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.
# Table of Contents

Academic Calendar .................................................................................................................. 3
General Regulations .................................................................................................................. 5
Curricular Programs ................................................................................................................. 7
Course Descriptions ................................................................................................................ 17
   Africana Studies .................................................................................................................... 17
   American Studies ................................................................................................................ 19
   Anthropology ...................................................................................................................... 22
   Applied Mathematics ........................................................................................................... 26
   Archaeology and the Ancient World ...................................................................................... 29
Biology and Medicine ............................................................................................................... 31
   Biology ................................................................................................................................ 31
   BioMed-Neuroscience ......................................................................................................... 40
   Program in Liberal Medical Education ............................................................................... 41
Business, Entrepreneurship and Organizations ........................................................................ 41
Chemistry ................................................................................................................................ 42
Classics .................................................................................................................................... 44
   Classics ............................................................................................................................... 44
   Greek .................................................................................................................................. 46
   Latin .................................................................................................................................... 47
   Modern Greek ...................................................................................................................... 48
   Sanskrit ............................................................................................................................... 48
Cognitive, Linguistic and Psychological Sciences ....................................................................... 49
   Cognitive, Linguistic and Psychological Sciences .............................................................. 49
   Linguistics ........................................................................................................................... 53
Comparative Literature .............................................................................................................. 55
Computer Science ..................................................................................................................... 59
Development Studies ................................................................................................................ 63
Early Cultures ............................................................................................................................ 64
East Asian Studies ...................................................................................................................... 64
   Chinese ............................................................................................................................. 64
   East Asian Studies .............................................................................................................. 65
   Japanese .............................................................................................................................. 66
   Korean ................................................................................................................................. 67
Economics .................................................................................................................................. 68
Education ................................................................................................................................... 73
Egyptology and Ancient Western Asian Studies ..................................................................... 76
   Ancient Western Asian Studies .......................................................................................... 76
   Egyptology .......................................................................................................................... 77
Engineering .............................................................................................................................. 78
English ....................................................................................................................................... 85
Center for Environmental Studies ........................................................................................... 93
Ethnic Studies ............................................................................................................................ 95
French Studies ........................................................................................................................ 96
Gender and Sexuality Studies .................................................................................................. 98
Geological Sciences ................................................................................................................. 100
German Studies ....................................................................................................................... 102
   German Studies ................................................................................................................ 102
   Swedish .............................................................................................................................. 104
Hispanic Studies ....................................................................................................................... 104
History ...................................................................................................................................... 108
History of Art and Architecture .............................................................................................. 117
Humanities .............................................................................................................................. 120
International Relations .......................................................................................................... 120
Italian Studies .......................................................................................................................... 121
Judaic Studies .......................................................................................................................... 122
Center for Language Studies ................................................................................................ 124
   American Sign Language ................................................................................................... 124
   Arabic ................................................................................................................................. 125
   Catalan ................................................................................................................................. 125
   English for Internationals .................................................................................................. 126
   Haitian-Creole ................................................................................................................... 126
   Hindi-Urdu ........................................................................................................................ 126
   Persian ............................................................................................................................... 126
   Turkish ............................................................................................................................... 127
   Latin American Studies ................................................................................................. 127
   Literary Arts ...................................................................................................................... 127
   Mathematics ..................................................................................................................... 130
   Medieval Studies ............................................................................................................. 133
   Middle East Studies ........................................................................................................... 133
   Modern Culture and Media ............................................................................................... 135
   Music ................................................................................................................................. 138
   Philosophy ......................................................................................................................... 142
   Physics ............................................................................................................................... 145
   Political Science ............................................................................................................... 147
   Portuguese and Brazilian Studies ..................................................................................... 153
   Public Health ..................................................................................................................... 155
   Public Policy and American Institutions ......................................................................... 162
   Religious Studies .............................................................................................................. 164
   Renaissance and Early Modern Studies ......................................................................... 167
   Science and Society ......................................................................................................... 168
   Slavic Languages .............................................................................................................. 169
   Czech ................................................................................................................................. 169
   Polish ................................................................................................................................. 169
   Russian ............................................................................................................................... 169
   Slavic ................................................................................................................................. 171
   Sociology ............................................................................................................................ 172
   Theatre Arts and Performance Studies ............................................................................. 176
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>University Courses</td>
<td>181</td>
</tr>
<tr>
<td>Urban Studies</td>
<td>182</td>
</tr>
<tr>
<td>Visual Art</td>
<td>183</td>
</tr>
<tr>
<td>Undergraduate Concentrations</td>
<td>186</td>
</tr>
<tr>
<td>Africana Studies</td>
<td>186</td>
</tr>
<tr>
<td>American Studies</td>
<td>186</td>
</tr>
<tr>
<td>Anthropology</td>
<td>187</td>
</tr>
<tr>
<td>Applied Mathematics</td>
<td>187</td>
</tr>
<tr>
<td>Applied Mathematics-Biology</td>
<td>188</td>
</tr>
<tr>
<td>Applied Mathematics-Computer Science</td>
<td>189</td>
</tr>
<tr>
<td>Applied Mathematics-Economics</td>
<td>189</td>
</tr>
<tr>
<td>Archaeology and the Ancient World</td>
<td>195</td>
</tr>
<tr>
<td>Astronomy</td>
<td>196</td>
</tr>
<tr>
<td>Biochemistry and Molecular Biology</td>
<td>196</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>197</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>199</td>
</tr>
<tr>
<td>Biophysics</td>
<td>200</td>
</tr>
<tr>
<td>Business, Entrepreneurship and Organizations</td>
<td>200</td>
</tr>
<tr>
<td>Chemical Physics</td>
<td>202</td>
</tr>
<tr>
<td>Chemistry</td>
<td>202</td>
</tr>
<tr>
<td>Classics</td>
<td>204</td>
</tr>
<tr>
<td>Cognitive Neuroscience</td>
<td>205</td>
</tr>
<tr>
<td>Cognitive Science</td>
<td>206</td>
</tr>
<tr>
<td>Community Health</td>
<td>209</td>
</tr>
<tr>
<td>Comparative Literature</td>
<td>210</td>
</tr>
<tr>
<td>Computational Biology</td>
<td>211</td>
</tr>
<tr>
<td>Computer Science</td>
<td>212</td>
</tr>
<tr>
<td>Computer Science-Economics</td>
<td>213</td>
</tr>
<tr>
<td>Development Studies</td>
<td>215</td>
</tr>
<tr>
<td>Early Cultures</td>
<td>216</td>
</tr>
<tr>
<td>East Asian Studies</td>
<td>216</td>
</tr>
<tr>
<td>Economics</td>
<td>218</td>
</tr>
<tr>
<td>Education Studies</td>
<td>219</td>
</tr>
<tr>
<td>Egyptology and Assyriology</td>
<td>220</td>
</tr>
<tr>
<td>Engineering</td>
<td>220</td>
</tr>
<tr>
<td>Engineering and Physics</td>
<td>223</td>
</tr>
<tr>
<td>English</td>
<td>224</td>
</tr>
<tr>
<td>Environmental Studies</td>
<td>226</td>
</tr>
<tr>
<td>Ethnic Studies</td>
<td>228</td>
</tr>
<tr>
<td>French Studies</td>
<td>228</td>
</tr>
<tr>
<td>French and Francophone Studies</td>
<td>229</td>
</tr>
<tr>
<td>Gender and Sexuality Studies</td>
<td>230</td>
</tr>
<tr>
<td>Geological Sciences</td>
<td>230</td>
</tr>
<tr>
<td>Geology-Biology</td>
<td>231</td>
</tr>
<tr>
<td>Geology-Chemistry</td>
<td>232</td>
</tr>
<tr>
<td>Geology-Physics/Chemistry</td>
<td>233</td>
</tr>
<tr>
<td>German Studies</td>
<td>234</td>
</tr>
<tr>
<td>Health &amp; Human Biology</td>
<td>234</td>
</tr>
<tr>
<td>Hispanic Literatures and Culture</td>
<td>235</td>
</tr>
<tr>
<td>Hispanic Studies</td>
<td>236</td>
</tr>
<tr>
<td>History</td>
<td>236</td>
</tr>
<tr>
<td>History of Art and Architecture</td>
<td>237</td>
</tr>
<tr>
<td>Independent Concentration</td>
<td>239</td>
</tr>
<tr>
<td>International Relations</td>
<td>241</td>
</tr>
<tr>
<td>Italian Studies</td>
<td>242</td>
</tr>
<tr>
<td>Judaic Studies</td>
<td>242</td>
</tr>
<tr>
<td>Latin American and Caribbean Studies</td>
<td>244</td>
</tr>
<tr>
<td>Linguistics</td>
<td>245</td>
</tr>
<tr>
<td>Literary Arts</td>
<td>246</td>
</tr>
<tr>
<td>Marine Biology</td>
<td>246</td>
</tr>
<tr>
<td>Mathematics</td>
<td>247</td>
</tr>
<tr>
<td>Mathematics-Computer Science</td>
<td>247</td>
</tr>
<tr>
<td>Mathematics-Computer Science</td>
<td>247</td>
</tr>
<tr>
<td>Medieval Cultures</td>
<td>248</td>
</tr>
<tr>
<td>Middle East Studies</td>
<td>250</td>
</tr>
<tr>
<td>Modern Culture and Media</td>
<td>250</td>
</tr>
<tr>
<td>Music</td>
<td>251</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>252</td>
</tr>
<tr>
<td>Philosophy</td>
<td>253</td>
</tr>
<tr>
<td>Physics</td>
<td>254</td>
</tr>
<tr>
<td>Physics and Philosophy</td>
<td>256</td>
</tr>
<tr>
<td>Political Science</td>
<td>258</td>
</tr>
<tr>
<td>Portuguese and Brazilian Studies</td>
<td>258</td>
</tr>
<tr>
<td>Psychology</td>
<td>259</td>
</tr>
<tr>
<td>Public Health</td>
<td>260</td>
</tr>
<tr>
<td>Public Policy and American Institutions</td>
<td>262</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>262</td>
</tr>
<tr>
<td>Renaissance and Early Modern Studies</td>
<td>262</td>
</tr>
<tr>
<td>Science and Society</td>
<td>263</td>
</tr>
<tr>
<td>Slavic Studies</td>
<td>264</td>
</tr>
<tr>
<td>Social Analysis and Research</td>
<td>264</td>
</tr>
<tr>
<td>Sociology</td>
<td>265</td>
</tr>
<tr>
<td>South Asian Studies</td>
<td>266</td>
</tr>
<tr>
<td>Theatre Arts and Performance Studies</td>
<td>268</td>
</tr>
<tr>
<td>Urban Studies</td>
<td>270</td>
</tr>
<tr>
<td>Visual Art</td>
<td>272</td>
</tr>
</tbody>
</table>
## Academic Calendar

### Summer 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1 - 10, 2014</td>
<td>Tues.-Thurs.</td>
<td>Pre-registration for Summer courses.</td>
</tr>
<tr>
<td>April 11 - 22, 2014</td>
<td>Fri.-Tues.</td>
<td>Summer registration closed for Fall registration (online via Banner for continuing students).</td>
</tr>
<tr>
<td>April 23 - June 25, 2014</td>
<td>Wed.-Wed.</td>
<td>Late registration period for Summer courses.</td>
</tr>
<tr>
<td>June 23, 2014</td>
<td>Mon.</td>
<td>Summer Session begins.</td>
</tr>
<tr>
<td>June 25, 2014</td>
<td>Wed.</td>
<td>Last day to change courses. (All students MUST be in their registered courses by Thursday, June 26.)</td>
</tr>
<tr>
<td>July 8, 2014</td>
<td>Tues.</td>
<td>Last day to change grade options.</td>
</tr>
<tr>
<td>Aug 5, 2014</td>
<td>Tues.</td>
<td>Last day to drop a course.</td>
</tr>
<tr>
<td>Aug 8, 2014</td>
<td>Fri.</td>
<td>Summer Session ends.</td>
</tr>
<tr>
<td>Aug 9, 2014</td>
<td>Sat.</td>
<td>Residence halls close.</td>
</tr>
<tr>
<td>Aug 31, 2014</td>
<td>Sun.</td>
<td>Last day to initiate a Course Performance Report via ASK.</td>
</tr>
</tbody>
</table>

### Fall 2014

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 1, 2014</td>
<td>Fri.</td>
<td>Last day for payment of charges.</td>
</tr>
<tr>
<td>Aug. 29, 2014</td>
<td>Fri.</td>
<td>Beginning of Graduate School Orientation</td>
</tr>
<tr>
<td>Aug. 30, 2014</td>
<td>Sat.</td>
<td>Beginning of College Orientation</td>
</tr>
<tr>
<td>Sept. 2, 2014</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>
</tr>
<tr>
<td>Sept. 3, 2014</td>
<td>Wed.</td>
<td>Classes of the first semester begin. Web registration begins at 8:00 am.</td>
</tr>
<tr>
<td>Sept. 10, 2014</td>
<td>Wed.</td>
<td>First day of RISD Fall Session</td>
</tr>
<tr>
<td>Sept. 16, 2014</td>
<td>Tues.</td>
<td>Last day to add a course without a fee. (5:00 p.m. deadline) The web will be taken down for approximately one hour. Once relaunched, all course adds require Instructor override and will be charged late fee of $15 per course.</td>
</tr>
<tr>
<td>Sept. 17, 2014</td>
<td>Wed.</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. 30, 2014</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>
</tr>
<tr>
<td>Oct. 14, 2014</td>
<td>Tues.</td>
<td>Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a No Concentration hold placed against their Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>Oct. 15, 2014</td>
<td>Wed.</td>
<td>Deadline for students currently on leave to apply for readmission for Semester II.</td>
</tr>
</tbody>
</table>

### Spring 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 1, 2015</td>
<td>Thurs.</td>
<td>Last day for payment of charges.</td>
</tr>
<tr>
<td>Jan. 20, 2015</td>
<td>Tues.</td>
<td>Registration of new students for the second semester (4:00 pm to midnight).</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 21, 2015 Wed.</td>
<td>Classes of the second semester begin. Web registration begins at 8:00 am. Theses of candidates for Masters and Ph.D. degrees in May (on Semester I registration fee) are due.</td>
</tr>
<tr>
<td>Feb. 3, 2015 Tues.</td>
<td>Last day to add a course without a fee. (5:00 p.m. deadline) The web will be taken down for approximately one hour. Once relaunched, all course adds require Instructor override and will be charged late fee of $15 per course.</td>
</tr>
<tr>
<td>Feb. 18, 2015 Wed.</td>
<td>Classes resume. Last day to add a course (includes late fee), change from audit to credit, or change a grade option declaration (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>March 6, 2015 Fri.</td>
<td>Mid-semester deadline. Last day to change from credit to audit in a course (5:00 p.m. deadline).</td>
</tr>
<tr>
<td>Mar. 30 - Apr. 10, 2015 Mon. - Fri.</td>
<td>Advising period for fall pre-registration. Students in their first through third semesters will need to procure their advising PIN from their advisor in order to register.</td>
</tr>
<tr>
<td>April 1, 2015 Wed.</td>
<td>Deadline for students currently on leave to apply for readmission for Semester I. Date by which sophomores entering their 5th semester must file their concentration declaration forms via ASK to avoid having a No Concentration hold placed against their Banner registration. (5:00 pm deadline).</td>
</tr>
<tr>
<td>April 3, 2015 Fri.</td>
<td>Deadline for submission of proposals for undergraduate group study projects (GISPs) for Semester I.</td>
</tr>
<tr>
<td>April 9, 2015 Thurs.</td>
<td>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).</td>
</tr>
<tr>
<td>April 14 - 21, 2015 Tues. - Tues.</td>
<td>Registration for Semester I, 2015-16. (Note: No student will be permitted to register for his or her fifth semester unless an approved declaration of concentration has been filed.)</td>
</tr>
<tr>
<td>April 21, 2015 Tues.</td>
<td>End of the pre-registration period. Last day for advisors to approve second concentrations in ASK for students in their 7th semester declaring a second/additional concentration. (5:00 pm deadline) *Any declarations not 'advisor approved' and recorded in Banner by the Office of the Registrar by the 5:00 pm deadline will not be honored.</td>
</tr>
</tbody>
</table>
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://brown.edu/about/administration/registrar/degree-guidelines-0/graduate-school) website.

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

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

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

For the full text on the Academic Regulations and Instructions for Registration, see the Registrar's Office web site at:
http://www.brown.edu/about/administration/registrar/course-enrollment/registration

For a tutorial on registration, see:
https://wiki.brown.edu/confluence/display/CISDOC/Screncasts

To access the most up-to-date course information including credit bearing summer session offerings (*The course information in the PDF versions of the University Bulletin and Course Announcement Bulletin is current as of September 2014*), see:
http://selfservice.brown.edu/menu and select 'Brown Course Search'

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.

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

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

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

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

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

Enrollment Without Academic Credit

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

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

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

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

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

Attendance, Grading, Examinations

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

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

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

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

Grading System
At the end of each semester final grades are given in semester courses. In all courses, except those designated by the instructor as Mandatory Satisfactory/No Credit, a student may, in consultation with the advisor, elect to be graded on a basis of either Satisfactory/No Credit or A, B, C/
No Credit. A student must for every course taken indicate by the end of the fourth week of the semester which basis for grading is elected. Any student regularly enrolled in a course, no matter whether for A, B, C/No Credit or for Satisfactory/No Credit, must 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 date will be assigned a grade of NC unless the instructor indicates that sufficient work has been completed to justify course credit by submitting, as appropriate, a grade change from INC to A, B, C, or S. A grade of NC assigned in accordance with these procedures may be changed subsequently, but no later than one calendar year after the end of the semester in which the course was taken.

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

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

Year Courses: A year course is one in which both halves must be passed in order to get credit for the entire year. The grade at the end of the first semester is normally a temporary one. Neither semester may be elected independent of the other 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 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 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/Nor Program Oversight Committee or Graduate Council as being able to be repeated for credit, once course credit has been earned with an initial passing grade A, B, or S, 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 credits. This course then has the same standing as a 1000-level course and an X is noted on the transcript. This provision for extra work does not apply to courses of the level of 1–999 taken for graduate credit by students in MD program. Course Performance Reports: Students, regardless of grade option selected, may request the instructor to complete the student's Course Performance Report. This request should be by the deadline specified in the Academic Calendar for the semester in which the course is being completed. The instructor may decline to complete such a form if it is believed he or she has inadequate information to do so. Particular consideration should be given to requests from students for whom the course is part of their concentration program or the course is taken on the S/NC basis. Copies of Course Performance Reports will be made available to: (1) the student, (2) the dean's office, and (3) the student's concentration advisor. While not part of the official record, Course Performance Reports may be sent out of the University at the student's request along with an official Brown University academic transcript. In such cases, the student must provide copies of such CPRs to be enclosed at the time the transcript is initially requested.

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

Transcripts: Requests for transcripts must be made either in writing by completing a Transcript Order Form, or electronically. For further information please visit the Office of the Registrar’s website (http://www.brown.edu/about/administration/registrar). Transcripts will be issued only if all financial obligations to the University have been met. An official transcript consists of a copy of the permanent record listing courses passed and grades received. A statement is added to all transcripts explaining the grading system and indicating that the student may elect to include other material with the official transcript. The student should choose this material in consultation with his or her advisor. The University will mail this material in one envelope along with the official transcript.

Examinations
A final, written examination (at the end of each semester) shall be given in each course numbered under 2000 unless the instructor of a particular course decides to use some other mode of final evaluation. If the written examination is not to be used, the mode of final examination which is to be used shall be made known to the students in the course no later
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 2014-2015 is as follows:

Semester I, 2014-2015

<table>
<thead>
<tr>
<th>Date</th>
<th>9 am Group</th>
<th>2 pm Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 12 F</td>
<td>18</td>
<td>6</td>
</tr>
<tr>
<td>Dec. 13 Sat</td>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>Dec. 14 Su</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>Dec. 15 M</td>
<td>15</td>
<td>8</td>
</tr>
<tr>
<td>Dec. 16 T</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Dec. 17 W</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Dec. 18 Th</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Dec. 19 F</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Dec. 20 Sat</td>
<td>3</td>
<td>13</td>
</tr>
</tbody>
</table>

Semester II, 2014-2015

<table>
<thead>
<tr>
<th>Date</th>
<th>9 am Group</th>
<th>2 pm Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 6 W</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>May 7 Th</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>May 8 F</td>
<td>18</td>
<td>8</td>
</tr>
<tr>
<td>May 9 Sat</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>May 11 M</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>May 12 T</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>May 13 W</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>May 14 Th</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>May 15 F</td>
<td>16</td>
<td>3</td>
</tr>
</tbody>
</table>

Exam Excuses: The Office of the Dean of the College is solely responsible for determining whether a student’s absence from a final examination is excused. To ensure equitable treatment of all students, students are excused from exams only for family or medical emergencies or for religious reasons. Please note that students’ travel plans are never an excuse for missing a final exam. Faculty wishing to grant a student an exam excuse may contact the appropriate academic deans authorized to grant exam excuses. In emergency situations, students who are unable to contact their professors must contact the Office of the Dean of the College, which will determine whether or not an exam excuse is warranted. Course instructors are notified of exam excuses granted by the Dean of the College Office.

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

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

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

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

Student Code of Conduct

Academic Code Violations

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

Nonacademic Discipline

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

Curricular Programs

Diverse Perspectives in Liberal Learning

Brown’s open curriculum challenges students to open their perspective on the world by embracing new experiences, new ways of thinking, and new people. One way students can address this expectation is through challenging coursework. Diverse Perspectives in Liberal Learning courses offer students the means not only to understand the complex dynamics of social inequity, exclusion, and difference but also to do something with what they learn.

Through content, methodology, or pedagogy, DPLL courses seek to:

• Expose and critique the diverse historical and cultural forces that shape the construction of knowledge in all disciplines;

• Teach the arts of critical reflection: questioning thoughtfully, listening openly, and speaking cogently about differing points of view;

• Develop responsible citizens by examining the ways that power and privilege affect human lives and providing pathways to meaningful change.

Some DPLL courses may, through their content, focus on questions of race, nationality, ethnicity, sexuality, religion, gender, age, disability, or socio-economic status. Others may employ creative methods to investigate how knowledge is constructed and received in different contexts. Still others may feature community-based activities, encouraging students to become agents of change both locally and globally.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
A complete list of each semester’s DPLL courses may be viewed in the Brown Course Search by choosing “Diverse Perspectives in LL” 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 the Brown Course Search by choosing “First-Year Seminars” in the Curricular Programs field. Registration for first-year seminars takes place during the summer prior to students’ matriculation to Brown. Depending on availability, first-year students may also add seminars to their course schedules during pre-registration and shopping periods.

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

A complete list of each semester’s LILE courses may be viewed in the Brown Course Search by choosing “Liberal Learning” in the Curricular Programs field.

