
<td>SOC 1540</td>
<td>Human Needs and Social Services</td>
</tr>
</tbody>
</table>

**Total Credits:** 10

1. There are also other statistics courses offered by other departments (e.g., Applied Mathematics, Cognitive Sciences, and Psychology). On occasion, an alternative research skills course may be approved for a specific concentration.

2. The courses provide opportunities to undertake research or fieldwork projects and all qualify as "capstone" experiences.

3. No more than two may be used to satisfy the requirements of this concentration. The RISD course is identified in the student's record at Brown by a RISD course code.

**Off-Campus Courses:** Some courses taken outside Brown (e.g., in study abroad programs) may be used for credit towards the concentration if the material covered directly corresponds to that taught in Brown courses, or is relevant to the complementary curriculum. Such courses will be approved each semester by the concentration advisor.

**Honors**

Candidates for Honors must have above average grades and shall apply for this distinction in writing to the Director of the Program by the middle of the second semester of their junior year. They shall include a cover letter with a brief statement of the intended research proposal as well as the name of the member of the Urban Studies faculty who would serve as their advisor and with whom they must work closely. Twelve courses are required for Honors concentrator, two in addition to the ten courses required for a standard program. 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: URBN 1971 Senior Honors Thesis I in Urban Studies(SINC) and URBN 1972 Senior Honors Thesis II in Urban Studies (grade). The candidate's final thesis must be of outstanding quality, in order to qualify for honors.

**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 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 (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></td>
</tr>
<tr>
<td>VISA 0140</td>
<td>Photography Foundation</td>
<td></td>
</tr>
<tr>
<td>VISA 0150</td>
<td>Digital 2D Foundation</td>
<td></td>
</tr>
<tr>
<td>VISA 0160</td>
<td>Painting Foundation</td>
<td></td>
</tr>
</tbody>
</table>

5 additional upper level studio courses are required. A minimum of three elective studio courses must be taken in the Brown Visual Art Department.

**3 HIAA courses are required:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIAA 0010</td>
<td>A Global History of Art and Architecture</td>
<td>1</td>
</tr>
<tr>
<td>HIAA 0801</td>
<td>Art After ’68</td>
<td>1</td>
</tr>
<tr>
<td>or HIAA 0810</td>
<td>20th Century Sculpture</td>
<td></td>
</tr>
<tr>
<td>or HIAA 0870</td>
<td>20th Century British Art: Edwardian to Contemporary</td>
<td></td>
</tr>
</tbody>
</table>

Senior Thesis Exhibition: which does not carry academic credit, is required for graduation (usually presented during the seventh or eighth semester).

Total Credits: 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.

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