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

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

Diverse Perspectives in Liberal Learning
Fall 2014

Africana Studies
AFRI 0090 S01 16146 An Intro to Africana Studies Francoise N. Hamlin
AFRI 0210 S01 16148 Afro Latin Americans Anani Dzidzienyo
AFRI 1150 S01 16147 Afro-Caribbean Philosophy Paget Henry
AFRI 1210 S01 16150 Afro-Brazilians + Braziln Polity Anani Dzidzienyo
AFRI 1620 S01 16152 Black New Orleans: A Research Brenda Marie Osbey
AFRI 1630 S01 16153 Modernist Africana Poetry Brenda Marie Osbey

American Studies
AMST 1600A S01 15896 Global Macho: Action Movies Matthew Gutier
AMST 1611A S01 15184 20thC US Immigrant Ethnic Lit Richard Alan Meckel
AMST 1901D S01 16352 Postcolonial Tales of Transitn Olakunle George
AMST 1905K S01 16366 Asian Americans/Social Justice Robert George Lee

Ancient Western Asian Studies
AWAS 0800 S01 15154 Intro to Ancient Near East Ann T. Shafer

Anthropology
ANTH 0200 S01 16171 Culture and Human Behavior Sarah Alexander Chase
ANTH 0300 S01 16173 Culture and Heath Alice C. Nye
ANTH 0800 S01 15110 Intro to Linguistic Anthro Paja L. Faudree
ANTH 1110 S01 15111 Africa in Anthro Perspective Adia Benton
ANTH 1126 S01 16442 Arch. Ethnographies: Heritage Peter van Dommelen
ANTH 1151 S01 16185 Ethnographies Muslim Mid East Ian B. Straughn
ANTH 1250 S01 14622 Film/Anthro:Ident/Imag Ind Soc Lina M. Fruzzetti

Classics
CLAS 1160 S01 16434 Classics of Indian Literature David Buchta

Comparative Literature
COLT 1811T S01 16760 Levantene Cities Evangelos Calotychos

Economics
ECON 1310 S01 15603 Labor Economics Dror Brenner
ECON 1485 S01 16376 Social Security Reform Eytan Sheshinski

Education
EDUC 0610 S01 16224 Brown v. Board of Education Tracy L. Steffes
EDUC 1700 S01 14775 Asian Americans in Higher Educn D. Cartaga-Lo

Egyptology
EGYT 1485 S01 16536 Medicine in Ancient Egypt Andreas Winkler

English
ENGL 0500J S01 15168 Literature of Identity Jacques Khalip
ENGL 0710E S01 15172 Postcolonial Tales of Transitn Olakunle George
ENGL 1710P S01 15177 Lit and Culture of Black Power Rolland D. Murray
ENGL 1767T S01 15299 The Texts of Africa Olakunle George
ENGL 1900R S01 15179 Aesthetics and Sexuality Jacques Khalip

Ethnic Studies
ETHN 0270 S01 15897 Intro to Latinas/os History Monica M. Martinez
ETHN 0790D S01 15898 Race and Remembering Monica M. Martinez

German Studies
GRMN 1440R S01 15824 Bertolt Brecht Kristina C. Mendicino

Hispanic Studies
HISP 0730 S01 15854 Early/Contmp Wtr of Span Amer Jose R. Ortiz Castillo

History of Art and Architecture
HIAA 0770 S01 14894 Arch Urbanism African Diaspora Itohan I. Osayimwese

History
HIST 1553 S01 16027 Slavery-Early Modern World Adam Teller
HIST 1970N S01 16026 Christian Muslim Relations Anthony J. Watson

Middle East Studies
MES 0155 S01 16619 Cultures Contemp. Middle East Sa’ed Adel Atshan
MES 1001 S01 16800 Revolution + Poets:Iran Poetry Mohsen Namjoo
MES 1050 S01 16506 Israel/Palestine:Critical Lexi Adi Ophir
MES 1997B S01 16484 Visualizing the Middle East Amal Sachedina
MES 1999B S01 16483 Colonialism and Human Rights Nicola Perugini
MES 1999C S01 16613 Elites in Arab Culture/Society Maysun Surrarce

Music
MUSC 1935 S01 16097 Brazilian Music and Society Christopher Joshua Tucker

Public Health
PHP 1070 S01 15907 Brdn of Disease in Devel Cntry Stephen T. McGarvey
PHP 1100 S01 16377 Comparative Health Care Sysms Omar Galignara
PHP 1680I S01 16363 Disability/Health and Community Sarah E. Skeels
PHP 2170 S01 15914 Injury As A Public Health Prob Megan L. Ranney

Public Policy and American Institutions
PPAI 1701W S01 16690 Race and Public Policy Steven M. White

Religious Studies
RELS 0150 S01 15044 Islam Unveiled Nancy Khalak
RELS 0825 S01 16486 African American Theology Andre Willis
RELS 1325A S01 16072 Educating Bodies in Ancient Ch Susan Ashbrook Harvey

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Russian
- RUSS 0320C S01 16192 Demons and Angels Michal Oklot
- RUSS 1840 S01 15295 Nabokov Michal Oklot

### Turkish
- TKSH 0100 S01 16816 Introduction to Turkish Elissavet Amanatidou

### Urban Studies
- URB 0210 S01 15013 The City: Intro to Urban Stdy Jan Mateusz Paczewicz
- URB 1230 S01 15017 Crime and the City Stefano E. Bloch

### Spring 2015

#### Africana Studies
- AFRI 0990 S01 25399 Black Lavendr-Gay*Lesbn Plays Elmo Terry-Morgan
- AFRI 1020C S01 25397 Afro-Luso-Brazilian Triangle Anani Dzidzienyo
- AFRI 1050E S01 25396 RPM Playwriting Elmo Terry-Morgan
- AFRI 1050Q S01 25483 New Narratives in Afr Amer Hist Wanda W. Bayeza
- AFRI 1060E S01 25393 W African Writs/Poltcl Kingdm Anani Dzidzienyo
- AFRI 1380 S01 25391 Knowledge, Texts + Methodology Barrymore A. Bogues

#### American Studies
- AMST 1905L S01 25701 Transpacific Popular Culture Robert George Lee

#### Ancient Western Asian Studies
- AWAS 1100 S01 24464 Gods/Myths in Mesopotamia Matthew T. Rutz

#### Anthropology
- ANTH 0066D S01 24422 Who Owns the Past? Patricia E. Rubertone
- ANTH 0100 S01 24424 Intro to Cultural Anthropology Jessaca B. Leinaweaver
- ANTH 0130 S01 25740 Myths Wylliam S. Simmons
- ANTH 0250 S01 25694 Gold: A "Barbarous Relic" Ian B. Straughn
- ANTH 0505 S01 26079 Intro. to S. American Arch. Nicholas P. Carter
- ANTH 1020 S01 24427 AIDS in Global Perspective Adia Benton
- ANTH 1240 S01 24430 Religion and Culture Bhrigupati Singh
- ANTH 1242 S01 24431 Bioethics and Culture Katherine A. Mason
- ANTH 1253 S01 24141 The Visual in Anthropology Lina M. Fruzzetti
- ANTH 1305 S01 26022 Medical Humanities Alice C. Nye
- ANTH 1320 S01 24432 Anthro + Internationl Devlpmnt Adia Benton
- ANTH 1400 S01 25481 Race,Culture + Ethnic Politics Lina M. Fruzzetti
- ANTH 1470 S01 26080 Illustrating/Interpreting Past Nicholas P. Carter
- ANTH 1552 S01 24433 Environmental Change Amy L. Moram-Thomas

#### Czech
- CZCH 0320A S01 25773 Czech Animation Masako Ueda Fidler

#### Economics
- ECON 1305 S01 24023 Economics of Education Justine Hastings
- ECON 1360 S01 25684 Health Economics Anna Aizer
- ECON 1480 S01 24926 Public Economics Nathaniel G. Hilger
- ECON 1510 S01 24024 Economic Development Anja Sautmann

#### Education
- EDUC 0410E S01 25455 Empowering Youth Margary D. Martin

#### English
- ENGL 0710J S01 24655 Intro to Asian American Lit Daniel Kim
- ENGL 0760R S01 25062 The Claims of Fiction Olakunle George
- ENGL 1711E S01 24843 African American Literature Roland D. Murray
- ENGL 1761V S01 24642 The Korean War in Color Daniel Kim

#### Gender and Sexuality Studies
- GNSS 0090C S01 24249 Reproductive Health Sarah D. Fox

#### History
- HIST 1971X S01 24219 From Emancipation To Obama Francoise N. Hamlin

#### Italian Studies
- ITAL 1400P S01 25884 Southernians Colonialism Meditter Nicola Perugini

#### Judaic Studies
- JUDS 1718 S01 25503 Modernity and Jews Mary Gluck
- JUDS 1752 S01 26148 Zionists and Anti-Zionists Rachel Rojanski

#### Literary Arts
- LITR 1150Z S01 25472 Reading for Writers Carole Maso
- LITR 1230J S01 24518 Writing: Material Differences John H. Cayley

#### Middle East Studies
- MES 1995 S01 26081 Critics of Zionism Adi Ophir
- MES 1997C S01 26076 Islam and Modernity Amal Sachedina
- MES 1999D S01 26094 Anh/Soc of Development Mayssun Saccour

#### Music
- MUSC 1932 S01 25360 American Roots Music Kiri M. Miller

#### Public Health
- PHP 1400 S01 24500 HIV/AIDS in Africa Moduva Ghee
- PHP 1500 S01 25281 Global Health Nutrition Stephen T. McGarvey
- PHP 1600 S01 24502 Obesity in the 21st Century Akiiah J. Keita
- PHP 1680T S01 24501 Transitn Diffus Hth Prom Prog William Rakowski
- PHP 1920 S01 25222 Social Determinants of Health Eric B. Loucks
- PHP 2330 S01 24503 Approaches to HIV Prevention Don Onerorio
- PHP 2360 S01 24505 Public Health Interventions TBD
- PHP 2380 S01 24506 Health Communication Kate B. Carey

#### Religious Studies
- RELS 0110 S01 25437 Christian Classics Susan Ashbrook Harvey
- RELS 0325 S01 24321 How the Bible Became Holy Michael L. Satlow
- RELS 0640 S01 25439 Dying To Be With God Nancy Khalek

#### Russian
- RUSS 0123 S01 25646 From Socrates to Snowden Vladimir Golstein
- RUSS 1720 S01 25477 Decadent Identities Michal Oklot

#### Theatre Arts and Performance Studies
- TAPS 1281O S01 25811 Acting Outside the Box Kym Moore

#### University Courses
- UNIV 1001 S01 25504 Israeli-Palestinian Conflict David C. Jacobson

#### Urban Studies
- URB 1200 S01 25103 The U.S. Metropolis, 1945-2000 Samuel Zipp
- URB 1240 S01 25948 The Global Black Metropolis Rebecca L. Carter
- URB 1870R S01 25105 Bottom-up Urbanism Stefano E. Bloch

#### First Year Seminars

### Fall 2014

#### Anthropology
- ANTH 0066P S01 15108 Transnational Lives Jessaca B. Leinaweaver

#### Applied Mathematics
- APMA 0100 S01 15591 Elementary Probability Paul G. Dupuis

#### Archaeology and Ancient World
- ARCH 0220 S01 16487 Fake! History of Inauthentic Felipe Rojas Silva

#### Biology
- BIOL 030A S01 14672 Tech/Anlys DNA-based Biotech Jody Hall
- BIOL 0350D S01 14947 Techin Regenerative Mdcne Beth Anne Zieniski-Habershaw
- BIOL 0190E S01 14471 Botanical Roots/Mod Medicines Fred V. Jackson
- BIOL 0190P S01 14475 Devl of Scientific Theories Stephen L. Helfand
Public Health
PHP 0030 S01 25322 Health of Hispaniola Timothy M. Empkie

Liberal Learning

Fall 2014

Africana Studies
AFRI 0090 S01 16146 An Intro to Africana Studies Francoise N. Hamlin AFRI 1150 S01 16147 Afro-Caribbean Philosophy Paget Henry

Anthropology
ANTH 0066P S01 15108 Transnational Lives Jessaca B. Leinaeaver ANT 0066JU S01 16472 Arch. of Native American Art Robert W. Preucel ANTH 0110 S01 15804 Inequality and Dev. and Health Daniel J. Smith ANTH 0200 S01 16171 Culture and Human Behavior Sarah Alexander Chase ANTH 0300 S01 16173 Culture and Health Alice C. Nye ANTH 0800 S01 15110 Intro to Linguistic Anthro Paja L. Faudree ANTH 1110 S01 15111 Africa in Anthro Perspective Adia Benton ANTH 1111 S01 16441 Anthropology of China Katherine A. Mason ANTH 1126 S01 16442 Arch. Ethnographies: Heritage Peter van Dommeien ANTH 1151 S01 16185 Ethnographies Muslims Mid East Ian B. Straughn ANTH 1250 S01 14626 Film/Anthro:Ident/Imag Ind Soc Lina M. Fruzzetti ANTH 1300 S01 16175 Anthropology of Addictions Irene Glasser ANTH 1620 S01 16727 Global Historical Archaeology Emily Button

BioMed-Neuroscience
NEUR 0010 S01 15769 The Brain: Intro to Neuroscience Michael A. Paradiso

Biology
BIOL 0030 S01 14468 Principles of Nutrition Mary M. Flynn BIOL 0370 S01 15941 Experimental Evolution Daniel M. Weinreich

Classics
CLAS 0020 S01 15474 The Romans Joseph D. Reed CLAS 0950 S01 15891 The Myth of the Seven Stephen E. Kidd CLAS 1120B S01 15858 Epic Poetry: Homer to Lucan Pura Nieto Hernandez

Cognitive, Linguistic and Psychological Sciences
CLPS 0030 S01 15726 Intro to Linguistic Theory Scott H. Anderbois CLPS 0610 S01 15733 Nature of Cognitive Development James L. Morgan

Comparative Literature
COLT 0810F S01 15124 Desire and the Marketplace Meera Sushila Viswanathan COLT 0811I S01 15125 Classical Mythology/Western Trad Molly Ierulli

Computer Science
CSCI 0020 S01 15521 The Digital World Donald L. Stanford CSCI 0391 S01 15534 Intro to CS for Hum + Soc Sci John F. Hughes

Education
EDUC 0610 S01 16224 Brown v. Board of Education Tracy L. Steffes EDUC 1700 S01 14775 Asian Americans in Higher Edu Liza D. Carriaga-Lo

English
ENGL 0310A C01 17004 Shakespeare Stephen Meriam Foley ENGL 0310A S01 15303 Shakespeare Stephen Meriam Foley ENGL 0500J S01 15168 Literature of Identity Jacques Khalip ENGL 0710D S01 15304 The Dead and the Living Ravit Reichman ENGL 0910A S01 15173 The Myth of the Seven Nancy Khalke ENGL 1760G S01 15178 Amer British Poetry Since 1945 Mutlu Konuk Blasing

Center for Environmental Studies
ENVS 0070C S01 15935 Transcribing Trans-pdf Impacts Kurt Teichert ENVS 0070D S01 15924 Misusing Scientific Info Cornelia Dean ENVS 0510 S01 15927 Intern Environmt Law/Policy Caroline Anne Karp ENVS 1400 S01 15936 Sustainable Design Kurt Teichert

Hispanic Studies
HISP 0730 S01 15854 Early/Contemp Wtr of Span Amer Jose R. Ortiz Castillo

History
HIST 1970N S01 16026 Christian Muslim Relations Anthony J. Waton

Japanese
JAPN 0910E S01 15923 Advanced Reading for Research Kikuko Yamashita

Literary Arts
LITR 1151B S01 16758 Figures of Thought Fanny Q. Howe

Modern Culture and Media
MCM 0110 S01 14952 Intro to MCM Philip Rosen MCM 0750 S01 16658 Art in Digital Culture Elisa Giardina Papa

Music
MUSC 0200 S01 16090 Computers and Music Todd E. Winkler MUSC 1935 S01 16097 Brazilian Music and Society Christopher Joshua Tucker

Portuguese and Brazilian Studies
POBS 0910 S01 15918 On the Dawn of Modernity Onesimo T. Almeida

Public Health
PHP 0320 S01 14808 Introduction to Public Health Melissa A. Clark PHP 1070 S01 15907 Brdn of Disease in Devel Cntry Stephen T. McGarvey PHP 1860 I S01 16383 Disability/Health and Community Sarah E. Skeels

Religious Studies
RELS 0050 S01 15004 Love: The Concept and Practice Mark Cladis RELS 0090 S01 15668 Ecological Democracy and Ecology Mark Cladis RELS 0150 S01 15044 Islam Unveiled Nancy Khalke RELS 0400 S01 15671 New Testament/Begin of Chrstnty Nicola F. Denzey RELS 0825 S01 16486 African American Theology Andre Willis RELS 0830 S01 15003 Kant to Nietzsche Thomas A. Lewis RELS 1000 S01 15019 Methods in Religious Studies Paul E. Nahme RELS 1325A S01 16072 Educating Bodies in Ancient Ch Susan Ashbrook Harvey

Russian
RUSS 0300C S01 16192 Demons and Angels Michal Oklot RUSS 1019 S01 16439 Russian Women’s Writing Erin Katherine Kahle RUSS 1840 S01 15295 Nabokov Michal Oklot

Science and Society
SCSO 1700P S01 16488 Neuroethics Jeffrey S. Poland

Urban Studies
URBN 0210 S01 15013 The City: Intro to Urban Stdy Jan Mateusz Pacewicz URBN 1230 S01 15017 Crime and the City Stefano E. Bloch

Spring 2015

Africana Studies
AFRI 1360 S01 25391 Knowledge, Texts + Methodology Barrymore A. Bogues

American Studies
AMST 1612Q S01 24521 Women / Writing / Power Beverly Haviland

Anthropology
ANTH 0100 S01 24424 Intro to Cultural Anthropology Jessaca B. Leinaeaver ANTH 0130 S01 25740 Myths Alive William S. Simmons ANTH 0250 S01 25894 Gold: A “Barbarous Relic” Ian B. Straughn ANTH 0500 S01 25479 Anthropological Archaeology Andrew K. Scherer ANTH 0505 S01 26079 Intro. to S. American Arch. Nicholas P. Carter ANTH 1020 S01 24427 AIDS in Global Perspective Adia Benton ANTH 1221 S01 24428 Anthropology of Masculinity Matthew C. Gutmann ANTH 1240 S01 24430 Religion and Culture Bhrigupati Singh ANTH 1243 S01 24431 Bioethics and Culture Katherine A. Mason ANTH 1253 S01 24141 The Visual in Anthropology Lina M. Fruzzetti

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ANTH 1301 S01 25475 Anthropology of Homelessness Irene Glasser
ANTH 1305 S01 29022 Medical Humanities Alice C. Nye
ANTH 1320 S01 24432 Anthro + International Devlpmnt Adia Benton
ANTH 1470 S01 26080 Illustrating/Interpreting Past Nicholas P. Carter
ANTH 1552 S01 24433 Environmental Change Amy L. Moran-Thomas
ANTH 1720 S02 26142 The Human Skeleton Sarah Elizabeth Newman
ANTH 2560 S01 24440 Archaeology of Human Remains Andrew K. Scherer

Applied Mathematics
APMA 0090 S01 25295 Operatns Rsrch-Problistc Modes Boris L. Rozovsky

Archaeology and Ancient World
ARCH 0030 S01 25388 Art in Antiquity: An Intro Anne Chen
ARCH 0370 S01 26073 Archaeology of Mesopotamia James F. Osborne

Biology
BIOL 0200 S01 23848 Foundation of Living Systems Kenneth Raymond Miller

Classics
CLAS 0010 S01 25075 The Greeks Stephen E. Kidd

Cognitive, Linguistic and Psychological Sciences
CLPS 0200 S01 24970 Human Cognition Joseph L. Austerweil
CLPS 0510 S01 24973 Perception, Illusion, Vis Art William H. Warren

Comparative Literature
COLT 1430H S01 25077 Poetry, Art, and Beauty Stephen Merriam Foley

Computer Science
CSCI 0080 S01 25898 Overview of Computer Science Michael L. Littman
CSCI 0931 S01 24799 Intro to CS for Hum + Soc Sci Hammurabi Das Chagas Mendes
CSCI 1800 S01 25413 Cybersec and Intl Relations John E. Savage

Czech
CZCH 0320A S01 25773 Czech Animation Masako Ueda Fidler

English
ENGL 0310A S01 24657 Shakespeare Karen _ Newman
ENGL 1560A S01 24669 Jane Austen and George Eliot Ellen Frances Rooney
ENGL 1560W S01 24688 Getting Emotional Jacques Khalip
ENGL 1561G S01 24662 The War in Color Daniel Kim
ENGL 1900D S01 24662 Literature and Politics William Keach

History
HIST 1430 S01 24186 Truth on Trial Carolien Castiglione

Italian Studies
ITAL 1400P S01 25884 Southernism Colonialism Mediterr Nicola Perugini

Judaic Studies
JUDS 1718 S01 25503 Modernity and Jews Mary Gluck
JUDS 1752 S01 26148 Zionists and Anti-Zionists Rachel Rojanski

Literary Arts
LITR 1150Z S01 25609 London Consequences Jason T. Schwartz

Modern Culture and Media
MCM 0260 S01 24267 Cinematic Coding/Narrativity Philip Rosen

Public Health
PHP 0310 S01 25210 Health Care in US Ira B. Wilson

Religious Studies
RELS 0065 S01 24310 On Being Human Thomas A. Lewis
RELS 0068 S01 24318 Religion and Torture Stephen S. Bush
RELS 0110 S01 25437 Christian Classics Susan Ashbrook Harvey
RELS 0640 S01 25439 Dying To Be With God Nancy Khalek

Russian
RUSS 1720 S01 25477 Decadent Identities Michal Oklot

Science and Society
SCSO 1000 S01 25633 Theories and Controversies Jeffrey S. Poland

Sociology
SOC 1118 S01 24341 Context Research for Innov. Lisa Dirac

University Courses
UNIV 1001 S01 25504 Israeli-Palestinian Conflict David C. Jacobson

Urban Studies
URBN 1200 S01 25103 The U.S. Metropolis, 1945-2000 Samuel Zipp

Writing-Designated Courses
Fall 2014

Africana Studies
AFRI 0090 S01 16146 An Intro to Africana Studies Francoise N. Hamlin
AFRI 0800 S01 16143 Race, Gender, + Urban Politics Keisha-Khan Y. Perry
AFRI 1010C S01 16774 Race, Gender, Ethics and Envir Vanessa Fabien

American Studies
AMST 0190 S01 15827 Re-Thinking Pol. Aesthetics Horace Donnell Ballard
AMST 0190J S01 16913 Four-Color Creatures Brent Akio Fujikyo
AMST 0191T S01 15626 American Identities Christopher Michael Elias
AMST 1250F S01 15183 Early Amer Houses/Furnishings Robert P. Emlyn
AMST 1600A S01 15896 Global Macho: Action Movies Matthew Guteri
AMST 1700J S01 15822 The Teen Age: In Cold War Amer Richard Alan Meckel
AMST 1901D S01 16352 Motherhood in Black and White Beverly Haviland

Ancient Western Asian Studies
AWAS 0800 S01 15154 Intro to Ancient Near East Ann T. Shafer

Anthropology
ANTH 0066P S01 15108 Transnational Lives Jessbaca B. Leinaweaver
ANTH 0300 S01 16173 Culture and Health Alice C. Nye
ANTH 1300 S01 16175 Anthropology of Addictions Irene Glasser

Archaeology and Ancient World
ARCH 0220 S01 16487 False! History of Inauthentic Felipe Rojas Silva
ARCH 1616 S01 16849 Sahara and Sea: North Africa Brett S. Kaufman

Biology
BIOL 0190U S01 14670 Plant Devel, Struct, Function Peter Heywood
BIOL 0430 S01 14841 Biological Design Sharon M. Swartz
BIOL 0430 S01 14803 Evolution of Plant Diversity Timothy J. Whitfeld
BIOL 0940A S01 14515 Viral Epidemics Walter J. Atwood
BIOL 1190 S01 14526 Synaptic Transmissn/Plasticity Julie Kauer
BIOL 1465 S01 14605 Human Population Genomics Sohini Ramachandran

Business, Entrepreneurship and Organizations
BEO 1930A S01 14993 BEO Capstone I Mary L. Fennell
BEO 1930B S01 14994 BEO Capstone I Steven F. Pletterti
BEO 1930C S01 14996 BEO Capstone I Thanh Chi Nguyen

Classics
CLAS 0020 S01 15474 The Romans Joseph D. Reed
CLAS 0660 S01 15476 The World of Byzantium Sarah E. Insley Say
CLAS 1190 S01 15891 The Myth of the Seven Stephen E. Kidd
CLAS 1700S S01 15858 Epic Poetry: Homer to Lucan Pura Nieto Hernandez
CLAS 1130 S01 16015 Anc Greek Society + Population Graham J. Oliver
CLAS 1310 S01 15479 Roman Hist I Rise/Fall Imp Repl Lisa M. Mignone

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Cognitive, Linguistic and Psychological Sciences
CLPS 0020 S01 15725 Intro to Cognitive Science Sheila E. Blumstein

Comparative Literature
COLT 0710I S01 15142 New Worlds Stephanie Merrim
COLT 0710N S01 15145 Comp Intro Lit of Americas Luiz Fernando Valente

Development Studies
DEVL 1980 S01 16517 Thesis Writing Development Stdy Atul Pokharel

East Asian Studies
EAST 1950F S01 14771 The Karma of Words Janine T. Anderson Sawada

Economics
ECON 1400 S01 16768 The Economics of Mass Media Jesse M. Shapiro

Education
EDUC 0400 S02 14632 Amer College/University-1960’s Luther Speeheh
EDUC 0610 S01 16224 Brown v. Board of Education Tracy L. Steffes
EDUC 1430 S01 14777 Psych of Race, Class + Gender Mona M. K. Abo-Zena
EDUC 1740 S01 14633 Academic Freedom on Trial Luther Speeheh
EDUC 1850 S01 14779 Moral Development + Education Jin Li

Egyptology
EGYT 1410 S01 15161 Ancient Egyptian Literature Leo Depuydt
EGYT 1485 S01 15163 Medicine in Ancient Egypt Andreas Winkler

Engineering
ENGN 1010 S01 15443 Entrepreneurial Process Daniel E. Warshay
ENGN 1010 S02 15444 Entrepreneurial Process Jon E. Cohen
ENGN 1230 S01 15422 Instrumentation Design Jerry Delmar Daniels
ENGN 1931E S01 16518 Writing Science Cornelia Dean

English
ENGL 0100A C01 17004 Shakespeare Stephen Merriam Foley
ENGL 0100A S01 15303 Shakespeare Stephen Merriam Foley

Center for Environmental Studies
ENVS 0070C S01 15937 Transcending Transptn Impacts Kurt Teichert
ENVS 0070D S01 15924 Misusing Scientific Info Cornelia Dean
ENVS 0110 S01 15930 Humans, Nature and the Environ Mariah D. King
ENVS 0455 S01 15931 Coastal Ecology + Conservation Mark D. Bertness
ENVS 0510 S01 15927 Internat Environml Law/Policy Caroline Anne Karp
ENVS 1415 S01 15934 Power, Justice, Climate Change J. Timmons Roberts
ENVS 1530 S01 15929 Proprty Rights/Environmnl Pol Caroline Anne Karp

Ethnic Studies
ETHN 0790D S01 15898 Race and Remembering Monica M. Martinez

French Studies
FREN 0750G S01 15831 L’animal dans la culture Thangam Ravindranathan
FREN 1330C S01 15833 French Women Writers Gretchen Schultz

Gender and Sexuality Studies
GNSS 1990 S01 14950 Senior Seminar Deborah F. Weinstein

Geological Sciences
GEOG 0160G S01 16052 Energy Resources James G. Hirth
GEOG 0160I S01 16069 Diamonds Stephen Parmen
GEOG 1110 S01 16059 Estuarine Oceanography Warren L. Prell
GEOG 1130 S01 16051 Ocean Biogeochemical Cycles Timothy D. Herbert
GEOG 1240 S01 16061 Stratigraphy and Sedimentation James M. Russell

German Studies
GRMN 0500F S01 15622 20th Century German Culture Cristina C Mendicino
GRMN 0500F S02 16665 20th Century German Culture Cristina C Mendicino
GRMN 0900C S01 15828 Intro to German Literature Michael D. Powers
GRMN 1440R S01 15824 Bertolt Brecht Cristina C. Mendicino

Hispanic Studies
HISP 0730 S01 15854 Early/Contmp Wrtr of Span Amer Jose R. Ortiz Castillo
HISP 0740 S01 15855 Intensive Survey of Spanish Lit Julia Chang
HISP 1290V S01 15971 All About Almodóvar: An Intro Sarah L. Thomas

History of Art and Architecture
HIAA 0031 S01 11909 Pre-Islamic Empires of Iran Anne Chen
HIAA 0070 S01 14894 Arch Urbanism African Diaspora Itahan I. Osayimwese
HIAA 1301 S01 16848 The Palaces of Ancient Rome Anne Chen
HIAA 1870B S01 16020 SoCa: Art in Los Angeles Courtney J. Martin

History
HIST 0970R S01 14978 Holocaust Historical Perspect Omer Bartov
HIST 0971G S01 14874 Age of Revolutions, 1760-1824 Jeremy R. Mumford
HIST 0971H S01 15156 Darwin’s England Joan L. Richards
HIST 0971M S01 15510 The Rise of Abolitionism Roquinaldo Ferreira
HIST 0971P S01 16702 Disease, Death, and Society Daniel A. Rodriguez
HIST 1553 S01 16027 Slavery-Early Modern World Adam Teller
HIST 1571 S01 15839 The Making of Modern East Asia Kerry Smith
HIST 1639 S01 15841 Sub-Saharan Africa Nancy J. Jacobs
HIST 1970G S01 15843 Life on Earth:The Anthropocene Nancy J. Jacobs
HIST 1970N S01 16026 Christian Muslim Relations Anthony J. Watson
HIST 1970S S01 14879 Charlemagne Jonathan P. Conant
HIST 1992 S01 16046 History Honors Workshop Ethan Pollock
HIST 1994 S01 16047 History Honors Thesis Part II Ethan Pollock

Humanities
HMAN 1971F S01 16334 World of Walden Pond Kenneth S. Sacks

International Relations
INTL 1801M S01 16388 Globalization/Rise of Asia David A. Wyss
INTL 1802G S01 16343 Reading Global Keith Brown
INTL 1802Q S01 16349 Global Corporate Accountabilit Peter A. Crouvetich
INTL 1802Q S02 16461 Iran + the Islamic Revolution Stephen A. Kinzer
INTL 1802R S01 16464 After Snowden: Spying in IR Timothy H. Edgar
INTL 1802S S01 16701 Politics of Intl Finance Walter T. Molano
INTL 1802U S01 16705 Intl Relations of Russia Nikolas K. Gvosdev
INTL 1802V S01 16802 Diplomacy, Econ + Influence Richard A. Boucher
INTL 1910 S01 16344 Senior Honors Seminar Claudia Elliott

Italian Studies
ITAL 0950 Intro to Intl Cinema:Film/Hist Suzanne Stewart-Steinberg
ITAL 1580 S01 14900 Word, Image, Power Ren. Italy Caroline Castiglione

Japanese
JAPN 0910E S01 15923 Advanced Reading for Research Kikuko Yamashita

Judaic Studies
JUDS 0050A S01 15093 Believers, Agnostics, Atheists David C. Jacobson
JUDS 0681 S01 15105 Great Jewish Books Michael L. Satlow
JUDS 1670 S01 15104 Synagogues, Churches + Mosques Katharina M. Galor
JUDS 1722 S01 15095 Modern Jewish Family Adam Teller

Literary Arts
LITR 0100A S01 16186 Introduction to Fiction Alec Niedenthal
LITR 0100B S01 16187 Introduction to Poetry Beata Kasiarz
LITR 0110A S01 15197 Fiction I Robert James Shaw
LITR 0110A S02 15198 Fiction I Oliva Kristina Olsen
LITR 0110A S03 15199 Fiction I Desiree Carla Bailey
LITR 0110A S04 15217 Fiction I Alexandra Gauss
LITR 0110B S01 15200 Poetry I Francesca Cara Capone
LITR 0110B S02 15201 Poetry I Danielle T. Vogel
LITR 0110B S03 15202 Poetry I Emily Goodman Means
LITR 0110B S04 15203 Poetry I Isabel Balee
LITR 0110D S01 15204 Digital Language Art I Eli Milholland
LITR 0110E S01 15207 Screenwriting I Hitsham Bizri
LITR 0210A S01 15208 Fiction Writing II Jason T. Schwartz
LITR 0210A S02 15209 Fiction Writing II Joanna E. Howard
LITR 0210B S01 15211 Poetry Writing II Christopher Osborn Schluter
LITR 0710 S01 15216 Writers on Writing Seminar Joanna E. Howard

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
POLS 1823U S01 26139 Individual Liberty and Mass In Daniel J. D'Amico
POLS 1823V S01 26141 The Politics Of Ethnic Content Linda J. Cook
POLS 1920 S01 24399 Senior Honors Thesis Preparatn Linda J. Cook

Public Health
PHP 0030 S01 25322 Health of Hispaniola Timothy M. Empkie

Public Policy and American Institutions
PPAI 0100 S01 24719 Introduction to Public Policy TBD
PPAI 1701M S01 26045 Juvenile Justice Instns + Picy Valerie A. Cooley

Religious Studies
RELS 0065 S01 24310 On Being Human Thomas A. Lewis
RELS 0068 S01 24318 Religion and Torture Stephen S. Bush
RELS 0110 S01 25437 Christian Classics Susan Ashbrook Harvey
RELS 0325 S01 24321 How the Bible Became Holy Michael L. Sattlow
RELS 0840 S01 25439 Dying To Be With God Nancy Khalek

Russian
RUSS 1300 S01 24172 Russian Lit in Translation II Vladimir Golstein

Science and Society
SCSO 1000 S01 25633 Theories and Controversies Jeffrey S. Poland

Sociology
SOC 1340 S01 24345 Prm/Method Georgphc Info Systm Rachel S. Franklin
SOC 1620 S01 24346 Globalization/Social Conflict Patrick G. Heller
SOC 1870K S01 24348 Demographics and Development Michael White
SOC 1870L S01 25870 Economic Foundations of Life Jan Mateusz Pacewicz
SOC 1871B S01 24350 Sociolog Perspectives on Povrty Gregory C. Elliott
SOC 1871D S01 24349 Sociology of Development Jose Itzigsohn
SOC 1871L S01 26059 Innovators, Entrepreneurs, Oth Lisa DiCarlo
SOC 1950 S01 24347 Senior Seminar Michael D. Kennedy

Theatre Arts and Performance Studies
TAPS 0100 S01 25015 Playwriting I Dalia Hamdan Taha
TAPS 0200 S01 25019 Playwriting II Richard Burkhardt
TAPS 1240 S01 25020 Perform Histriogrph/Theatr Hist Patricia Ybarra
TAPS 1250 S01 25016 20th-Cent W Theatre/Performanc Rebecca Schneider
TAPS 1270 S01 25981 Masking, Trancing, Performing Rebecca Schneider
TAPS 1380 S01 25022 Mise en Scene Spencer Golub
TAPS 1430 S01 24871 Russian Theatre and Drama Spencer Golub

University Courses
UNIV 1520 S01 24547 The Shaping of World Views Onesimo T. Almeida

Urban Studies
URBN 1000 S01 24413 Fieldwrk in the Urban Community Jan Mateusz Pacewicz
URBN 1200 S01 25103 The U.S. Metropolis, 1945-2000 Samuel Zipp
URBN 1870R S01 25105 Bottom-up Urbanism Stefano E. Bloch
URBN 1870T S01 26070 Transportation: Planning Pers Robert E. Azar

Visual Art
VISA 1800P S01 24835 Art/Work: Professionl Practice TBD

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

**Africana Studies**

**AFRI 0090. An Introduction to Africana Studies.**
This course introduces students to the vibrant and contested field of Africana Studies by critically exploring and analyzing the links and disjunctures in the cultural, political, and intellectual practices and experiences of people of African descent throughout the African diaspora. Beginning with a critical overview of the history, theoretical orientations, and multiple methodological strategies of the discipline, the course is divided into three thematic units that examine intellectuals, politics, and movements; identity construction and formation; and literary, cultural, and aesthetic theories and practices in the African diaspora. DPLL LILE WRIT

Fall
AFRI0090 S01 16146 TTh 1:00-2:20(10) (F. Hamlin)

**AFRI 0210. Afro Latin Americans and Blackness in the Americas.**
This course focuses on the position of Blacks in the national histories and societies of Latin America from slavery to the present-day. Emphasis is on a multidisciplinary engagement with issues and the exposure of students to the critical discussion of national images and realities about blackness and Africa-descended institutions and practices. The role of racial issues in national and transnational encounters and the consequences of migration of people and ideas within the hemisphere are explored. DPLL

Fall
AFRI0210 S01 16148 TTh 2:30-3:50(11) (A. Dzidzienyo)

**AFRI 0510T. American History and the Literary Imagination (ENGL 0510T).**
Interested students must register for ENGL 0510T.

Fall
AFRI0510T S01 16248 Arranged 'To Be Arranged'

**AFRI 0600. Race, Gender, and Urban Politics.**
This course will introduce students to the methods and practice of studying black urban life with a primary focus on US cities. We will critically examine the urban cultural studies debates concerned with race, gender, class and sexuality. The approach of the course will be interdisciplinary, drawing upon works from anthropology, literature, history, music, and film. Topics include tourism, immigration, poverty, popular culture, gentrification, violence, and criminalization. WRIT

Fall
AFRI0600 S01 16143 TTh 9:00-10:20(08) (K. Perry)

**AFRI 0710E. Postcolonial Tales of Transition (ENGL 0710E).**
Interested students must register for ENGL 0710E.

Fall
AFRI0710E S01 16253 Arranged 'To Be Arranged'

**AFRI 0770. Architecture and Urbanism of the African Diaspora (HIAA 0770).**
Interested students must register for HIAA 0770.

Fall
AFRI0770 S01 16960 Arranged 'To Be Arranged'

**AFRI 0990. Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre.**
An interdisciplinary approach to the study of plays that address the identities and issues of black gay men and lesbians and offers various perspectives from within and without the black gay and lesbian artistic communities. Focuses on analysis of unpublished titles. Also includes published works by Baraka, Bullins, Corbitt, Gibson, Holmes, West, and Pomo Afro Homos. Some evening screenings of videotapes. Enrollment limited to 40. DPLL

Spr
AFRI0990 S01 25399 TTh 10:30-11:50(09) (E. Terry-Morgan)

**AFRI 1010C. Race, Gender, Ethics and Environmental Justice.**
African Americans, Gender, Ethics and Environmental Justice examines the role of African Americans in the larger environmental history conversation. It utilizes a gendered lens to investigate how African American interpreted their natural surroundings and contributed to the development of 20th century American environmental consciousness. This course is reading and writing intensive. WRIT

Fall
AFRI1010C S01 16774 T 4:00-6:30(18) (V. Fabien)

**AFRI 1020C. The Afro-Luso-Brazilian Triangle.**
Examines three historical components of the South Atlantic in terms of history, culture, and contemporary political and economic consequences. European colonialism in Africa and Brazil constitutes the baseline for this exploration, but the long and tardy nature of Portuguese colonialism in Africa in comparison with other European colonial powers, especially in its post-World War II manifestations, is our starting point. Enrollment limited to 40. DPLL

Spr
AFRI1020C S01 25397 Th 4:00-6:30(17) (A. Dzidzienyo)

**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.

Spr
AFRI1050A S01 25394 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).

Spr
AFRI1050D S01 25395 Th 4:00-6:30(17) (E. Terry-Morgan)

**AFRI 1050E. RPM Playwriting.**
Research-to-Performance Method (RPM) Playwriting guides students through the process of developing new plays that are informed by scholarly research (workshop). DPLL

Spr
AFRI1050E S01 25396 Th 4:00-6:30(17) (E. Terry-Morgan)

**AFRI 1050G. Narrating the Radical Self.**
How black women in the United States and elsewhere have written about their lives in autobiographies will be the focus of this course. We will discuss black women’s use of autobiographical writing to document their own individual experiences in political movements as well as to provide key insights into how black people throughout the black diaspora have organized in recent history. Enrollment limited to 20.

Spr
AFRI1050G S01 25424 M 3:00-5:30(13) (K. Perry)

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

Spr
AFRI1050Q S01 25483 Th 4:00-6:30(17) (W. Bayeza)

**AFRI 1050R. The History of Afro Futurism and Black Science Fiction.**
Any class called The History Of Afro Futurism and Black Science Fiction automatically begs the question – “What, what isn’t futuristic about being Black in America?” The entire history of Black America can be seen as a fundamentally futurological and science fictional enterprise – a perpetual biding on hope and struggling for change endeavor that frequently employs far flung visions of tomorrow and other more oblique speculative stratagems in pursuit of outcomes barely foreseeable in the near-present. Enrollment limited to 25.

Spr
AFRI1050R S01 25484 T 4:00-6:30(16) (G. Tate)

**AFRI 1060E. West African Writers and Political Kingdom.**
Do West African writers have a role to play in the changing political landscape of their countries? An examination of the ways and means through which a select group of West African writers have dealt with issues that relate to the role of the state in the management of individual and group relations, the politics of gender, civil and military relations, and the construction of new forms of civil society. Enrollment limited to 20. DPLL

Spr
AFRI1060E S01 25393 W 3:00-5:30(14) (A. Dzidzienyo)

**AFRI 1060V. Black Transnationalism.**
This seminar will explore the complex dynamics of black transnationalism during the long 20th century, focusing on the circulation of ideas and practices by Africans and African-descended communities and how they were contested and reconfigured as they flowed back and forth. Particular attention will be paid to some less-examined archives, interpretations and
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 poetologists, the historicists, and existentialists. The second half consists of a more intensive comparative focus on the ontologies and epistemologies of two of these schools. DPLL LILE
Fall AFRI1150 S01 16147 MWF 2:00-2:50(07) (P. Henry)

This course will examine the dual Haitian Revolution as a pivotal moment in the making of the modern world. It will review the various historical interpretations of the Haitian events, examine how these events contribute to or trouble our ideas about modern politics and notions of freedom as well as our conceptions of revolution. The course will engage 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 the hosting of a joint Brown/RISD exhibition on Haitian Art. Enrollment limited to 15 juniors and seniors concentrating in Africana Studies, Visual Art, or History, and 10 RISD students.
Fall AFRI1190 S01 16458 M 3:00-5:30(15) (B. Bogues)

AFRI 1210. Afro-Brazilians and the Brazilian Polity.
Explores the history and present-day conditions of Afro-Brazilians, looking specifically at the uses of Africana in contemporary Brazil, political and cultural movements among Afro-Brazilians, domestic politics and its external dimensions, and Brazilian race relations within a global comparative framework. Texts from a variety of disciplines. A reading knowledge of Portuguese is not required but students so advantaged should inform the instructor. DPLL
Fall AFRI1210 S01 16150 W 3:00-5:30(17) (A. Dzidzienyo)

AFRI 1280. Writing About Race in the Post Civil Rights Era.
This seminar is an examination of the transformation of racial policies, relations and metorics since the end of the civil rights era in the United States. We will examine the complex ways race has remained central to US society and yet has dramatically shifted- examining terms such as: color-blind society; integration; political race, racialized (and gendered) community formation. Enrollment limited to 20. WRIT
Fall AFRI1280 S01 16159 W 3:00-5:30(17) (P. Rose)

This course will explore the issues of Africana Studies as a discipline by engaging in a series of critical readings of the central texts, which laid the protocols of the discipline. The course will also raise issues of knowledge production and methodologies. This course is a senior capstone seminar. Open to all senior Africana Studies concentrators; others by instructor permission only. Enrollment limited to 25. DPLL LILE
Spr AFRI1360 S01 25391 M 3:00-5:30(13) (B. Bogues)

AFRI 1561R. Touring the Empire: Travel Literature and the Idea of America (ENGL 1561R).
Interested students must register for ENGL 1561R.
Spr AFRI1561R S01 25609 Arranged

Examines the development of a unique African/ American cultural and political identity in New Orleans. The seminar focuses on the development of the Faubourg Tremé, the oldest free black community in the United States, and covers the period from 1718 until 1899. Topics include: slavery and resistance; relations between enslaved and free blacks; social and political agitation; and the resulting early development of the nation’s Civil Rights movement and legislation. There is discussion also of the formation and continued tradition of artists’ and artisans’ guilds; Creole language (e.g., Creole slave songs, proverb); NOLA relationship to the Caribbean and Latin America. Enrollment limited to 20. DPLL
Fall AFRI1620 S01 16152 T 4:00-6:30(18) (B. Oshey)

Focus on origins of Modernism among Africana authors of the Americas, with emphasis on the poetry, poetics and poetry movements of Brazil and Latin America, the Caribbean and US from 1888 through the first half of the 20th century. Begins with an overview of innovations wrought by Rubén Darío of Nicaragua, arguably the first modernist poet, and continues with the Harlem Renaissance of the 1910’s and 20’s; the Brazilian writers at the center of the Week of Modern Art of 1922; Caribbean writers of the Negrismo and Négritude movements; concludes with the work of such US and Anglophone Caribbean poets as Gwendolyn Brooks, Robert Hayden and Martin Carter. Enrollment limited to 20. DPLL
Fall AFRI1630 S01 16153 Th 4:00-6:30(02) (B. Oshey)

AFRI 1700C. Science and Technology Policy in the Global South (SCSO 1700C).
Interested students must register for SCSO 1700C.
Fall AFRI1700C S01 16789 Arranged

AFRI 1700Y. Cross-Knowledge: Contemporary Indigenous Knowledges and the Sciences (SCSO 1700Y).
Interested students must register for SCSO 1700Y.
Fall AFRI1700Y S01 16790 Arranged

AFRI 1710E. War Machines: Violence and Social Forms in West Africa (FREN 1710E).
Interested students must register for FREN 1710E.
Fall AFRI1710E S01 16288 Arranged

AFRI 1710P. The Literature and Culture of Black Power Reconsidered (ENGL 1710P).
Interested students must register for ENGL 1710P.
Fall AFRI1710P S01 16254 Arranged

AFRI 1760T. The Texts of Africa (ENGL 1760T).
Interested students must register for ENGL 1760T.
Fall AFRI1760T S01 16255 Arranged

AFRI 1920B. Health Inequality in Historical Perspective (BIOL 1920B).
Interested students must register for BIOL 1920B.
Fall AFRI1920B S01 16959 Arranged

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 1971J. From Emancipation To Obama (HIST 1971X).
Interested students must register for HIST 1971X.
Spr AFRI1971J S01 25614 Arranged

Interested students must register for HIST 1979D.
Fall AFRI1979D S01 16287 Arranged

This course will be a close reading of the various ideas, theories and practices of the thinkers, writers, artists and activists whose work and practices have constituted an Africana intellectual tradition. In conducting this review we will examine questions around the formation and the history of thought and intellectual traditions in general. We will also think about the various fields of knowledge which have shaped Africana thought. The course therefore will spend some time working through the different meanings of intellectual work and critical thought and theory. Enrollment limited to 12 graduate students.
Fall AFRI2001 S01 16199 W 3:00-5:30(17) (B. Bogues)

A preoccupation of Africana Studies involves the central yet highly contested role of the notion of what constitutes black culture in the modern world. To what degree can we claim aesthetic and other distinctions between black cultures in the Diaspora and other modern western cultural practices and expressive forms? What role did enslavement, forced migration and segregation play in shaping African culture in the modern west? These cultural debates which played a central role in literary.

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

AMST 0190L. Re-Thinking Political Aesthetics: Beauty, Modernity, and Justice in the Americas.
The United States and the Americas have always been spaces of intertwined artistic, political, and religious expression. Yet, in the growing field of political aesthetics, works of European modernism are prized while examples from the Americas are rarely mentioned. This course examines the philosophical texts used to frame the field of political aesthetics, as well as food in the colonial diet of New Spain, painting during the Civil War, photography and the New Negro movement, jazz and the Beat generation, and other case studies of American expression that engage, complicate and re-construct the relationship between art and politics. WRIT Fall AMST0190L S01 15827 TTh 9:00-10:20(08) (H. Ballard)

AMST 0190J. Four-Color Creatures: Race, Gender, and Monstrosity in American Comic Books and Popular Culture.
This course explores the relationship between race, gender, and monstrosity in African American popular culture, particularly in comic books and graphic novels. Utilizing the concept of the monster as a metaphor, we examine the intersection of these discourses to interrogate how monstrosity informs our collective understanding of the other and affects the representation of race and gender in contemporary print ephemera and visual culture. To compliment our understanding of these materials, we engage with scholarship in the emerging fields of Monster Studies and Comic Studies to highlight the way that these artifacts embody larger trends within American society. WRIT Fall AMST0190J S03 16913 MW 8:30-9:50(16) (B. Fujoka)

How do we think about our own place in history? This writing-intensive seminar examines how individual Americans have explored the relationship between their identity and historical events, and introduces the legitimacy of using individual experiences to understand history. Themes include the gendering of domestic and public space, the formation of identity within families, class alignments, societal expectations of gender/sexuality, how American exceptionalism manifests itself at the individual level, and narrative (un)reliability. Our discussions center on autobiographies, memoirs, and films from authors such as Audre Lorde, Harry Crews, Malcolm X, Alison Bechdel, Tobias Wolff, and Nick Flynn. WRIT Fall AMST0191T S01 15826 TTh 2:30-3:50(11) (C. Elias)

AMST 0191U. Imagining the American Mind.
How are theories about our minds and brains represented in American culture? We use literature and film, psychology, neuroscience, philosophy, history and sociology to investigate how we imagine our minds, and the consequeneces of those representations for our ideas about race and gender, for our social lives and responsibilities, for our means to communicate to one another and, even, to know ourselves. Writing in different formats, students bridge the gap between the humanities and the human sciences. Concentrators in biology and neuroscience consider the cultural history of their research while humanities/social science students explore how culture ties to science. WRIT Spr AMST0191U S01 25495 TTh 10:30-11:50(09) (S. Brown)

AMST 0191V. American Capitalism and Its Critics.
In the wake of the Great Recession, many Americans have become disenchanted with capitalism, wondering whether the market economy harms more than it helps. This course introduces students to writers, artists, and activists from the past who shared that feeling and in plays, essays, films, and photographs protested the rise of capitalism in the United States. We will explore issues of power, poverty, profit, and equality through in-class discussions and four writing assignments. Students interested in history, art, literature, and economics will learn more about class, capitalism, and the history of American politics. WRIT Spr AMST0191V S01 25493 TTh 9:00-10:20(06) (P. Pistai)

AMST 1250F. Topics in Material Culture: Houses and Their Furnishings in Early America.
Old houses and the objects used to furnish them are interpreted as material evidence of domestic life in colonial and early national America. Through slide lectures and field trips, this class examines Providence's
AMST 1510. Museum Collecting and Collections.
This course will explore and examine the methods, practices, and theory of collections management in a museum setting including collections development, museum registration methods, cataloging, collections care, and interpretation. Through readings, discussion, workshops, site visits, and exhibitions, students will explore what it means to be physically and intellectually responsible for museum objects. This course places heavy emphasis on experiential learning and will include several project-based assignments.
Fall AMST1510 S01 16839 MWF 11:00-11:50(04) (R. Potvin)

AMST 1600A. Global Macho: Race, Gender, and Action Movies.
Carefully sifting through an oft-overlooked but globally popular genre - the muscle-bound action - this class asks: what sort of work does an action movie do? What is the role of women in this genre? How should we scrutinize these supposedly empty trifles of the global popular? How should we think critically about movies that feature - often without apology - a deep, dangerous obsession with masculinity, patriarchy, war, and lawlessness, with violence outside of civil society. In short, from Hollywood to Hong Kong to Rio to Paris to Mexico City, what makes the action movie genre tick? DPLL, WRIT
Fall AMST1600A S01 15896 MWF 10:00-10:50(03) (M. Guterl)

Examines the literature of first and second generation immigrant/ethnic writers from 1900 to the 1970’s. Attempts to place the individual works (primarily novels) in their literary and sociocultural contexts, examining them as conscious works of literature written within and against American and imported literary traditions and as creative contributions to an ongoing national discourse on immigration and ethnicity. DPLL
Fall AMST1611A S01 15184 TTh 1:00-2:20(10) (R. Meckel)

AMST 1611Z. The Century of Immigration.
Examines in depth the period of immigration that stretched from the 1820s through the 1920s and witnessed the migration of over 36 million Europeans, Asians, Canadians, and Latin Americans to the United States. Explores causal theories of migration and settlement, examines the role of family, religion, work, politics, cultural production, and entertainment in immigrant/ethnic communities, and traces the development and impact of federal immigration policy.
Spr AMST1611Z S01 24520 TTh 2:30-3:50(11) (R. Meckel)

AMST 1612D. Cities of Sound: Place and History in American Pop Music.
This course investigates the relationship between popular music and cities. We will look at a number of case studies from the history of music in the twentieth century. We will try to tie out the ways that certain places produce or influence certain sounds and the ways that musicians reflect on the places they come from in their music. Accordingly, we will consider both the social and cultural history of particular cities and regions—New Orleans, Memphis, Chicago, New York, Washington DC, and others—and aesthetic and cultural analyses of various forms of music—including blues, jazz, punk, hip-hop, and others.
Spr AMST1612D S01 24522 MWF 11:00-11:50(04) (S. Zipp)

AMST 1612Q. Women / Writing / Power.
An introduction to American women’s writing and to the development of feminist literary practice and theory. This course will cover a broad historical range from the colonial poets Anne Bradstreet and Phillis Wheatley to contemporary writers Toni Morrison, a Nobel Laureate, and Marilynn Robinson, a Pulitzer Prize winner. Attention to the effects of racial, class, and cultural differences will inform this course that will focus on gender and literature. LILE
Spr AMST1612Q S01 24521 MWF 12:00-12:50(05) (B. Haviland)

AMST 1612T. Slackers and Hipsters: Urban Fictions, 1850-Present.
Slackers and Hipsters surveys the cult of the cool and disaffected in literature and film over two centuries. Beginning with Melville’s “Bartleby the Scrivener,” but also sampling works as varied as Chatterjee’s English August and Kunkel’s Indecision, we’ll examine both the aesthetic and political implications of the “slacker” in his/her ironic, apathetic, and peculiarly alienated view of the world.
Spr AMST1612T S01 25496 MWF 1:00-1:50(06) (R. Clytus)

AMST 1613B. Environmental History (HIST 1790).
Interested students must register for HIST 1790.
Fall AMST1613B S01 15763 Arranged "To Be Arranged"

AMST 1700J. 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 junior and senior American Studies concentrators. Others by permission of the instructor. WRIT
Fall AMST1700J S01 15822 M 3:00-5:30(15) (R. Meckel)

AMST 1800. Honors Seminar.
This seminar is for second-semester junior American Studies concentrators who are interested in writing an honors thesis in their senior year. The outcome of this course will be a proposal for the honors thesis along with a bibliography and a research plan and schedule. Topics covered will be the research methods associated with different disciplines; how to make the thesis interdisciplinary; integrating public projects and new media into a thesis. Open to juniors concentrating in American Studies.
Enrollment limited to 20. S/NC
Spr AMST1800 S01 24524 F 3:00-5:30(15) (B. Haviland)

AMST 1900E. Essaying Culture.
This course is interested in the essay as form, particularly its encounters with culture. 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, gnostic, 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 AMST1900E S01 24776 TTh 1:00-2:20(10) (R. Rodriguez)

AMST 1901D. Motherhood in Black and White.
Focuses on American motherhood with respect to race: under slavery; at the turn of the 20th century; and in contemporary society. Texts include fiction, film, history, feminist and psychoanalytic theory, e.g. "Uncle Tom's Cabin," "Incidents in the Life of a Slave Girl," "Imitation of Life," and "The Reproduction of Mothering." Enrollment limited to 20. Instructor permission required.
DPLL, WRIT
Fall AMST1901D S01 16352 Th 4:00-6:30(02) (B. Haviland)

AMST 1903L. 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.
Spr AMST1903L S01 24373 W 3:00-5:30(14) (S. Lubar)

AMST 1904N. The Korean War in Color (ENGL 1761V).
Interested students must register for ENGL 1761V.
Spr AMST1904N S01 25598 Arranged "To Be Arranged"

AMST 1904V. Decolonizing Minds: A People's History of the World.
This seminar will explore the knowledge-production and military-financial infrastructures that maintain empires, as well as the means through which people have either resisted or embraced empire. While some attention will be made to the 19th and early 20th century colonial context, the bulk of the course will focus on the Cold War liberal era to the neoliberal regime that continues today. Possible topics include: popular culture and ideology, the Cold War university, area studies, international anti-war networks, transnational labor activism, the anti-colonial radical tradition, and the

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Arab Spring/Occupy Movements. Weekly readings; evaluation based on participation and analytical essays. Enrollment limited to 20. DPLL
Spr AMST1904S S01 25708 W 3:00-5:30(14) (N. Shibasawa)

AMST 1905C. Mainstream Journalism in America (through the prism of The New York Times).
Jefferson is supposed to have said that if he were forced to choose between a free government and a free press he would choose a free press, because without it a free government would not survive. It is certainly true that newspapers, and later the electronic media, have had major impacts on American politics and society. Now these media are in a period of convulsive change; their business model is broken and no one can fix it. This course will consider the growth, evolution, influence and future of these media, particularly The New York Times. Enrollment limited to 20.
Spr AMST1905CS01 25688 M 3:00-5:30(13) (C. Dean)

AMST 1905E. American Poetry II: Modernism (ENGL 1711A).
Interested students must register for ENGL 1711A.
Spr AMST1905ES01 25590 Arranged 'To Be Arranged'

AMST 1905I. Touring the Empire: Travel Literature and the Idea of America (ENGL 1561R).
Interested students must register for ENGL 1561R.
Spr AMST1905I S01 25628 'To Be Arranged'

AMST 1905J. American Poetry I: Puritans through the Nineteenth Century (ENGL 1511O).
Interested students must register for ENGL 1511O.
Fall AMST1905JS01 16302 'To Be Arranged'

In 1868, in the largest strike that America had ever seen, ten thousand Chinese workers struck Central Pacific Railroad. One hundred 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. This course will examine the roles that Asian Americans have played in struggles over immigration and citizenship, civil liberties, and labor.
DPLL
Fall AMST1905KS01 16366 W 3:00-5:30(17) (R. Lee)

AMST 1905L. Transpacific Popular Culture.
General Tso’s Chicken is as American as apple pie; half the 8-year olds in the country seem to be taking Taekwondo; and K-Pop is huge in Mexico City. Asian/Pacific cultural productions have become ubiquitous in everyday North America. In this seminar we will use food, martial arts and new media, three spaces of cultural production where Asian Americans have a ubiquitous presence, as lenses through which to examine questions of immigration and labor, cultural authenticity and appropriation, identity formation and place making in a globalized cultural economy.
DPLL
Spr AMST1905LS01 25701 Th 4:00-6:30(17) (R. Lee)

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/NC

AMST 2010. Introduction to Interdisciplinary Methods.
Introduction to interdisciplinary studies required of all first-year graduate students in American Studies. Graduate students from other departments may enroll with permission of the instructor.
Fall AMST2010 S01 16414 W 1:00-2:50(17) (S. Zipf)

AMST 2020E. Introduction to Interdisciplinary American Studies.
This graduate-level course offers an introduction to the discipline of American Studies through a close reading of four important texts representing different methodologies and theories within the discipline. We will also read a series of seminal articles focused on transnationalism, highlighting the significance of border-crossings to the American experience throughout the semester. The goal of the course is to familiarize students with pedagogical approaches within American Studies, through active seminar discussions, fieldtrips within the community, and work with material and visual media as well as secondary texts.
Fall AMST2020E S01 16837 Th 4:00-6:30(02) (C. Frank)

AMST 2220G. Old Media New Artists: Innovation and Contingency in African American Culture.
What are the defining characteristics of newness in twentieth-century African American culture? How have black creative artists repurposed their respective disciplines in accordance with and against the shifting proclivities of African American social politics? Through an interdisciplinary focus that considers music, literature, visual arts, and interactive media, this seminar proposes several alternative epistemological frameworks for recognizing the emerging artistry of our time. Enrollment is limited to 20 graduate students.
Fall AMST2220GC S01 16595 Th 4:00-6:30(02) (R. Clycut)

AMST 2450. Exchange Scholar Program.
Fall AMST2450 S01 14373 Arranged 'To Be Arranged'

Examines the methodological and theoretical underpinnings of current and past American studies scholarship. Enrollment limited to graduate students with preference given to American Studies graduate students. S/NC
Fall AMST2520 S01 15210 Arranged (S. Smulyan)

AMST 2650. Introduction to Public Humanities.
This class, a foundational course for the MA in Public Humanities with preference given to American Studies graduate students, will address the theoretical bases of the public humanities, including topics of history and memory, museums and memorials, the roles of expertise and experience, community cultural development, and material culture. Enrollment limited to 20 graduate students.
Fall AMST2650 S01 15098 W 3:00-5:30(17) (S. Lubar)

The course offers an opportunity for RISD and Brown students to work together to understand the growing interdisciplinary field of public art. We will explore the potential of working in the public realm as artists and/or arts administrators. Topics include: pivotal events and artworks that formed the history of public art from the early 20th century to the present; approaches to site-specificity; ideas of community and audience; current debates around defining the public and public space; temporary vs. permanent work; controversies in public art; memorials, monuments, and anti-monuments; case studies; public art administration models, among others. It is both a seminar and a studio; students work individually and together on research, presentations, proposals and public projects. Contact the instructor Janet Zweig (janetzweig@earthlink.net). Enrollment limited to 12 seniors and graduate students. Instructor permission required.
Fall AMST2653 S01 14983 M 1:00-5:15(06) (J. Zweig)

Cultural policy is the aggregate of governmental activities in the arts, humanities, and heritage. This seminar explores its history and public/private context and offers practical insights about how to influence cultural policy design, especially methods to achieve public consensus through planning. Students discuss contemporary issues, examine policy planning principles, and learn practical methods through case study to develop policy recommendations. Enrollment limited to 20 seniors and graduate students.
Fall AMST2656 S01 14984 T 1:00-3:30(10) (C. Dreeszen)

AMST 2660. Projects in Public Humanities.
Devoted to one or more advanced projects in Public Humanities not covered in detail by the regular courses. Projects in public humanities provide practical, hands-on project and group project management experience that is essential for careers in museums, historic preservation, and cultural agencies. Students will work with faculty advisor to project completion. Written permission and topic description required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. This course is repeatable for credit. Prerequisite: AMCV 2650 or demonstrated ability of equivalent experience. Instructor permission required.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Semester</th>
<th>Instructor</th>
<th>CRN</th>
<th>Time</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST 2670</td>
<td>Practicum in Public Humanities</td>
<td>Fall</td>
<td>(A. Valk)</td>
<td>24471</td>
<td>Arranged</td>
<td>(S. Smulyan)</td>
</tr>
<tr>
<td>AMST 2680</td>
<td>Practicum in Public Humanities</td>
<td>Fall</td>
<td>(S. Smulyan)</td>
<td>24471</td>
<td>Arranged</td>
<td>(A. Valk)</td>
</tr>
<tr>
<td>AMST 2697</td>
<td>Museum Interpretation Practices</td>
<td>Fall</td>
<td>(S. Smulyan)</td>
<td>24471</td>
<td>Arranged</td>
<td>(A. Valk)</td>
</tr>
<tr>
<td>AMST 2699</td>
<td>Digital Storytelling</td>
<td>Fall</td>
<td>(S. Ganz Blythe)</td>
<td>15099</td>
<td>F 9:00-12:00(02)</td>
<td></td>
</tr>
<tr>
<td>AMST 2920</td>
<td>Independent Reading and Research</td>
<td>Fall</td>
<td>(M. London)</td>
<td>15096</td>
<td>T 4:00-6:30(18)</td>
<td></td>
</tr>
<tr>
<td>AMST 2921</td>
<td>Independent Reading and Research</td>
<td>Fall</td>
<td>(R. Preucel)</td>
<td>16472</td>
<td>F 9:00-11:30(16)</td>
<td></td>
</tr>
<tr>
<td>AMST 2922</td>
<td>Independent Reading and Research</td>
<td>Fall</td>
<td>(M. Hollos)</td>
<td>25813</td>
<td>M 3:00-5:30(15)</td>
<td></td>
</tr>
<tr>
<td>AMST 2990</td>
<td>Thesis Preparation</td>
<td>Fall</td>
<td>(J. Leinaweaver)</td>
<td>14374</td>
<td>Arranged</td>
<td>'To Be Arranged'</td>
</tr>
<tr>
<td>ANTH 0066D</td>
<td>Who Owns the Past?</td>
<td>Spr</td>
<td>(P. Rubertone)</td>
<td>24422</td>
<td>M 3:00-5:30(13)</td>
<td></td>
</tr>
<tr>
<td>ANTH 0066P</td>
<td>Transnational Lives: Anthropology of Migration and Mobilities</td>
<td>Spr</td>
<td>(J. Leinaweaver)</td>
<td>15108</td>
<td>M 1:00-3:30(06)</td>
<td></td>
</tr>
<tr>
<td>ANTH 0066U</td>
<td>An Archaeology of Native American Art</td>
<td>Spr</td>
<td>(J. Leinaweaver)</td>
<td>16472</td>
<td>F 9:00-11:30(16)</td>
<td></td>
</tr>
</tbody>
</table>

**Anthropology**

**Course Descriptions**

**AMST 2670. 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.

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

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

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

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

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ANTH 0130. Myths Alive.
Myth is an important part of the architecture that sustains human culture and society. This course begins w/an account of the principal theoretical positions that’ve shaped anthropological understandings of myth as a living and guiding force in human communities in ancient times and in the present day. We’ll examine the expressions of myth in senses of place, social harmony, inequality, conflict, religious experience, and radical social change in a wide variety of historical and ethnographic settings including Native America, West Africa, and colonial dislocations. We’ll draw upon objects from Brown’s Haffenreffer Museum to recognize them as materialized representations from mythical worlds. DPLL LILE
Spr ANTH0130 S01 25740 MWF 10:00-10:50(03) (W. Simmons)

ANTH 0200. Culture and Human Behavior.
The goal is to challenge our beliefs about some taken for granted assumptions about human behavior and psyche by examining cultures with different conceptions of self and cognition. We will examine the issues of the roles of nature, nurture in development, the nature of intelligence coming of age, the association of psychological characteristics with gender and the naturalness of emotions. DPLL LILE
Fall ANTH0200 S01 16171 MWF 10:00-10:50(03) (S. Chase)

ANTH 0250. Gold: The Culture of a “Barbarous Relic”.
An object of obsession for millennia, gold has recently witnessed a polarizing cultural politics. In congressional testimony former Fed Chair Ben Bernanke labeled it a “barbarous relic.” Meanwhile a growing minority clamor for a return to the gold standard. Whether among medieval alchemists or modern financial wizards, whether in the eyes of Egyptian Pharaohs or Indian peasants, gold’s special qualities have shaped cultural practice. This course explores the shiny yellow metal’s cultural history, from its emergence as an object of desire, to the contemporary rejection of its role as the store of wealth resulting in its demotion to just another commodity. DPLL LILE
Spr ANTH0250 S01 25894 TTh 10:30-11:50(09) (I. Straughn)

ANTH 0300. Culture and Health.
An introduction to the field of Medical Anthropology. Lecture reading and discussion will examine the social context of health and illness, looking at the diverse ways in which humans use cultural resources to cope with disease and develop medical systems. The course will provide an introduction to the overall theoretical frameworks that guide anthropological approaches to studying human health related behavior. Medical anthropology offers a unique and revealing perspective on the cultural diversity that characterizes human experiences of sexuality, disease, aging, mental illness, disability, inequality and death. DPLL LILE
WRIT
Fall ANTH0300 S01 16173 MWF 1:00-1:50(06) (A. Nye)

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. LILE
Spr ANTH0500 S01 25479 TTh 9:00-10:20(06) (A. Scherer)

ANTH 0505. Introduction to South American Archaeology.
The course examines the development of human cultures in South America, from the first Ice Age settlers to the arrival of the Spanish. Drawing on archaeological and historical evidence, it covers the complex civilizations of the Andes, including the Moche and Tiwanaku polities and the expansionist Inca empire. It also explores the archaeology of foraging societies throughout the continent and of sedentary societies in the Amazon region and northern South America whose complexity has only recently begun to be understood. The course concludes with a study of the Spanish Conquest and the transformation of indigenous societies during the Colonial period. DPLL LILE
Spr ANTH0505 S01 26079 MWF 1:00-1:50(06) (N. Carter)

ANTH 0800. Sound and Symbols: Introduction to Linguistic Anthropology.
This introduction to the study of language and culture considers how language not only reflects social reality but also creates it. We’ll examine specific cases of broad current relevance, in the process learning how an analytical anthropological approach to language use lays bare its often hidden power. We’ll consider how language creates and reinforces social inequality and difference, how language promotes and resists globalization, and how language is used creatively in performance, literature, film, advertising, and mass media. We will also consider how language does important social work in specific contexts, such as classrooms, courtrooms, medical settings, and political campaigns. DPLL LILE
Fall ANTH0800 S01 15110 MWF 11:00-11:50(04) (P. Faudree)

ANTH 1020. AIDS in Global Perspective.
Communities around the world are affected in different ways by the HIV-AIDS pandemic. This course is concerned with cross-cultural variation in knowledge, perception, and treatment of AIDS in a global context. Twenty-five years into the global epidemic, how does social and cultural variation influence the continued spread or management of the disease? In addition to reading significant anthropological works related to the meaning of AIDS in cultural context, the course will address major public health initiatives related to the global AIDS pandemic, and offer an anthropological critique of their design, implementation and success. Enrollment limited to 40. DPLL LILE
Spr ANTH1020 S01 24427 TTh 9:00-10:20(08) (A. Benton)

In this course we engage with anthropological literature and films on the diverse ethnicities, cultures, and "traditions" of sub-Saharan Africa. We trace the histories and the processes of cultural, social, and political change, beginning with colonialism and ending with the contemporary period. We will deconstruct and debunk dominant Western ideas of Africa that present it as primitive and characterized by poverty, AIDS, famine, and violence. We will learn about how Africans see and represent themselves through reading ethnographies, engaging with African popular culture, and watching documentary films. DPLL LILE
Fall ANTH1110 S01 15111 TTh 2:30-3:50(11) (A. Benton)

ANTH 1111. Anthropology of China.
This course introduces students to contemporary Chinese culture and society, w/a focus on the rapid changes that have taken place during the post-Mao reform era in the People’s Republic of China (1978- present). Emphasis will be placed on the importance of historical and global context in developing an understanding of contemporary Chinese culture. Readings and lectures will draw primarily upon recent ethnographic work conducted in the PRC, but readings from the disciplines of history, political science, public health, and contemporary Chinese literature (in translation) will also be incorporated. Topics: family life, urbanization, housing, migration, gender, health/disease, labor, globalization, and cyberculture. LILE
Fall ANTH1111 S01 16441 TTh 2:30-3:50(11) (K. Mason)

Archaeologists study objects and (socio-cultural) anthropologists investigate culture is how stereotype and conventions have long had it. As material culture studies have increasingly blurred these boundaries, the distinction is entirely meaningless when it comes to archaeological heritage. Taking its cue from material culture studies, this course explores how local communities experience the material remains from the past and (re)incorporate them into their contemporary lives. DPLL LILE
Fall ANTH1126 S01 16442 M 3:00-5:30(15) (P. van Dommelen)

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

Spr ANTH1221 S01 24428 TTh 1:00-2:20(10)  
(M. Gudmahn)

ANTH 1240. Religion and Culture.

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

Spr ANTH1240 S01 24430 TTh 10:30-11:50(09)  
(B. Singh)

ANTH 1242. Bioethics and Culture.

This course is an introduction to the work of medical anthropologists who have engaged with social and ethical implications of medical practice and biotechnologies. In this class we look at bioethical problems as ways to understand larger social questions and look at the ways in which society as a whole influences bioethical questions and decisions. Particular emphasis will be on questions about the beginnings and ends of life, genetic testing, pharmaceuticals, psychiatry, health inequalities, and organ transplantation. Prerequisites for the course are: a previous course in medical anthropology (e.g. Culture and Health) or a previous course in anthropology of exclusive authors to critically juxtapose their work with anthropological text. Looking at religion as a mode of thought, we examine theories that attempt to explain the origins, world-wide manifestation, and vitality of myths, rituals, magic, witchcraft, and other ways of thinking and acting that are typically associated with (or against) the concept of religion. Collaterally, we examine the methodologies by which we hope to understand the meaning of these concepts. DPLL LILE

ANTH 1250. Film and Anthropology: Identity and Images of Indian Societies.

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

Fall ANTH1250 S01 14622 TTh 10:30-11:50(13)  
(L. Fruzzetti)

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 anthropological text. Do films inform us or deviate from our understanding of the written ethnographical ethnographies? How do we read culture from the visual? Is culture or the social readable or not? DPLL LILE

Spr ANTH1253 S01 24141 TTh 2:30-3:50(11)  
(L. Fruzzetti)

ANTH 1255. Anthropology of Disasters.

This course examines disasters from an anthropological perspective. We focus on how disasters have been defined and understood, and work more broadly to see what they tell us about human conditions, vulnerabilities, and capacities for resilience building, survival, and long-term sustainability. Drawing on and comparing case studies from around the world, we also examine the nature of destructive agents; degrees of impact and injury; rescue, relief, and humanitarian responses; and the often slow and uneven process of recovery and resilience building.
ANTH 150. Senior Seminar: Politics and Symbols.
Examination of key role played by symbols, myth, and ritual in politics. We examine symbols, myths, and rituals used to win support, create political reality, and form political groups, whether in defense of the status quo or creating movements seeking to overthrow it. The 2014 U.S. congressional, state, and local political campaigns receive attention. Students, in part working in groups, will engage in original research both on the 2014 American elections and a wide variety of historical and contemporary political developments, from the Arab Spring to the Occupy Wall Street movement. Prerequisites: ANTH 1621 or 1900; and either ANTH 1940 or 1950.
Fall ANTH1910G S01 15114 W 3:00-5:30(17) (D. Kertzer)

ANTH 1940. Ethnographic Research Methods.
To understand the different theoretical assumptions that shape research efforts; to examine how hypotheses and research questions are formulated; and to appreciate the ethical and scientific dimensions of research by hands-on experience in fieldwork projects. Prerequisite: One Anthropology course.
Fall ANTH1940 S01 14621 Th 4:00-6:30(02) (L. Fruzzetti)

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

A seminar investigating some themes in the history of anthropological theory. Starting with the delineations of the scope and nature of social science by Marx, Durkheim, and Weber, the seminar then considers various explorations of the concepts of structure, function, and agency, concluding with Bourdieu’s reformulation of social anthropology for a new generation of the form of practice theory.
Fall ANTH2000 S01 15115 M 3:00-5:30(15) (W. Simmons)

A seminar exploring fundamental theoretical and ethnographic currents in 20th-century cultural anthropology.
Spr ANTH2010 S01 24435 Th 9:00-11:30(08) (J. Leineweaver)

A seminar on the methodological problems associated with field research in social and cultural anthropology. Designed to help students prepare for both summer and dissertation research.
Spr ANTH2020 S01 24436 W 12:00-2:30(05) (M. Hollos)

ANTH 2035. Professional Preparation for Anthropologists.
This course covers research ethics and politics, writing of proposals, theses, and articles, publishing, public speaking, CVs and resumes, and the job search.
Fall ANTH2035 S01 15116 W 12:00-2:30(12) (A. Benton)

ANTH 2040. Advanced Social Theory.
This seminar is for graduate students who have taken ANTH 2000 and ANTH 2010 or equivalent graduate introductory courses in anthropological theory. Topics to be explored in this seminar include contemporary theories of globalization, hybridity, the politics of identity, class, cultural citizenship, democracy, social suffering, structural violence, agency, human rights, militarization, the body, multisited ethnography, and writing culture.
Spr ANTH2040 S01 24437 W 3:00-5:30(14) (M. Gutmann)

ANTH 2315. Anthropology of State Power and Powerlessness.
How do we conceptualize state power? Is sovereign power primarily a capacity for force and coercion or a source of welfare and social analysis? States the world over often do not manage to provide adequate welfare or to maintain a monopoly on violence. How then might we understand state power not only as a capacity but also in its incapacities and vulnerabilities? We engage these paradoxes of power through classic texts of anthropology and political theory including Foucault, Deleuze, Weber, Hobbes, and Rousseau, in tandem with lively ethnographic analyses of state power in its capacities and incapacities.
Fall ANTH2315 S01 15117 Th 4:00-6:30(02) (B. Singh)

ANTH 2450. Exchange Scholar Program.
ANTH 2500A. Problems in Archaeology: Archaeology of Colonialism. 
Explores the theoretical discourses shaping anthropological approaches and defining archaeological projects on culture contact and colonialism. Attention will be given to examining colonial encounters between Europeans and indigenous peoples as ongoing processes rather than particular historical moments, and to looking at recent efforts at decolonizing archaeological practice.
Spr ANTH2500A S01 24438 Th 4:00-6:30(17) (P. Rubertone)

ANTH 2501. Principles of Archaeology. 
Examines theoretical and methodological issues in anthropological archaeology. Attention is given to past concerns, current debates, and future directions of archaeology in the social sciences.
Spr ANTH2501 S01 24439 F 9:00-11:30(02) (R. Preucel)

ANTH 2560. Lived Bodies, Dead Bodies: The Archaeology of Human Remains. 
Bioarchaeology is the study of human remains from archaeological contexts. We will survey the "state of the art" in bioarchaeology, while exploring its relevance and application to the archaeology of complex societies. We will survey a range of bioarchaeological methods and applications, including paleopathology, stable isotope analysis, population affinity/ancient DNA, perimortem trauma, and body modification. In turn, we will explore how bioarchaeology can be used to approach a wide range of archaeological problems relative to complex societies, including subsistence, economy, migration, urbanism, social inequality, conflict and warfare, and identity. Open to graduate students only. S/NC. LILE
Spr ANTH2560 S01 24440 W 5:00-7:20(14) (A. Scherer)

ANTH 2800. Linguistic Theory and Practice. 
An introduction to theoretical and methodological issues in the study of language and social life. We begin by examining semiotic approaches to language. We turn to classical research on language as a structured system - covering such topics as phonology and grammatical categories - but we focus on the implications of such work for broader social scientific and humanistic research. We then consider areas of active contemporary research, including cognition and linguistic relativity, meaning and semantics, pronouns and deixis, deference and register, speech acts and performativity, interaction, verbal art and poetics, reported speech, performance, and linguistic ideology.
Fall ANTH2800 S01 15118 W 3:00-5:30(17) (P. Faudree)

ANTH 2970. Preliminary Examination Preparation. 
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.
Fall ANTH2970 S01 14376 Arranged 'To Be Arranged'
Spr ANTH2970 S01 23750 Arranged 'To Be Arranged'

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

ANTH 2990. Thesis Preparation. 
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall ANTH2990 S01 14377 Arranged 'To Be Arranged'
Spr ANTH2990 S01 23751 Arranged 'To Be Arranged'

ANTH XLIST. Courses of Interest to Students Concentrating in Anthropology. 
Fall 2014
The following courses, listed in other departments, may be of interest to students concentrating in Anthropology. Please check the course listings of the sponsoring department for times and locations.

Archaeology and Ancient World
ARCH 0725 Great Migrations: Mobility, Displacement and Material Culture in the Ancient Mediterranean
French Studies
FREN 1710E War Machines: Violence and Social Forms in West Africa

Middle Eastern Studies

Fall ANTH2450 S01 14375 Arranged 'To Be Arranged'
Spr ANTH2450 S01 23749 Arranged 'To Be Arranged'

APMA 0100. Elementary Probability for Applications. 
This course serves as an introduction to probability and stochastic processes with applications to practical problems. It will cover basic probability and stochastic processes such as basic concepts of probability and conditional probability, simple random walk, Markov chains, continuous distributions, Brownian motion and option pricing. Enrollment limited to 20 first-year students. FYS
Fall APMA0100 S01 15991 TTh 2:30-3:50(11) (P. Dupuis)

For student 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 25286 MWF 9:00-9:50(02) (D. Venturi)

APMA 0200. Introduction to Modelling. 
This course provides an introduction to the mathematical modeling of selected biological, chemical, engineering, and physical processes. The goal is to illustrate the typical way in which applied mathematicians approach practical applications, from understanding the underlying problem, creating a model, analyzing the model using mathematical techniques, and interpreting the findings in terms of the original problem. Single-variable calculus is the only requirement; all other techniques from differential equations, linear algebra, and numerical methods, to probability and statistics will be introduced in class. Prerequisites: Math 0100 or equivalent.
Fall APMA0200 S01 16162 MWF 10:00-10:50(03) (B. Sandstede)

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 foundations. Topics include: first and second order differential equations, an introduction to numerical methods, series solutions, and Laplace transformations.
Spr APMA0330 S01 16076 MWF 12:00-12:50(12) (V. Dobrushkin)
Spr APMA0330 S01 25327 MWF 12:00-12:50(05) (C. Dafermos)

APMA 0340. Methods of Applied Mathematics I, II. 
Mathematical techniques involving differential equations used in the analysis of physical, biological, and economic phenomena. Emphasis on the use of established methods, rather than rigorous foundations. I: First and second order differential equations. II: Applications of linear algebra to systems of equations; numerical methods; nonlinear problems and stability; introduction to partial differential equations; introduction to statistics. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or advanced placement.
Fall APMA0340 S01 15995 MWF 12:00-12:50(12) (Y. Guo)
Spr APMA0340 S01 25288 MWF 12:00-12:50(05) (V. Dobrushkin)

APMA 0350. Methods of Applied Mathematics I, II. 
Covers the same material as APMA 0330, albeit of greater depth. Intended primarily for students who desire a rigorous development of the mathematical foundations of the methods used, for those students considering one of the applied mathematics concentrations, and for all students in the sciences who will be taking advanced courses in applied mathematics, mathematics, physics, engineering, etc. Three hours lecture and one hour recitation. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or advanced placement.
Fall APMA0350 S01 15996 MWF 11:00-11:50(04) (D. Kaspar)
Spr APMA0350 S01 25305 MWF 1:00-1:50(06) (D. Lipshutz)

MES 0155 Cultures of the Contemporary Middle East

Urban Studies

URBN 0230 Urban Life in Providence: An Introduction

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
APMA 0360. Methods of Applied Mathematics I, II. 
Covers the same material as APMA 0340, albeit of greater depth. Intended primarily for students who desire a rigorous development of the mathematical foundations of the methods used, for those students considering one of the applied mathematics concentrations, and for all students in the sciences who will be taking advanced courses in applied mathematics, mathematics, physics, engineering, etc. Three hours lecture and one hour recitation. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or advanced placement.

Fall APMA0360 S01 15997 MWF 1:00-1:50(06) (C. Dafermos)
Spr APMA0360 S01 25291 TTh 10:30-11:50(09) (Y. Guo)

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 probability theory, the normal distribution, sampling variability, elementary statistical inference, measures of association. Examples and applications from the popular press and the life, social and physical sciences. No prerequisites.

Spr APMA0650 S01 25334 TTh 9:00-10:20(08) (M. Harrison)

APMA 1070. Quantitative Models of Biological Systems. 
Quantitative dynamic models help understand problems in biology and there has been rapid progress in recent years. The course provides an introduction to the concepts and techniques, with applications to population dynamics, infectious diseases, enzyme kinetics, aspects of cellular biology. Additional topics covered will vary. Mathematical techniques will be discussed as they arise in the context of biological problems. Prerequisites: APMA 0300, 0340 or 0350, 0360, or written permission.

Fall APMA1070 S01 15998 MWF 11:00-11:50(04) (M. Maxey)

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

Spr APMA1080 S01 25293 TTh 10:30-11:50(09) (C. Lawrence)

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

Fall APMA1170 S01 15999 TTh 10:30-11:50(13) (A. Matzavinos Tournas)

APMA 1180. Introduction to Numerical Solution of Differential Equations. 

Spr APMA1180 S01 25294 MWF 11:00-11:50(04) (X. Li)

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

Spr APMA1200 S01 25295 MWF 2:00-2:50(07) (B. Rozovskiy)

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

Fall APMA1210 S01 16000 TTh 9:00-10:20(08) (X. Li)

APMA 1330. Methods of Applied Mathematics III, IV. 

Fall APMA1330 S01 16001 MWF 1:00-1:50(06) (G. Menon)

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

Spr APMA1360 S01 25296 MWF 1:00-1:50(06) (J. Gemmer)

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

Fall APMA1650 S01 16002 TTh 1:00-2:20(10) (C. Klivans)

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

Spr APMA1660 S01 25297 TTh 2:30-3:50(11) (B. Gidas)

Examination of probability theory and mathematical statistics from the perspective of computing. Topics selected from random number generation, Monte Carlo methods, limit theorems, stochastic dependence, Bayesian networks, dimensionality reduction. Suggested prerequisite: calculus-based probability. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350, or equivalent placement.

Spr APMA1690 S01 16003 MWF 2:00-2:50(07) (S. Geman)

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 16005 MWF 9:00-9:50(16) (M. Harrison)

APMA 1720. Monte Carlo Simulation with Applications to Finance. 
The course will cover the basics of Monte Carlo and its applications to financial engineering: generating random variables and simulating stochastic processes; analysis of simulated data; variance reduction techniques: binomial trees and option pricing; Black-Scholes formula; portfolio optimization; interest rate models. The course will use MATLAB as the standard simulation tool. Prerequisites: APMA 1650 or MATH 1610 Spr APMA1720 S01 25298 TTh 9:00-10:20(08) (H. Wang)
APMA 1740. Recent Applications of Probability and Statistics.
This course covers a selection of modern applications of probability and statistics in the computational, cognitive, engineering, and neural sciences. The emphasis will be on application. Topics: Markov chains and their applications to MCMC computing and hidden Markov models; Dependency graphs and Bayesian networks; parameter estimation and the EM algorithm; Nonparametric statistics ("learning theory"); including consistency, bias/variance tradeoff, and regularization; Gibbs distributions, maximum entropy, and their connections to large deviations.
Each topic will be introduced with several lectures on the mathematical underpinnings, and concluded with a computer project, by student individually, demonstrating the mathematics and the utility of the approach.
Fall APMA1740 S01 25433 MWF 11:00-11:50(04) (S. Geman)

APMA 1930M. Applied Asymptotic Analysis.
Many problems in applied mathematics and physics are nonlinear and are intractable to solve using elementary methods. In this course we will systematically develop techniques for obtaining quantitative information from nonlinear systems by exploiting small scale parameters. Topics will include: regular and singular perturbations, boundary layer theory, multiscale and averaging methods and asymptotic expansions of integrals. Along the way, we will discuss many applications including nonlinear waves, coupled oscillators, nonlinear optics, fluid dynamics and pattern formation.
Fall APMA1930M S01 16206 TTh 9:00-10:20(09) (J. Gemmer)

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

APMA 2110. Real Analysis.
Provides the basis of real analysis which is fundamental to many of the other courses in the program: metric spaces, measure theory, and the theory of integration and differentiation.
Fall APMA2110 S01 16006 TTh 10:30-11:50(13) (H. Dong)

APMA 2120. Hilbert Spaces and Their Applications.
A continuation of APMA 2110: metric spaces, Banach spaces, Hilbert spaces, the spectrum of bounded operators on Banach and Hilbert spaces, compact operators, applications to integral and differential equations.
Spr APMA2120 S01 25299 MWF 10:00-10:50(03) (H. Dong)

Fall APMA2190 S01 16007 TTh 2:30-3:50(11) (J. Mallet-Paret)

Spr APMA2200 S01 25300 TTh 2:30-3:50(11) (J. Mallet-Paret)

APMA 2410. Fluid Dynamics I.
Formulation of the basic conservation laws for a viscous, heat conducting, compressible fluid. Molecular basis for thermodynamic and transport properties. Kinematics of vorticity and its transport and diffusion. Introduction to potential flow theory. Viscous flow theory; the application of dimensional analysis and scaling to obtain low and high Reynolds number limits.
Fall APMA2410 S01 16008 MWF 2:00-2:50(07) (M. Maxey)

APMA 2450. Exchange Scholar Program.
Fall APMA2450 S01 14378 Arranged 'To Be Arranged'

Finite difference methods for solving time-dependent initial value problems of partial differential equations. Fundamental concepts of consistency, accuracy, stability and convergence of finite difference methods will be covered. Associated well-posedness theory for linear time-dependent PDEs will also be covered. Some knowledge of computer programming expected.
Fall APMA2550 S01 16009 W 3:00-5:30(17) (G. Karniadakis)

APMA 2560. Numerical Solution of Partial Differential Equations II.
An introduction to weighted residual methods, specifically spectral, finite element and spectral element methods. Topics include 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.
Spr APMA2560 S01 25301 W 3:00-5:30(14) (G. Karniadakis)

APMA 2570A. Numerical Solution of Partial Differential Equations III.
We will cover spectral methods for partial differential equations. Algorithm formulation, analysis, and efficient implementation issues will be addressed. Prerequisite: APMA 2550 or equivalent knowledge in numerical methods.
Fall APMA2570A S01 16010 M 3:00-5:30(15) (M. Ainsworth)

APMA 2580A. Computational Fluid Dynamics.
An introduction to computational fluid dynamics, with emphasis on compressible flows. We will cover finite difference, finite volume and finite element methods for compressible Euler and Navier-Stokes equations and for general hyperbolic conservation laws. Background material in hyperbolic partial differential equations will also be covered. Algorithm development, analysis, implementation and application issues will be addressed. Prerequisite: APMA 2550 or equivalent knowledge in numerical methods.
Spr APMA2580A S01 25302 M 3:00-5:30(13) (J. Guzman)

APMA 2610. Recent Applications of Probability and Statistics.
This is a topics course, covering a selection of modern applications of probability and statistics in the computational, cognitive, engineering, and neural sciences. The course will be rigorous, but the emphasis will be on application. Topics will likely include: Markov chains and their applications to MCMC computing and hidden Markov models; Dependency graphs and Bayesian networks; parameter estimation and the EM algorithm; Nonparametric statistics ("learning theory"), including consistency, bias/variance tradeoff, and regularization; Gibbs distributions, maximum entropy, and their connections to large deviations. Each topic will be introduced with several lectures on the mathematical underpinnings, and concluded with a computer project, carried out by each student individually, demonstrating the mathematics and the utility of the approach.
Spr APMA2610 S01 25303 MWF 11:00-11:50(04) (S. Geman)

A one-semester course that provides an introduction to probability theory based on measure theory. The course covers the following topics: probability spaces, random variables and measurable functions, independence and infinite product spaces, expectation and conditional expectation, weak convergence of measures, laws of large numbers and the Central Limit Theorem, discrete time martingale theory and applications.
Fall APMA2630 S01 16011 TTh 1:00-2:20(10) (B. Rozovsky)

A one-semester course in probability that provides an introduction to stochastic processes. The course covers the following subjects: Markov chains, Poisson process, birth and death processes, continuous-time martingales, optional sampling theorem, martingale convergence theorem, Brownian motion, introduction to stochastic calculus and Itô’s formula, stochastic differential equations, the Feynman-Kac formula, Girsanov’s theorem, the Black-Scholes formula, basics of Gaussian and stationary processes. Prerequisite: APMA 2630 or equivalent course.
Spr APMA2640 S01 25304 TTh 1:00-2:20(10) (P. Dupuis)

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

Fall APMA2670 S01 16012 Th 4:00-6:30(02) (B. Gidas)

APMA 2810Q. Stochastic Galerkin Methods.

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

Fall APMA281QC S01 16013 W 3:00-5:30(17) (C. Shu)


Finite element methods for the numerical solution of partial differential equations give rise to large systems of equations. In this course, we explore iterative methods for solving these systems in conjunction with preconditioners obtained using techniques including domain decomposition and multigrid methods. The course will be of interest to those involved with the solution of such systems. You should have a knowledge of finite element methods, their basic theoretical properties, and have written your own piecewise linear finite element code. You will be required to program the algorithms covered in the course and implement them in your own code.

Spr APMA2811S S01 25865 F 3:00-5:30(15) (M. Ainsworth)

APMA 2970. Preliminary Examination Preparation.

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

Fall APMA2970 S01 14379 Arranged "To Be Arranged"
Spr APMA2970 S01 23752 Arranged "To Be Arranged"

APMA 2980. Research in Applied Mathematics.

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

APMA 2990. Thesis Preparation.

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

Fall APMA2990 S01 14380 Arranged "To Be Arranged"
Spr APMA2990 S01 23753 Arranged "To Be Arranged"

Archaeology and Ancient World

ARCH 0300. Art in Antiquity: An Introduction.

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

Spr ARCH0300 S01 25388 MWF 12:00-12:50(05) (A. Chen)

ARCH 0315. Introduction to Egyptian Archaeology and Art.

An introductory survey of the archaeology, art and architecture of ancient Egypt, ranging in time from the prehistoric cultures of the Nile Valley through the period of Roman control. While the course will examine famous features and characters of ancient Egypt (pyramids, mummies, King Tut!), it will also provide a wide-ranging review of the archaeology of this remarkable land.

Fall ARCH0150 S01 16142 MWF 1:00-1:50(12) (L. Bestock)


Interested students must register for HIAA 0070.

Fall ARCH0156 S01 17115 Arranged "To Be Arranged"

ARCH 0201. Sport in the Ancient Greek World (CLAS 02100).

Interested students must register for CLAS 02100.

Spr ARCH0201 S01 25621 Arranged "To Be Arranged"

ARCH 0203. Who Owns the Past? (ANTH 0066D).

Interested students must register for ANTH 0066D.

Spr ARCH0203 S01 25617 Arranged "To Be Arranged"


What is a fake? Who gets to decide what is authentic? Greek statues, Chinese bronzes, Maya glyphs. Have fraudulent objects always existed? Gallileo’s signature, a centaur’s skeleton, Buddhas bearing swastikas. Are all fakes the same? If not, how are they different? Why do people make forgeries? This course revolves around the history of the inauthentic through a diachronic exploration of objects. FYS WRIT

Fall ARCH0220 S01 16487 Th 9:00-10:20(08) (F. Rojas Silva)

ARCH 0338. An Archaeology of Native American Art (ANTH 0066U).

Interested students must register for ANTH 0066U.

Fall ARCH0338 S01 16859 Arranged "To Be Arranged"

ARCH 0351. Introduction to the Ancient Near East (AWAS 0800).

Interested students must register for AWAS 0800.

Fall ARCH0351 S01 16280 Arranged "To Be Arranged"


Front-page news stories report the often-horrific actions and assertions of the Islamic State of Iraq and Syria (ISIS). This part of the world -- ancient Mesopotamia, the “cradle of civilization” -- is home, however, not only to modern geopolitical conflict, but to the world’s often equally violent earliest states and empires. This class introduces students to the archaeology and history of this extraordinarily rich region, whose cultures also pioneered the development of writing, astronomy, mathematics, urbanism, and beer.

LILE

Spr ARCH0370 S01 26073 MWF 1:00-1:50(06) (J. Osborne)

ARCH 0382. Pre-Islamic Empires of Iran (HIAA 0031).

Interested students must register for HIAA 0031.

Fall ARCH0382 S01 16932 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.

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.

Spr ARCH0530 S01 25378 MWF 11:00-11:50(04) (S. Alcock)


Avast ye scurvy dogs! Come study the barbarous buccaneers that roved the high seas of the Caribbean from the sixteenth to the eighteenth century: their daily lives and plundered goods, their ships and hideaways. We will explore the havoc piracy caused, and the legends left behind --
Blackbeard, Captain Morgan, and even Captain Jack Sparrow. Just as importantly, we will investigate the economics and geopolitics behind the rise of piracy, with an emphasis on the trans-Atlantic slave trade. Fall ARCH0676 S01 16824 MWF 2:00-2:50(07) (M. Reilly)

ARCH 0725. Great Migrations: Mobility, Displacement and Material Culture in the Ancient Mediterranean. Migrations are the stuff that (pre)history was made of. This course will track some of the largest and most momentous displacements and movements around the Mediterranean, from earliest prehistory to the Middle Ages. Not all migrations consisted of marauding hordes, so this course will run the gamut from pastoral mobility to island colonization. Fall ARCH0725 S01 16330 MWF 10:00-10:50(03) (P. van Dommelen)

ARCH 1052. Global Historical Archaeology (ANTH 1620). Interested students must register for ANTH 1620. Fall ARCH1052 S01 16858 Arranged ‘To Be Arranged’

ARCH 1128. The Last Fall of the Roman Empire (HIST 1030). Interested students must register for HIST 1030. Fall ARCH1128 S01 16415 Arranged ‘To Be Arranged’

ARCH 1150. Cities and Urban Spaces in the Ancient World. This course investigates ancient cities from a comparative perspective. Using contemporary approaches to cities and the production of urban space, we will explore side-by-side cities of the ancient Near Eastern and Mediterranean world, with comparisons drawn as well from other regions such as Mesoamerica. We will investigate how cities were planned in the past and their monumental architecture shaped, with a special focus on Egyptian case studies such as the productive prehistoric site of Tell el-Dab’a. WRIT Spr ARCH1150 S02 26074 TTh 2:30-3:50(11) (M. Mueller)

ARCH 1170. Community Archaeology in Providence and Beyond. Modern archaeology is about far more than just digging in the dirt. During this seminar, we will discuss how archaeologists can engage with the public—including collaborations with indigenous and local communities, increased multivocality in interpretations, the mass media, museums, educational outreach programs, and the use and abuse of the past by governments and others in power. The second half of this course will involve a hands-on project in the Providence public school system. Fall ARCH1170 S01 16580 TTh 10:30-11:50(10) (K. Harrington)

ARCH 1212. Charlemagne: Conquest, Empire, and the Making of the Middle Ages (HIST 1976Z). Interested students must register for HIST 1976Z. Fall ARCH1212 S01 16416 Arranged ‘To Be Arranged’

ARCH 1213. The Medieval Monastery (HIAA 1440B). Interested students must register for HIAA 1440B. Spr ARCH1213 S01 25597 Arranged ‘To Be Arranged’

ARCH 1283. Society and Population in Ancient Greece (CLAS 1130). Interested students must register for CLAS 1130. Fall ARCH1283 S01 16445 Arranged ‘To Be Arranged’

ARCH 1475. Petra: Ancient Wonder, Modern Challenge. The rose-red city of Petra in southern Jordan is a movie star (Indiana Jones and the Last Crusade). It is a tourist mega-hit (over half a million visitors annually). It was recently voted one of the New 7 Wonders of the World. This class will explore the history and archaeology of Petra and debate how best to present and preserve the site, as well as discussing (and planning!) Brown’s ongoing fieldwork at this beautiful, but fragile, place. Enrollment limited to 15. Not open to first or second year students. Fall ARCH1475 S01 16138 Th 4:00-6:30(02) (S. Alcock)

ARCH 1536. Archeological Ethnographies: Heritage and Community in the Mediterranean (ANTH 1126). Interested students must register for ANTH 1126. Fall ARCH1536 S01 16608 Arranged ‘To Be Arranged’

ARCH 1606. Imagining the Gods: Myths and Myth-making in Ancient Mesopotamia (AWAS 1100). Interested students must register for AWAS 1100. Spr ARCH1606 S01 25595 Arranged ‘To Be Arranged’

ARCH 1616. Between Sahara and Sea: North Africa from Human Origins to Islam. From the early stages of human evolution to the present, this course explores the deep past of North Africa. Rejecting the colonizing perspectives typical of the study of the region, we will study its indigenous peoples and their long-term relationships with the Mediterranean, the Near East, the Sahara and Tropical Africa. Students are encouraged to bring their own interests (art, music, literature, technology) to their experience of the class. WRIT Fall ARCH1616 S01 16849 TTh 1:00-2:20(10) (B. Kaufman)

ARCH 1635. The Great Heresy: Egypt in the Amarna Period. At the height of Egypt’s power in the New Kingdom, King Amenhotep IV initiated a religious revolution that affected all aspects of Egyptian high culture. Declaring the sun-disc, Aten, to be the sole god, this king changed his name to Akhenaten and moved the capital city to a new site at Amarna. Along with this move came massive shifts in everything from temple worship to art, international relations to funerary religion. This course will set the Amarna period in its context, examining remains from the reign before Akhenaten to the restoration of traditional Egyptian religion under his immediate successors, including King Tutankhamun. Enrollment limited to 50. Not open to graduate students. Spr ARCH1635 S01 25451 TTh 10:30-11:50(09) (L. Bestock)

ARCH 1705. The Palaces of Ancient Rome (HIAA 1301). Interested students must register for HIAA 1301. Fall ARCH1705 S01 16933 Arranged ‘To Be Arranged’

ARCH 1764. Under the Microscope: 250 Years of Brown’s Material Past. An archaeologist will tell you that to learn a university’s history, you must uncover and investigate its treasures, trash, tools and toys. An engineer will tell you that to understand such objects, you must study how these things were made, in what materials and with what technologies. This co-taught course unites these two disciplines for a unique exploration of Brown’s past, combining interdisciplinary discussions, hands-on laboratory work, and individual historical and material analysis of an artifact selected from 250 years of life on College Hill. Spr ARCH1764 S01 26075 M 3:30-5:30(13) (C. Briant)

ARCH 1835. Inventing the Past: Amulets, Heiroglyphs, Monuments, Landscapes. LONG before archaeology and art-history were academic disciplines, individuals and communities manipulated the physical traces of the past in order to imagine and explain their own antiquity. Who cared about these objects and why? What did pre-modern excavations, catalogues, and collections look like and what do they tell us about our own engagements with antiquities? This course delves into the origins of antiquarianism and archaeology, from pre-history to the Renaissance. Enrollment limited to 50. Spr ARCH1835 S01 25381 TTh 1:00-2:20(10) (F. Rojas Silva)

ARCH 1840. Ceramic Analysis for Archaeology. Ceramic remains allow 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. Registration limited to Archaeology and Egyptology concentrators. Others can enroll with permission of instructor, given on the first day of class. Fall ARCH1840 S01 16293 F 3:00-5:30(14) (L. Bestock)

ARCH 1882. Introduction to Geographic Information Systems for Environmental Applications (GEOL 1320). Interested students must register for GEOL 1320. Fall ARCH1882 S01 16419 Arranged ‘To Be Arranged’

ARCH 1900. The Archaeology of College Hill. A training class in field and laboratory techniques. Topics include the nature of field archaeology, excavation and survey methodologies, archaeological ethics, computer technologies (such as GIS), and site and artifact analysis and conservation. Students will act as practicing archaeologists through the investigation of local historical and archaeological sites in the College Hill area (e.g. the First Baptist Church of America and Brown University’s Quiet Green). Prerequisite: A previous

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
course in Archaeology and the Ancient World or Anthropology is required. Restricted to sophomores, juniors, and seniors, except by permission of the instructor. Enrollment limited to 15.

Fall ARCH1900 S01 16134 M 3:00-5:30(15) (A. Dufton)

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

Honors students in Archaeology and the Ancient World who are completing their theses should enroll in this course in their final semester. The subject of the thesis and program of study will be determined by the needs of the individual student. Section numbers vary by instructor.
Please check Banner for the correct section number and CRN to use when registering for this course.

Interested students must register for ANTH 2501.
Spr ARCH2006 S01 25620 Arranged 'To Be Arranged'

ARCH 2010B. Approaches to Archaeological Survey in the Old World.
Recent decades have witnessed a marked development of interest in regional approaches to the ancient world and its landscapes. This seminar will explore the history of this development, as well as survey’s impact on the work of both ancient historians and archaeologists. Topics to be covered include survey design and methodology, and the wider implications and lessons of regional analysis.

Fall ARCH2010BES01 16825 W 3:00-5:30(17) (J. Cherry)

ARCH 2020E. Economy and Trade in the Later Bronze Age Aegean and East Mediterranean.
Beginning with an examination of the workings of the Mycenaean palace economy, including the evidence of Linear B documents, this seminar will then turn to a more inclusive consideration of trade and exchange involving Aegean states and their counterparts further east, and of the nature and extent of cultural interaction between them during the later Bronze Age (ca. 1600-1100 BC).
Spr ARCH2020E S01 25928 T 4:00-6:30(16) (J. Cherry)

ARCH 2112. Roman Epigraphy (LATN 2120A).
Interested students must register for LATN 2120A.
Fall ARCH2112 S01 16279 Arranged 'To Be Arranged'

ARCH 2155. History, Anthropology, and Archaeology: Disciplinary Dialogues.
Archaeology has always occupied an uneasy space between the fields of anthropology and history. This seminar examines the interplay of theories and methods in all three spheres of scholarship, with an emphasis on current inter- and trans-disciplinary research. Several fundamental 20th century dialogues between anthropologists and historians will be reviewed, and key topics in contemporary archaeology explored in relation to those debates.

Fall ARCH2155 S01 16929 Th 4:00-6:30(0) (J. Osborne)

ARCH 2157. Subaltern Communities: Archaeological Perspectives Beyond Domination and Resistance.
Mediterranean (pre)history is usually cast in terms of an inexorable rise of state domination and colonial exploitation under the euphemistic label of ‘social complexity’. This seminar will examine and highlight the role of ‘people without history’ not by simply pitching them as rebels against dominant powers but by exploring the subtle and manifold connections that interweave subaltern communities with hegemonic groups.
Spr ARCH2157 S01 26087 W 3:00-5:30(14) (P. van Dommelen)

ARCH 2320. Household Archaeology in the Ancient Near East and Beyond.
House, home, household, family: defining these terms is not as easy as it might seem, especially across space and through time. After introducing the principles of household archaeology, this class will explore the state of this growing archaeological subfield in the Near East and eastern Mediterranean. We will also draw on developments in New World archaeology in analyzing the potential and problems of household archaeology and in articulating its future directions.

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. LILE Fall BIOL0300 S01 14468 MW 8:30-9:50(16) (M. Flynn)

BIOL 0800. 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 biomedical industry. Not for biology concentration credit. Students MUST register for the lecture section and the conference. Enrollment limited to 20.
Spr BIOL0800 S01 24140 T 4:00-6:30(16) (B. Bready)

BIOL 0140A. Topics in Science Communications: Science Journalism Practicum.
Participants will understand how to read scientific research papers to interpret their findings and communicate these to a broader lay audience; analyze and understand best practices in science writing and the challenges of covering science for mass media; interviewing; fair and balanced coverage in reporting; give and receive peer feedback. Not for concentration credit in Biological Sciences programs. Enrollment limited to 10. Instructor permission required. S/N/C
Biological Sciences

BIOL 0140A. Communicating Science: Animating Science.
Taught by RISD/Brown professors with the Science Ctr and Creative Mind Initiative, this course explores the pedagogy of using visual media to convey scientific concepts. The goal is to assess the students' ability to create compelling scientific animations that can be shared with the public. This experience is of interest to pre-med, general biology and environmental studies concentrators seeking interdisciplinary learning classroom experience. The course should be of interest to pre-med, general biology and environmental studies concentrators seeking interdisciplinary learning classroom experience. This will satisfy "Area 3" organizational biology concentration requirement for Biology/Health-Human Biology. Expected background: BIOL 0200 or equivalent placement. Enrollment limited to 15 sophomores. Instructor permission required. SOPH

BIOL 0140K. Conservation Medicine.
How have fruit bats contributed to the emergence of Nipah virus in Malaysia? Is an infectious cancer going to drive the Tasmanian Devil to extinction? Will a warmer world be a sicker world? We will consider these and additional topics at the intersection of global change biology and infectious disease emergence in this course. The course should be of interest to pre-med, general biology and environmental studies concentrators seeking interdisciplinary learning classroom experience. This will satisfy "Area 3" organizational biology concentration requirement for Biology/Health-Human Biology. Expected background: BIOL 0200 or equivalent placement. Enrollment limited to 15 sophomores. Instructor permission required. SOPH

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

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

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 proficiency in basic cell culture techniques, early stage tissue regeneration strategies and histochemical characterization of mammalian cell constructs. Enrollment limited to 10 first year students. Instructor permission required. Half-credit course. S/NC. FYS

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 prosthetics and transplantation; medical imaging; tissue engineering, therapeutic cloning, regenerative medicine; stem cells; societal, economic, and ethical issues. This course does not carry Biology concentration credit.

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

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

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 break, and are annotated in the spring. One hour 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 20 freshmen. FYS

BIOL 0190S. Phage Hunters, Part II
A research-based laboratory/class for freshmen; both semesters are required. Students will isolate and characterize a bacteriophage viruses found in the soil. Lab work includes isolation and purification of your own phage, DNA isolation and restriction mapping, and EM characterization of your phage. Several phages will be selected for genome sequencing over winter break, and 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 20 first-year students. Instructor permission. FYS

This course presents an integrated account of development, structure and function in plants, especially seed plants. Enrollment limited to 20 first year students. FYS

BIOL 0200. The Foundation of Living Systems.
A broad overview of biological systems, emphasizing patterns and processes that form the basis of life. Explores essentials of biochemistry, molecular, and cellular biology and their relationship to the larger issues of ecology, evolution, and development. Examines current research trends in biology and their influence on culture. Appropriate for all students interested in biology. Serves as a gateway course to much of the intermediate and advanced curriculum. Placement tests are offered (contact Jody_Hall@brown.edu); AP scores of 4 or 5 are equivalent to BIOL 0200, and place a student out of this course. Students will be assigned to a lab section during the second week of class. LILE
BIOL 0200. Diversity of Life.
The course will explore biological diversity—the number of taxa, and the functions, and processes that support life—from the perspectives of ecology and evolutionary biology. It will draw on examples and case studies from the geological record, functional morphology, the evolution of organ systems in vertebrates, genomics, behavior and sexual selection in birds and invertebrates. Overarching themes will emphasize that taxonomic diversity is an emergent property of complex life on Earth, and the importance of diversity of biological functions and processes in generating and maintaining taxonomic diversity. Class Restriction: Freshmen and sophomores; others by instructor permission.

Fall BIOL0210 S01 15499 MWF 11:00-11:50(04) (J. Kellner)

BIOL 0280. Introductory Biochemistry.
Lectures and recitation sections explore the mechanisms involved in the principles of macromolecular structure and function, the organization and regulation of pathways for intermediary metabolism, and the transfer of information from genes to proteins. It is expected that students have taken CHEM 0350 or are taking it concurrently.

Spr BIOL0280 S01 23059 TTh 1:00-2:20(16) (G. Jogli)

It is generally difficult to rigorously study evolution by natural selection because it acts across thousands of generations and in varying environments. Studying laboratory populations of short-lived organisms overcomes both challenges. This course will survey the field of experimental evolution, develop and apply ecological and evolutionary theory, and interpret and synthesize the peer-reviewed literature. Students will evolve bacteria to increased environmental stress resistance in complementary labs. Evaluation will be based on participation, student-led discussion, weekly written assignments, a midterm and final. Expected: BIOL 0200 or equivalent. Enrollment limited to 25 first-year students and sophomores. Instructor permission required. LILE

Fall BIOL0370 S01 15941 MWF 9:00-9:50(16) (D. Weinreich)

Many questions about the workings of living creatures can be answered by joining math, physics, and biology. We will identify basic physical science concepts that help biologists understand the structure and function of animals, plants, and microorganisms, and use these to study how the physical world constrains and facilitates the evolution of the extraordinary design and diversity of organisms. For first and second year students; others by permission. Recommended background: BIOL 0200, or equivalent. Enrollment limited to 40. Instructor permission required.

WRIT
Fall BIOL0400 S01 14481 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 14482 MWF 11:00-11:50(04) (S. Siebert)

Course examines the diversity of microbial life in the environment. Surveys key services that microbes perform on land and sea, including biodegradation of contaminants in the environment and ecosystem processes related to climate change. Examines biological interactions of symbioses, quorum sensing, and antibiotic production in a ecological context. Explores the genomic mechanisms explaining phylogeny and life history strategies in microbes. Demonstrate knowledge of the diversity of microbes in the environment and benefits in an ecological and evolutionary context. Lecture based, two fieldtrips to expand appreciation for microbial ecology. BIOL 0200 or equivalent placement; CHEM 0330. Enrollment limited to 20 sophomores. WRIT

Spr BIOL0415 S01 23871 MWF 9:00-9:50(02) (J. Rich)

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 0090. Lectures and weekly discussion.

Spr BIOL0420 S01 23872 TTh 9:00-10:20(08) (J. Witman)

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

Fall BIOL0430 S01 14803 TTh 9:00-10:20(06) (T. Whitfeld)

BIOL 0470. Genetics.
Genetic phenomena at the molecular, cellular, organismal, and population levels. Topics include transmission of genes and chromosomes, mutation, structure and regulation of the expression of the genetic material, elements of genetic engineering, and evolutionary genetics. One laboratory session and one discussion session per week. (Students should not plan to take BIOL 0470 after 1540.) Expected: BIOL 0200 (or equivalent placement). Students will be assigned to Lab sections the first week of class.

Fall BIOL0470 S01 14484 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 14506 MWF 9:00-9:50(16) (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 10 sophomores, and 10 for seniors requiring permission of instructor.

Spr BIOL0495 S01 23876 TTh 2:30-3:50(17) (S. Ramachandran)

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

Spr BIOL0500 S01 23879 MW 8:30-9:50(02) (R. Freiman)

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 and their genes. Expected: BIOL 0200 (or equivalent placement); CHEM 0330. Students MUST register for the lecture section and the lab. Enrollment limited to 108.

Spr BIOL0510 S01 23880 MWF 1:00-1:50(06) (R. Bennett)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 14507 TTh 2:30-3:50(11) (R. Bungiro)

BIOL 0800. Principles of Physiology.
Introduction to the function and integration of organ systems with an emphasis on human physiology. Includes basic concepts in cell and organ system physiology as well as fundamentals of modern trends in physiological science. Emphasizes the application of physical and chemical principles to organ function at both the cellular and systemic levels. Expected: BIOL 0200 or equivalent.
Fall BIOL0800 S01 14508 TTh 10:30-11:50(13) (J. Stein)
Spr BIOL0800 S01 23882 MWF 10:00-10:50(03) (C. Hai)

BIOL 0860. Diet and Chronic Disease.
This course addresses the relationship of food to the development and treatment of chronic diseases. Chronic diseases discussed are obesity, dyslipidemia/heart disease, diabetes mellitus, cancers and osteoporosis. Dietary recommendations for these diseases are critically assessed. Geared toward students interested in nutrition, medicine, and public health. Prerequisites: BIOL 0030 and 0800, plus permission of the instructor. Enrollment limited to 20.
Fall BIOL0860 S01 24308 T 4:00-6:30(16) (M. Flynn)

BIOL 0920A. Controversies in Medicine.
Why and how do controversies in medicine emerge at specific moments in time? Why do scientists come to different conclusions based on the same data? Does it matter how we interpret controversies? This sophomore-level seminar critically analyzes controversies in medicine and public health. Using a case study approach, we will examine the social and political assumptions that inform important controversies. Questions related to the relationship between science, media, activism, and health inequality will be woven into the case studies. Enrollment limited to 20 sophomores. (For theme, not biology, credit in Health and Human Health and Biology only,) SOPH
Spr BIOL0920A S01 25769 Th 4:00-6:30(17) (L. Braun)

BIOL 0940A. Viral Epidemics.
This sophomore seminar will examine epidemics (outbreaks) of viral infections from a historical perspective. We will also cover current literature and up to the minute news accounts of infectious disease related outbreaks occurring around the globe. The major focus will be on virus related diseases but any microbial outbreak in the news will be explored. The seminar will cover basic aspects of microbial pathogenesis so students can gain an appreciation of microbial host interactions. Essential writing skills will also be developed. Enrollment limited to 20 sophomore students. WRIT SOPH
Fall BIOL0940A S01 14515 Th 4:00-6:30(02) (W. Atwood)

BIOL 0940B. Sophomore Seminars in Biology: Life in a Shell.
This Sophomore seminar is an examination of broad themes in whole animal physiology with an emphasis on environmental adaptations. The foundation of the course will be the instructor’s recent book “Life in a Shell: A Physiologist’s View of Turtle.” A consideration of this iconic animal’s novel biological traits will lead into comparisons with our own biology and that of other animals. Topics: respiration, circulation, metabolic rate, buoyancy control, overwintering, migration, reproduction, and bone structure and function. Relevant original research papers will be used. Mandatory S/NC; enrollment of 20 students; override required. Expected: BIOL 0200 or equivalent placement credit. SOPH
Fall BIOL0940B S01 14558 T 4:00-6:30(18) (D. Jackson)

BIOL 0940C. Sophomore Seminar: Insect Biology.
Focuses on characteristics that make insects unique and why more insect species have been described than all other organisms combined; the opportunity to investigate diversity and adaptation; their abundance, small size, and short lifespans; their importance as agents of biocontrol pollination, agricultural pests, and disease vectors. Expected: BIOL 0200 or equivalent. Enrollment limited to 12 sophomores only. Students MUST register for lecture AND lab. SOPH
Spr BIOL0940C S01 25641 TTh 1:00-3:50(10) (D. Morse)

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

BIOL 1050. Biology of the Eukaryotic Cell.
Examines organelles and macromolecular complexes of eukaryotic cells with respect to structural and functional roles in major cellular activities. Emphasizes experimental basis for knowledge in modern cell biology using original literature, and discusses validity of current concepts. For advanced undergraduates and beginning graduate students. Complementary to BIOL 1270 and 1540. Prerequisites: BIOL 0280, 0470, 0500, or instructor permission. Graduate students register for BIOL 2050.
Fall BIOL1050 S01 14516 TTh 1:00-2:20(10) (K. Miller)

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, and for theme course credit in Health and Human Biology programs. Enrollment limited to 20. Instructor permission required.
Fall BIOL1070 S01 14518 TTh 4:00-5:20(17) (J. Schell)

BIOL 1090. Polymer Science for Biomaterials.
Basic principles of polymer science and its application in medicine. Topics include basic polymerization chemistry, kinetics of polymerization and depolymerization with emphasis on biodegradable polymers, characterization of polymers by physical methods, bulk and surface properties, behavior of polymers in solutions, crystallization, gelation, and liquid crystals. Hands-on experience with polymer characterization. Expected: CHEM 0350. Enrollment limited to 40.
Fall BIOL1090 S01 14519 T 1:00-3:50(10) (E. Mathiowetz)

BIOL 1100. Cell Physiology and Biophysics.
Current topics in cell physiology, with an emphasis on membrane-mediated interactions between cells and their environment. Topics may include: ion channel structure, function and regulation; intracellular regulatory molecules; mechanisms of sensory transduction; membrane receptors and second messenger systems; vesicle secretion; and cytoskeletal regulation of cell function. Lectures, discussion, and student presentations of the current literature. Expected: BIOL 0800 or NEUR 0010. Instructor permission required. Registration overrides will not be given out until after the first one or two classes. Enrollment limited to 30, and permission is based on seniority – graduate students, seniors, then juniors (realistically, first and second-year undergrads have almost no chance of admission). A signup sheet will be passed around on the first day of class.
Spr BIOL1100 S01 23889 F 3:00-5:30(15) (A. Zimmerman)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 14522 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 25119 MWF 12:00-12:50(05) (B. Zielinski-Habershaw)

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 14523 Th 3:00-5:20(02) (D. Hoffman-Kim)

BIOL 1150. Stem Cell Engineering

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

Spr BIOL1150 S01 23891 Th 3:00-5:20(17) (E. Darling)

BIOL 1160. Principles of Exercise Physiology.

Application of the basic principles of physiology to the study of the response mechanisms of the human body during exercise. Topics include muscle and neural control, 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 14604 MWF 1:00-1:50(06) (C. Hai)

BIOL 1190. Synaptic Transmission and Plasticity.

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

Fall BIOL1190 S01 14526 Th 1:00-2:20(10) (J. Kauer)

BIOL 1210. Synthetic Biological Systems.

A multidisciplinary course that combines science and engineering providing a solid foundation in a cutting edge field of biological engineering. Synthetic biology is a mixture of biology, chemistry, engineering, genetic engineering and biophysics. It builds on recent work in systems biology which involves the modeling of biological systems, but goes further in that it involves the construction and standardization of biological parts, that fit together to form more complex systems. Expected: at least four courses beyond BIOL 0200, CHEM 0330, PHYS 0300, ENGN 0300, MATH 0900, or CSCI 0040.

Fall BIOL1210 S01 14618 M 3:00-5:30(17) (G. Wessel)

BIOL 1260. Physiological Pharmacology.

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

Fall BIOL1260 S01 14525 TTh 10:30-11:50(13) (J. Marshall)

BIOL 1270. Advanced Biochemistry.

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

Fall BIOL1270 S01 14527 Th 2:30-3:50(11) (R. Page)

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 15459 M 3:00-5:30(15) (F. 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.

Fall BIOL1310 S01 14529 TTh 9:00-10:20(08) (K. Wharton)


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 25729 M 3:00-5:30(13) (G. Wessel)

BIOL 1440. Marine Biology.

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

Spr BIOL1440 S01 23901 Arranged (M. Bertness)

BIOL 1465. Human Population Genomics.

An introduction to human genetics and the evolutionary forces that shape observed genetic variation across humans today. Topics will include the relationship among humans and other primates, human population genetics and genomics, and examples of the concomitant evolution of both cultural traits and domesticated organisms. Assignments
include a class presentation and reviewing papers on a selected topic. Expected background: BIOL 0470 or 0480, and BIOL 0485, PHY 2500, or equivalent. Enrollment limited to 25. Instructor permission required. WRIT
Fall BIOL1456 S01 14605 TTh 1:00-2:20(10) (S. Ramachandran)

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 15460 TTh 9:00-10:20(08) (C. Hitchcock)

BIOL 1480. Terrestrial Biogeochemistry and the Functioning of Ecosystems
Three fundamental multidisciplinary questions will be addressed: How do ecosystems work? What limits the growth of life on Earth? How are humans altering the framework in which all life exists? Earth is basically a closed chemical system, and the reactions that support life are fueled by sunlight. But added to this chemistry and physics is the tremendous influence of life. Life created an oxygen atmosphere; the evolution of biological nitrogen fixation exponentially increased how many organisms could exist, and the soils that support human food production developed only by biologically-mediated processes. Throughout Earth’s 4.5 billion-year history changes in Earth’s basic biogeochemical processes have been fairly slow. Under our inattentive stewardship, we have almost instantaneously altered all of the major element cycles. We will focus heavily on what these changes mean for life on Earth. Instructor permission required.
Fall BIOL1480 S01 14617 MWF 10:00-10:50(03) (P. Porder)

BIOL 1485. Climate Change Health and Ecology
Explore the linkages between climate change and health. Students will come to appreciate the topic through the foundations of the primary disciplines relevant to the field including global health, environmental change, disease ecology, and others. Climate-health linkages will be learned through weekly case studies addressed collectively through student-centered lectures, discussion of the primary literature, groups activities and guest lectures from campus faculty on topics ranging from climate migration to infectious disease range shifts. Expected background: BIOL 0475, or BIOL 1470, or PHY 1070, or PHY 1920, or equivalent experience with instructor’s permission. Enrollment limited to 12 juniors and seniors.
Fall BIOL1485 S01 14557 M 1:00-4:00(06) (K. Smith)

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 14608 MW 8:30-9:50(16) (L. Brossay)

BIOL 1540. Molecular Genetics
Covers advanced genetic and molecular methods and their use in analysis of complex biological phenomena such as development, signaling, behavior, and disease. Discusses how these techniques are applied in various organisms, with emphasis on the major Eukaryotic genetic model systems (Drosophila, nematodes, mouse, yeast, Arabidopsis) and on human genetics. Uses primary literature to analyze the design of forward- and reverse–genetic approaches to discover novel gene function. For advanced undergraduates and beginning graduate students. Prerequisite for undergraduates: BIOL 0470 or instructor permission. Expected background: any of BIOL 0280, 0500, 1050, or 1310. Graduate students should register for BIOL 2540.
Spr BIOL1540 S01 23907 TTh 2:30-3:50(11) (E. Lannigan)

BIOL 1550. Biology of Emerging Microbial Diseases
Emerging diseases influence the health of human populations in less developed countries and are expected to have similar effects worldwide. Rising incidence of "new" diseases underscores the need for knowledge of infection mechanisms and their outcomes. Focuses on biochemical, genetic, cellular and immunological events of emerging pathogens and host responses. Expected: BIOL 0470 or BIOL 0530.
Spr BIOL1550 S01 23909 MWF 1:00-1:50(08) (A. Campbell)

BIOL 1560. Virolology
Emphasizes the understanding of molecular mechanisms of viral pathogenesis. Begins with a general introduction to the field of virology and then focuses on the molecular biology of specific viruses that are associated with human disease. Lectures based on current literature. Prerequisite: BIOL 0280, 0470, or 0530, or instructor permission.
Spr BIOL1560 S01 23910 MWF 9:00-9:50(02) (A. Jamieson)

BIOL 1600. Development of Vaccines to Infectious Diseases
Provides background on steps involved in vaccine development, from conceptualization to production to immunization. Considers infectious diseases and their associated vaccines in the context of community health. Appropriate for any student wanting to gain an understanding of basic science, and also provides a foundation for other advanced courses in immunology and infectious disease, biomedical research, or medical/graduate studies. Activities include an in–class presentation and a research paper on a topic chosen by the student. Expected: BIOL 0200 or equivalent placement; BIOL 530, and at least one additional biology course.
Spr BIOL1600 S01 23911 W 3:00-5:30(13) (R. Bungiro)
Spr BIOL1600 S01 23911 M 3:00-5:30(13) (R. Bungiro)

BIOL 1800. Animal Locomotion
How and why do animals run, jump, swim and fly? Physiology, anatomy, ecology, and evolutionary history all influence, and are influenced by, the way animals move around. We will integrate analyses from many levels of biological organization - from molecular motors, through bone-muscle systems, to biogeography - with methods and approaches from mechanics, fluid dynamics, and robotics. Expected: BIOL 0800 and PHYS 0030. Instructor permission required. WRIT
Spr BIOL1800 S01 23912 TTh 10:30-11:50(09) (S. Swartz)

BIOL 1820. Environmental Health and Disease
Fundamental concepts relating to the adverse effects of chemical agents on human health. Topics include dose-response relationships, absorption, distribution, metabolism, excretion, mechanisms of toxicity, and the effects of selected environmental toxicants on organ systems. Many of these concepts will be reinforced through the use of a case-study approach where a pertinent environmental issue is incorporated into the ongoing lectures. Expected: BIOL 0500 and BIOL 0800, plus either ENVS 0490 or BIOL 0420.

BIOL 1870. Techniques in Pathobiology
A methodology course featuring laboratory and lecture instruction in established and leading-edge technologies. Examples: flow cytometry (multi-parameter analysis, cell sorting, DNA analysis, apoptosis analysis); molecular biology (PCR, in situ hybridization, southern blotting, cytogenetics, gene cloning, bioinformatics); digital imaging (image acquisition, processing and analysis); light microscopy (confocal, immunohistochemistry); transmission electron microscopy (immunolabelling/ enzyme cytochemistry); scanning electron microscopy (including x-ray microanalysis).
Spr BIOL1870 S01 23914 TTh 1:00-3:50(10) (C. Jackson)

BIOL 1880. Comparative Biology of the Vertebrates
The biology, structure, and evolutionary history of the vertebrates considered phylogenetically, emphasizing evolution of the major body systems. Stresses an evolutionary approach to the correlation of structure and function with environment and mode of life. Labs include dissection of several different vertebrates and comparative osteological material. Emphasis of course is on critical thinking rather than memorization of material. Recommended: BIOL 0320 or 0800. First year students must
obtain instructor permission to register. Enrollment limited to 32. Students MUST register for the lecture section and the lab.
Spr BIOL1880 S01 23916 MWF 11:00-11:50(04) (N. Konow)

BIOL 1890. Human Histology.
This course will provide an in-depth treatment of the "stuff we are made of" and the wonderful logic of its organization. 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. For Pfizer students only.
Fall BIOL1890 S01 16581 W 3:30-6:30(17) (A. Amin)

BIOL 1900B. 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. Examine 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 Chicano heatwave, and Katrina. BIOL 0200 and work in Africana Studies and/or science-technology courses preferred. Not for biology concentration credit.
Fall BIOL1900B S01 14787 Th 4:00-6:30(30) (L. Braun)

BIOL 1920C. Social Contexts of Disease.
What shapes our understandings of disease, and what makes a disease real? How might we explain the demise of formerly prevalent diseases and the arrival of others? How do politics, technologies, and institutions affect conceptions of disease and structure their treatment? Will examine the impact of social context on patients' experiences of disease, including clinical, scientific, and public health approaches. Will consider disease in relation to social relationships, power of the state to regulate disease, and cultural care of the body. Enrollment limited to 20 students; instructor permission required; serves as Capstone in Health and Human Biology.
Fall BIOL1920C S01 14537 M 1:00-3:20(06) (D. Weinstein)

BIOL 1940O. Vertebrate Paleobiology in the Context of Changing Global Environments.
The earth as we know it today has not been a stable place for the organisms that inhabit it. Not only have continents shifted in position, resulting in changing global temperatures (with encroaching and retreating ice ages), but the composition of atmospheric gases has also fluctuated. This seminar will look at the pattern of vertebrate evolution in the context of how certain key events may have been influenced by changes in the global environment. Expected background: BIOL 0390 or 1880. Limited to 10 students. Instructor permission required.
Fall BIOL1940O S01 16866 Arrange (C. Janis)

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. Information on specific opportunities with BioMed faculty is found in an online research database maintained at biology.brown.edu/bug/pages/research.html.
Basic science projects are suited for Biological Sciences programs; clinical, behavioral, and human subject-based projects for Health/Human Biology programs, along with opportunities for projects dealing with social studies of biological science and health.
Projects can serve as the basis for Honors theses, or to fulfill research requirements in a Bio-Med concentration program; non-concentrators are also welcome. The Honors process is described here: Biology.brown.edu/bug/honors
(Note: Faculty from outside the Division may supervise projects, with advisor's approval, for bio-med program concentrators, but should do so using their Department's own Independent Study course number.)
REGISTRATION requires an agreement and research plan between faculty mentor and student, including a formal, written proposal. The proposal (available at the site biology.brown.edu/bug/ugres) must be submitted to Dean Katherine Smith (Rm. 124 Arnold) for review and approval, then an override for registration is issued to the student.
Most students do not preregister, but add this course at the start of the semester of the planned project. Required: A completed proposal form, sponsor's and concentration advisor's approval.
No more than two (2) semesters of BIOL 1950/1960 may be used toward a concentration program in the biological sciences.

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. Information on specific opportunities with BioMed faculty is found in an online research database maintained at biology.brown.edu/bug/pages/research.html.
Basic science projects are suited for Biological Sciences programs; clinical, behavioral, and human subject-based projects for Health/Human Biology programs, along with opportunities for projects dealing with social studies of biological science and health.
Projects can serve as the basis for Honors theses, or to fulfill research requirements in a Bio-Med concentration program; non-concentrators are also welcome. The Honors process is described here: Biology.brown.edu/bug/honors
(Note: Faculty from outside the Division may supervise projects, with advisor's approval, for bio-med program concentrators, but should do so using their Department's own Independent Study course number.)
REGISTRATION requires an agreement and research plan between faculty mentor and student, including a formal, written proposal. The proposal (available at the site biology.brown.edu/bug/ugres) must be submitted to Dean Katherine Smith (Rm. 124 Arnold) for review and approval, then an override for registration is issued to the student.
Most students do not preregister, but add this course at the start of the semester of the planned project. Required: A completed proposal form, sponsor's and concentration advisor's approval.
No more than two (2) semesters of BIOL 1950/1960 may be used toward a concentration program in the biological sciences.

BIOL 1970A. Stem Cell Biology.
This 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-presentations, papers and ethical forums. Expected background: biochemistry, genetics and/or cell biology.
Fall BIOL1970A S01 16834 M 2:00-4:30(07) (R. Freeiman)

BIOL 2000C. Molecular Recognition and Signaling in Self and Non-self Interactions.
This course will cover cell signaling mechanisms that allow discrimination between self and non-self interactions in various biological contexts. Self/non-self signaling pathways from several model systems will be examined and their relevance to development and defense will be considered. Topics will include signaling in intra- and inter-species reproductive interactions, signaling in the establishment of symbioses, signaling upon predator attack, signaling in pathogen interactions, and co-evolution of pathogenic and resistance effectors. After one introductory lecture/discussion session led by the instructors, the remaining class meetings will be student led. Graduate course; open to senior undergraduates with appropriate prior coursework. Instructor permission required.
Spr BIOL2000C S01 25673 Arrange (A. DeLong)

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. Enrollment limited to 20 graduate students. Advanced undergraduates with appropriate course preparation and permission from instructor.  

Fall BIOL2000E S01 16926 F 12:00-3:00 (W. Fairbrother)  
**BIOL 2000F. From Kinases to Chromatin: How Cells Respond to Their Environment.**  
This course introduces various aspects of molecular biology and biochemistry involved in cellular signaling pathways that regulate disease. Topics include kinases, apoptosis, cancer, epigenetics, stem cells, and transcription. Advanced undergraduates with instructor permission.  
Spr BIOL2000F S01 25905 Arranged (A. Salomon)  

**BIOL 2010. Quantitative Approaches to Biology.**  
Graduate level introduction to quantitative and computational methods in modern biology. Topics include Programming, Modeling, Algorithms, Bioinformatics, Applied Statistics, Structural Biology, Molecular Dynamics, Enzyme Kinetics, and Population and Quantitative Human Genetics. Preference is given to graduate students in Molecular Biology, Cell Biology and Biochemistry and Molecular Pharmacology, Physiology, and Biotechnology. Limited to 20 students. Instructor permission required.  
Spr BIOL2010 S01 23920 WF 2:00-5:00(07) (N. Neretti)  

**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). Discussion section is required. Required for PhD students in the MCB Graduate Program; all others must obtain instructor permission. Enrollment is limited to graduate students.  
Fall BIOL2030 S01 14538 MTTh 9:00-10:20(03) (A. DeLong)  
Fall BIOL2030 S01 14538 F 10:00-11:35(03) (A. DeLong)  

**BIOL 2050. Biology of the Eukaryotic Cell.**  
(Undergraduate students should register for BIOL 1050.)  
Fall BIOL2050 S01 14609 THh 1:00-2:20(10) (K. Miller)  

**BIOL 2110. Drug and Gene Delivery.**  
Topics in drug delivery systems including history of the field, advantages of controlled release technology, stabilization and release of proteins, fabrication methods, regulatory considerations, economic aspects, patents and intellectual property rights, and more. Prepares students for research in industry and academia, and offers information for consultants in the field. Expected: BIOL 1090, 1120; CHEM 0350, 0360.  
Fall BIOL2110 S01 14540 M 3:00-5:30(15) (E. Mathiowitz)  

**BIOL 2135. Pharmacokinetics and Drug Design.**  
Consists of the absorption, distribution, metabolism, and elimination of drugs. These factors, including dosage, determine the concentration of drugs at its sites of action, and intensity of effects. Will examine models describing the relationship between plasma drug concentrations and therapeutic drug effect. Will acquire biologic sampling techniques, analytic methods for measurement of drugs and metabolites, and procedures facilitating data used in designing drugs and dosage regimens. Prerequisite: BIOL 0800 or equivalent. Enrollment limited to 20. Preference given to graduate students in Biotechnology and BME, especially Masters students. Graduate students (PhD and ScM) from other programs enroll if permission of instructor is granted.  
Spr BIOL2135 S01 23921 W 1:00-3:20(06) (K. Harrett)  

**BIOL 2140. Principles in Experimental Surgery.**  
An introduction to the principles and practice of surgery, sterile technique, anesthesia, and laboratory animal care. Intended to provide highly supervised, hands-on experience in techniques for humane handling and surgical management of experimental animal subjects. Emphasizes surgical technique, anesthesia technique, and laboratory animal medicine. Prerequisite: BIOL 0800. Limited to five (5) Graduate students only. Instructor permission required. Students MUST register for the lecture section and the lab.  
Spr BIOL2140 S01 23922 T 4:00-6:30(16) (J. Harper)  

**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.  
Spr BIOL2145 S01 23923 T 9:00-11:20 (D. Horrigan)  

**BIOL 2150. Scientific Communication.**  
Focused on the effective dissemination of scientific information. Through practical examples of activities common to the profession (writing a grant proposal, presenting research work orally, and preparing a critical review of a submitted scientific manuscript), students will develop the skills necessary to effectively communicate scientific ideas, experiments and results. Each of the activities will be dissected into key sets that will be individually developed with the aid of interactive discussions and peer review. Enrollment limited to 12 graduate students.  
Fall BIOL2150 S01 14543 F 12:00-3:00(12) (E. Larchan)  

**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.  
Fall BIOL2156 S01 16924 Arranged (E. Mathiowitz)  
Spr BIOL2156 S01 23925 Arranged (E. Mathiowitz)  

**BIOL 2160. Analytical Methods in Biotechnology.**  
This course will cover principles and practical applications of important analytical tools used in the field of Biotechnology. Topics covered include spectrophotometry, chromatography, and physical and chemical methods of characterization of a variety of molecules used for therapeutic applications. The molecules will range in size from traditional drugs with molecular weights of less than 1000, peptides and proteins as well as siRNA and industrial polymers. This course is suitable for students intending on pursuing a career in biomedical research in academia or industry. Prerequisites: BIOL 0280, BIOL 1120, CHEM 0350/0360, or equivalent course. Enrollment limited to 20 Masters students in Biotechnology and BME.  
Spr BIOL2160 S01 23926 Th 9:00-11:50(02) (A. Comeau)  

**BIOL 2167. In Vivo Models for Disease.**  
This course will use case studies to examine high burden diseases, their pathobiology, 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 24361 T 1:00-3:20(10) (J. Schell)  

**BIOL 2170. Molecular Pharmacology and Physiology.**  
Fundamental concepts in pharmacology and physiology of the cellular/ molecular level to organ systems. Required of first-year graduate students in Molecular Pharmacology and Physiology.  
Fall BIOL2170 S01 14545 MWF 10:00-11:30(03) (J. Harrigan)  

**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.
program faculty. Students present research seminars and participate in biology, and cellular therapy, as well as the research projects directed by others. Concepts of drug delivery and tissue engineering, implantation biology, and cellular therapy, as well as the research projects directed by program faculty. Students present research seminars and participate in presentations by outside speakers. Includes Journal Club activities. Open to graduate students only.

BIOL 2440. Biomedical Engineering and Biotechnology Seminar. See Biomedical Engineering and Biotechnology Seminar (BIOL 2230) for course description.

BIOL 2260. Pathological Pharmacology. The objective of this course is to present drugs in the context of the diseases they are used to treat. A list of the Common medically prescribed drugs will be discussed in terms of their fundamental modes of action and clinical importance. Pertinent background biochemistry, physiology, and pathology is provided, e.g., the electrophysiology of the heart is discussed as a background to anti-arrhythmic drugs. Course is relevant for students interested in medicine journalism, law, government, precollege teaching, biomedical research, and pharmacy. Expected: background in physiology. For graduate students ONLY register for BIOL 2260 (enrollment limit 15); all others BIOL 1260.

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

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: BIOL2020 (or equivalent), and one course in genetics, embryology, cell biology or molecular biology. Enrollment limited to 36. (Undergraduate students register for BIOL 1310.)

BIOL 2340. Neurogenetics and Disease. Genetic mutations provide a powerful approach to dissect complex biologic problems. We will focus on fascinating discoveries from "forward genetic" studies – moving from nervous system phenotype to genetic mutation discovery. There will be an emphasis of neurologic disease phenotypes and the use of novel genomic methods to elucidate the central molecular and cellular causes for these conditions. The course will emphasize the use of "reverse genetics" – engineered mutations in model systems – to dissect nervous system function and disease mechanisms. Disorders to be covered include autism, intellectual disability, schizophrenia, epilepsy. Enrollment limited to 20. Instructor permission required.

BIOL 2350. The Biology of Aging. Studying the mechanisms underlying the process of aging promises to be one of the next frontiers in biomedical science. Understanding the biology of aging is important for the long-term possibility of increasing life span, and for the immediate benefits it will have on age-related diseases. As demographics of industrialized countries have changed, age-related diseases such as cancer/cardiovascular/stroke, osteoporosis/arthritis/Alzheimer’s have assumed epidemic proportions. Understanding the aging process is a pre-requisite for designing interventions for treatment. Focus is on examining the biology of aging through the examination of a molecular/ cellular/genetic and demographic nature. Suggested prerequisites: BIOL 0200, 0280, 0470, 0800. Enrollment limited to 20. Advanced undergraduates with permission of instructor.

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.

BIOL 2440. Topics in Ecology and Evolutionary Biology. See Topics In Ecology And Evolutionary Biology (BIOL 2430) for course description.

BIOL 2450. Exchange Scholar Program.

BIOL 2540. Molecular Genetics. (Undergraduate students should register for BIOL 1540.)

BIOL 2860. Molecular Mechanisms of Disease. This course is designed for Pathobiology Graduate Program students and requires an understanding of modern biochemistry and cell and molecular biology. Topics include cell injury and adaptation, inflammation, wound healing, thrombosis and vascular disease, carcinogenesis and environmental toxicology. Wilson’s disease will be a focus of discussion throughout the course. Both research articles and a text will be used. Practical sessions will be scheduled to introduce various laboratory tools, including microscopy. The course will emphasize the development of presentation skills and research design, in the context of the tools and knowledge base critical to modern interdisciplinary research into mechanisms of disease. Undergraduates require instructor permission.

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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
BIOL 2980. Graduate Independent Study.
Independent study projects at the graduate level. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

BIOL 2985. Graduate Seminar.
Section numbers vary by instructor. Please see the registration staff for the correct section number to use when registering for this course.

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

Fall BIOL2990 S01 14384 Arranged 'To Be Arranged'
Spr BIOL2990 S01 23756 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.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Description</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
<td>Introduction to the mammalian nervous system with emphasis on the structure and function of the human brain. Topics include the function of nerve cells, sensory systems, control of movement and speech, learning and memory, emotion, and diseases of the brain. No prerequisites, but knowledge of biology and chemistry at the high school level is assumed. LILE</td>
<td>Fall NEUR0010 S01 15769 TTh 1:00-2:20(10) (M. Paradiso)</td>
</tr>
<tr>
<td>NEUR 0700</td>
<td>Psychoactive Drugs and Society</td>
<td>Will examine psychoactive drugs from two perspectives: (1) biological mechanisms of drug action and (2) the impact of psychoactive drug use on society and society attitudes towards psychoactive drug usage. Drugs to be discussed will include alcohol, opiates, cocaine, marijuana, LSD, nicotine and caffeine, as well as drugs used therapeutically to treat psychiatric disorders. This course will benefit students who are interested in exploring both the biological and social aspects of psychoactive drug use. Prerequisite: NEUR 0010 or equivalent.</td>
<td>Fall NEUR0700 S01 25039 MW 3:00-4:20(14) (R. Patrick)</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
<td>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.</td>
<td>Spr NEUR1020 S01 25034 TTh 9:00-10:20(08) (C. Aizenman-Stern)</td>
</tr>
<tr>
<td>NEUR 1030</td>
<td>Neural Systems.</td>
<td>This lecture course examines key principles that underlie the function of neural systems ranging in complexity from peripheral receptors to central mechanisms of behavioral control. Prerequisite: NEUR 0010 or the equivalent. First year students require instructor approval.</td>
<td>Fall NEUR1030 S01 15770 TTh 10:30-11:50(13) (M. Linden)</td>
</tr>
<tr>
<td>NEUR 1040</td>
<td>Introduction to Neurogenetics</td>
<td>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.</td>
<td>Spr NEUR1040 S01 25506 TTh 10:30-11:50(09) (K. Kaun)</td>
</tr>
</tbody>
</table>

NEUR 1440. Neural Dynamics.
Neurons and systems of neurons vary in their activity patterns on millisecond to second time scales, commonly referred to as “neural dynamics.” This course addresses mechanisms underlying this flexibility and its potential meaning for information processing in the brain. The course integrates biophysical, single neuron and human studies. Examples topics include the impact of attention on neural firing rates, oscillations and sensory representation in neocortex, and the origins and potential meaning of the dynamics during sleep. Students will be introduced to computational modeling as a method to gain insight into dynamics, but no prior mathematics or programming background is required.

Fall NEUR1440 S01 16189 TTh 2:30-4:00(11) (C. Moore) |

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 25038 MWF 11:00-11:50(07) (M. Linden) |

NEUR 1600. Experimental Neurobiology.
Intensive laboratory experience in neuroscience appropriate for students with basic background in Neurobiology. Learn and employ the classical neurophysiological techniques of extracellular recording, intracellular recording and receptive field mapping using a variety of animal species. Experiments will include recording of sensory signals in the cockroach leg; frog sciatic nerve and sciatic nerve/muscle preparation; intracellular recording of neurons in Aplysia; receptive field mapping in frog skin; and visual field mapping in the frog tectum. Instruction on and practice of effective science writing is another component to this course. Labs are supplemented by informal lectures. Enrollment limited to 18. WRIT | Spr NEUR1600 S01 25035 Arranged |

NEUR 1670. Neuropharmacology and Synaptic Transmission.
Synaptic transmission will be studied from a biochemical and pharmacological point of view. We will explore the factors regulating neurotransmitter synthesis, storage, release, receptor interaction, and termination of action. Proposed mechanisms of psychoactive drugs and biochemical theories of psychiatric disorders will be examined. Prerequisites: NEUR 0010 and BIOL 0200 or the equivalent.

Fall NEUR1670 S01 15771 TTh 9:00-10:20(08) (R. Patrick) |

NEUR 1680. Computational Neuroscience.
A lecture and computing lab course providing an introduction to quantitative analysis of neural activity and encoding, as well as modeling of neurons and neural systems. Emphasizes Matlab-based computer simulation. Prerequisites: NEUR 0010, 1020 or 1030; APMA 0410 or 1650, or equivalent. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 5, 2013. Instructor permission required.

Spr NEUR1680 S01 25474 Arranged (L. Bienenstock) |

NEUR 1930C. Development of the Nervous System.
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. Sign-up sheet available in Sidney Frank Hall, Rm. 315, beginning on November 4, 2014.

Spr NEUR1930C S01 25512 Arranged (A. Jaworski) |

NEUR 1930N. Region of Interest: An In-Depth Analysis of One Brain Area.
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

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
the brain. Students will gain experience with primary literature and learn about techniques for studying the area. Possible topic for Spring 2015: The Basal Ganglia. Sign-up sheet in SFH, Room 315 beginning April 15, 2014.

Spr NEUR1930S S01 25513 Arranged (M. Linden)

NEUR 1940E. Molecular Neurobiology: Genes, Circuits and Behavior
In this seminar course, we will discuss primary research articles, both recent and classical, covering topics ranging from the generation of neuronal diversity to the control of behavior by specific neural circuits. Instructor permission required; enrollment limited to 15. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 4, 2014.

Spr NEUR1940ES01 25355 Arranged (G. Barnea)

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

NEUR 2010. Graduate Proseminar in Neuroscience
A study of selected topics in experimental and theoretical neuroscience. Present by neuroscience faculty, students, and outside speakers. A required course for all students in the neuroscience graduate program. Fall NEUR2010 S01 15871 Arranged (D. Sheinberg)

See Graduate Pro-Seminar In Neuroscience (NEUR 2010) for course description.

Spr NEUR2020 S01 25158 Arranged (D. Sheinberg)

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

Fall NEUR2030 S01 15869 Arranged (D. Lipscombe)

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

Spr NEUR2040 S01 25156 Arranged (G. Barnea)

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

Fall NEUR2050 S01 15970 Arranged (D. Sheinberg)

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 25157 Arranged (J. Sanes)

NEUR 2110. Statistical Neuroscience.
A lecture and computing lab course for senior undergraduate and graduate students with background in either systems neuroscience or applied math/biomedical engineering on the statistical analysis and modeling of neural data, with hands-on Matlab/Octave/Python-based applications to real and simulated data. Topics will include signal processing, hypothesis testing and statistical inference, modeling of multivariate time series and stochastic processes in neuroscience and neuroengineering, neural point processes, time and spectral domain analyses, and state-space models. Example datasets include neuronal spike trains, local field potentials, ECoG/EEG, and fMRI. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 4, 2014. Instructor permission required.

Spr NEUR2110 S01 25680 Arranged (W. Truccolo-Filho)

NEUR 2160. Neurochemistry and Behavior.
Examines behavior from a neurochemical perspective via readings and discussions based on original research articles. Intended primarily for graduate students with a strong background in neurochemistry and neuropharmacology and advanced undergraduates with an appropriate background. Offered alternate years. Sign-up sheet in Sidney Frank Hall, Room 315 beginning November 4, 2014.

Fall NEUR2160 S01 16164 W 3:00-5:30(17) (R. Patrick)

NEUR 2930E. Bench to Bedside: Unraveling Diseases of the Nervous System.
Enrollment is restricted to graduate students.

Fall NEUR2930E S01 15872 Arranged (B. Connors)
Spr NEUR2930ES01 25159 Arranged (B. Connors)

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 14437 Arranged (D. Sheinberg)
Spr NEUR2970 S01 23805 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

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

Fall NEUR2990 S01 14438 Arranged (D. Lipscombe)
Spr NEUR2990 S01 23806 Arranged (D. Lipscombe)

Program in Liberal Medical Education

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

Fall PLME1000 S01 16299 MW 8:30-9:50(16) (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-mentored teams for social entrepreneurship and social innovation projects. BEO 1930A (fall) required; 1940A (spring) strongly advised for all Organizational Studies track seniors. Application
required to match students to projects. Project team meetings required outside scheduled lectures. WRIT
Fall BEO1930A S01 14933 TTh 2:30-3:50(11) (M. Fennell)

BEO 1930B. BEO Capstone I: Entrepreneurship and Technology Management Track.
The first in a two-semester capstone required of BEO Tech track seniors. Student teams from Engineering, BEO and other technical and non-technical disciplines form simulated high tech start-up companies working on mentor-defined opportunities. Concepts reviewed in class include: product commercialization, intellectual property, marketing, product requirements documentation, team building, safety, environmental and legal requirements. BEO Tech track concentrators should complete 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. WRIT
Fall BEO1930B S01 14934 TTh 2:30-3:50(11) (M. Fennell)

BEO 1930C. BEO Capstone I: Business Economics Track.
Designed for BEO Business Economics track seniors, this capstone is open to all BEO students, and builds upon BEO concepts in economics, finance, strategy and markets. Students form teams to solve existing business problems, simulating groups of consultants. Projects range from recommending appropriate finance for new investments to project evaluation and pricing of new services. Student teams have client-mentors. Students apply analytical frameworks of BEO disciplines to hone writing, presentational, leadership and organizational skills. Application required to match students to projects. Project team meetings required outside scheduled lectures. WRIT
Fall BEO1930C S01 14936 TTh 2:30-3:50(11) (T. Nguyen)

BEO 1940A. BEO Capstone II: Organizational Studies Track.
Continuation of Semester 1, BEO Capstone I: Organizational Studies Track (BEO 1930A). This course involves the completion of team projects begun in fall semester. WRIT
Spr BEO1940A S01 24240 TTh 2:30-3:50(11) (M. Fennell)

BEO 1940B. BEO Capstone II: Entrepreneurship and Technology Management Track.
Continuation of Semester 1, BEO Capstone I: Entrepreneurship and Technology Management Track (BEO 1930B). This course involves the completion of team projects begun in fall semester. Non-BEO concentrators require instructor permission. WRIT
Spr BEO1940B S01 24241 TTh 2:30-3:50(11) (S. Petterutti)

Chemistry
CHEM 0800B. Molecular Structures in Chemistry and Biology.
This course will consist of a survey of historical developments and concepts of three dimensional structures of molecules. The course will conclude with a survey of the current state of the art of structure determination and 3D structure motifs for small molecules, nanomaterials and biological macromolecules. This freshman only seminar will be strictly limited to a maximum of 20 students. FYS
Fall CHEM0800BS01 15950 MW 8:30-9:50(16) (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 14810 MWF 11:00-11:50(04) (S. Russo-Rodriguez)

CHEM 0330. Equilibrium, Rate, and Structure.
Explores the electronic structure of atoms and molecules, thermodynamics, solution equilibria, 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 14822 Arranged 'To Be Arranged'
Fall CHEM0330 S01 14817 MWF 10:00-10:50(03) (L. Wang)

CHEM 0350. Organic Chemistry.
Sequel to CHEM 0330. Investigates the constitution and properties of the different classes of organic compounds, with considerable attention to reaction mechanisms. The laboratory work involves an introduction to microscale preparative and analytical techniques of organic chemistry and the preparation of representative organic compounds. Three hours of lecture and five hours of prelaboratory and laboratory. Prerequisite: CHEM 0330.
Students MUST register for a common meeting, a lecture section, a lab and a conference.
If you previously completed CHEM 0350 laboratory but received a grade of no credit in the course, please register for lab section 11.
Spr CHEM0350 M01 24150 Arranged 'To Be Arranged'
Spr CHEM0350 S01 24148 MWF 9:00-9:50(01) (C. Seto)
Spr CHEM0350 S02 24149 TTh 9:00-10:20(01) (J. Suggs)

CHEM 0360. Organic Chemistry.
Sequel to CHEM 0350. Investigates the constitution and properties of organic compounds at a fundamental level with an introduction to physical organic, bioorganic, and synthetic organic chemistry. Laboratory work is concerned with the identification and characterization of organic compounds, including modern instrumental methods. Three hours of lecture and five hours of prelaboratory and laboratory. Prerequisite: CHEM 0350.
Students MUST register for a lecture section, a lab and a conference.
If you previously completed CHEM 0360 laboratory but received a grade of no credit in the course, please register for lab section 11.
Fall CHEM0360 M01 14828 Arranged 'To Be Arranged'
Fall CHEM0360 S01 14823 F 9:00-9:50(02) (A. Basu)
Fall CHEM0360 S01 14823 MW 9:00-9:50(02) (A. Basu)
Fall CHEM0360 S02 14824 TTh 9:00-10:20(02) (M. Zimmt)

CHEM 0400. Biophysical and Bioinorganic Chemistry.
Examines aspects of physical and inorganic chemistry relevant to biochemistry: thermodynamics of hydrophobic and hydrophilic interactions, electrically charged membranes, coordination chemistry, active and passive transport, enzyme kinetics and mechanisms, metal-based drugs, and physical methods. Three hours of lecture and five hours of laboratory. Prerequisite: CHEM 0360 and MATH 0100 or 0170. Prerequisite or corequisite: PHYS 0400 or 0060.
Students MUST register for a lecture section and a lab.
Spr CHEM0400 S01 24154 MWF 11:00-11:50(04) (E. Kim)

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 24157 MWF 11:00-11:50(04) (W. Bernskoetter)

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

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

CHEM 1060. Advanced Inorganic Chemistry.
Covers the physical and chemical properties of transition metal compounds as well as current research topics in inorganic chemistry. Laboratory is designed for the practice of modern inorganic chemistry through the synthesis and spectroscopic characterization of air-sensitive transition metal compounds. Prerequisite: CHEM 0500.
Fall CHEM1060 S01 14829 MWF 9:00-9:50(16) (E. Victor)
CHEM 1140. Physical Chemistry: Quantum Chemistry.
An introduction to the quantum theory of chemical systems. Elements of quantum mechanics; electronic structure of atoms and molecules; study of molecular structure and behavior by spectroscopy; chemical bonding are explored. Prerequisites: CHEM 0330, MATH 0180 or equivalent, PHYS 0040 or 0060 or equivalent. Recommended but not required: MATH 0520 or equivalent.
Fall CHEM1140 S01 14831 8:30-9:50(02) (R. Stratt)

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.
Fall CHEM1150 S01 24161 10:00-10:50(03) (L. Wang)

CHEM 1160. Physical Chemistry Laboratory.
An introduction to modern instrumentation and experimental techniques as applied to physical chemistry. Experiments will emphasize application of the ideas of spectroscopy, kinetics, statistical mechanics, and thermodynamics to systems of chemical and biochemical interest. Required course for concentrators in chemistry. One to two afternoons of laboratory per week. Prerequisites: CHEM 1140 or permission of the instructor.
Spr CHEM1160 S01 24162 MW 1:00-1:50(08) (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 the central methods of chemical biology, namely the ability to design and synthesize compounds with a particular set of properties, to analyze biological problems. Specific topics include molecular recognition of DNA, artificial enzymes, small molecule sensors, and in vivo imaging of proteins, nucleic acids, and cell-surface carbohydrates. Prerequisites: CHEM 0350,CHEM 0360, and BIOL 0280. 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 who have registered or have permission to enroll must attend the first three classes or risk losing their places to someone on the waiting list.
Fall CHEM1230 S01 14832 MW 8:30-9:50(16) (J. Sello)

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, spectrochemistry, enzymology, kinetics, and protein structure can be brought to bear to unravel the chemical and physical principles underlying the enormous catalytic acceleration and exquisite structural specificity of enzyme-catalyzed reactions. Prerequisites: Strong background in organic chemistry (CHEM 0330-0360, A or B performance preferable) plus at least one semester of Biochemistry (BIOL 0280, BIOL 1270). Enrollment limited to: 25 students, written permission required.
If enrollments exceed the limit of 25 students, permission to enroll for students who meet the course prerequisites will be allotted in the order: a) first year Chemistry graduate students, b) undergraduate senior concentrators in Chemistry, Biochemistry or Chemical Biology, c) junior concentrators in Chemistry, Biochemistry or Chemical Biology, d) other students. Students who have permission to enroll must attend the first three classes or risk losing their places to someone on the Course waiting list.
Spr CHEM1240 S01 24163 TTh 9:00-10:20(08) (D. Cane)

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

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, ROEY, EXSY and DOSY methodology. This course will not focus on structure determination or spectral interpretation but rather on experimental methodology.
Spr CHEM1560G S01 24164 MW 10:00-11:00(10) (P. Willard)

CHEM 1560M. Applied Materials Chemistry.
Materials chemistry is the study of the synthesis, structure, properties, and application of solid materials. Our technology-driven world is fueled by advances in materials chemistry with examples of application in areas such as microelectronics, polymers, and energy technology. This course will explain the application of materials chemistry through the materials properties and characterization, detailing how the crystalline and molecular structure of materials can be related to electronic, optical, thermal, and mechanical properties. WRIT
Spr CHEM1560M S01 25530 TTh 9:00-10:20(08) (K. Koski)

CHEM 1660. Instrumental Analysis with Environmental Applications.
This course covers the principles and practical applications of important analytical chemistry tools used to study environmental problems, including discussions of method selection and statistical treatment of data. Students will strategize and implement a study of a field site. Includes lab sessions with hands-on experience of instrumental analysis using atomic and molecular spectroscopic techniques, separations by gas and liquid chromatography, and electrochemical methods. Prerequisite: CHEM 0330 or GEOL 1370. Enrollment limited to 20. Instructor permission required.
Spr CHEM1660 S01 25246 TTh 10:30-11:50(09) (J. Suggs)

Focuses on synthesis, properties, and applications of nanoscale materials. It begins with the introduction to size-dependent properties and to general characterization methods of nanomaterials. It then outlines the synthesis, surface chemistry and self-assembly of nanomaterials. It further reviews catalytic, optical and magnetic properties of nanomaterials. Finally, the course highlights the applications of nanomaterials in information storage, energy conversion, and biomedicine.
Fall CHEM1700 S01 14833 MW 11:00-12:10(16) (J. Sello)

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 14834 TTh 10:30-11:50(13) (C. Rose-Petruck)

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 24165 MW 9:00-10:10(10) (R. Stratt)

CHEM 2310. Advanced Inorganic Chemistry.
Comprehensive survey of topics in synthetic and mechanistic organometallic chemistry.
Fall CHEM2310 S01 16140 TTh 10:30-11:50(13) (S. Sun)

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

Detailed examination of organic reaction mechanisms, reactive intermediates, and the methods employed for their characterization (e.g., kinetics, free energy relationships, isotope effects, molecular orbital theory, spectroscopy, and product distributions). Topics may include concerted, free radical, elimination, and photochemical reactions, and the chemistry of radicals, carbocations, carbanions, and carbenes. Prerequisites: CHEM 0500, CHEM 1140.
Fall CHEM2410 S01 14835 MWF 10:00-10:50(03) (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 14837 TTh 9:00-10:20(08) (P. Williard)
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 24167 MWF 9:00-9:50(09) (J. Sello)
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 14838 TTh 9:00-10:20(08) (G. Diebold)
CHEM 2780. Quantum Mechanics.
Semester II: Lectures consider the theory and application of time-dependent quantum mechanical methods in chemical physics. Both few and many-body methods are described and discussions include the correlation function formulation of chemical dynamics. Numerical path integral methods for equilibrium and dynamical problems are introduced. Prerequisite: CHEM 2770.
Spr CHEM2780 S01 24168 MWF 11:00-11:50(04) (J. Doll)
CHEM 2870. Departmental Colloquia.
No description available. Open to graduate students only.
Fall CHEM2870 S01 14839 F 4:00-4:50(14) (M. Zimmt)
CHEM 2880. Departmental Colloquia.
No description available. Open to graduate students only.
Spr CHEM2890 S01 24169 F 4:00-4:50(15) 'To Be Arranged'
CHEM 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.
Fall CHEM2970 S01 14385 Arranged 'To Be Arranged'
Spr CHEM2970 S01 23757 Arranged 'To Be Arranged'
CHEM 2980. Research.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.
CHEM 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall CHEM2990 S01 14386 Arranged 'To Be Arranged'
Spr CHEM2990 S01 23758 Arranged 'To Be Arranged'
CHEM XLIST. Courses of Interest to Students wishing to Study Chemistry.

Classics

CLAS 0010. The Greeks.
For centuries Western civilizations have seen the Greeks as their intellectual and spiritual ancestors. The 'Greek miracle' is explored by reviewing its major achievements and discoveries: poetry (heroic epic, tragedy, political comedy), philosophy, historical research, political analysis and institutions, science. All texts read in English. LILE WRIT
Spr CLAS0010 S01 25075 MWF 11:00-11:50(04) (S. Kidd)
CLAS 0020. The Romans.
Statesmen exposed republican conspiracies; historians chronicled imperial intrigue; playwrights "Greeked-it-up" with toga parties; epic poets sang of Rome's rise (and fall); moralizers bemoaned gladiators' beauty habits; and a novelist recounted the adventures of a man turned into an ass. This course tracks the development of literary culture at Rome from its beginnings to the end of the Empire, with an emphasis on the major genres, authors, and works of Roman literature. Intended for all students desiring an introduction to Roman literary culture and its masterpieces. All texts read in English; no previous experience in Roman history or Latin required. LILE WRIT.
Fall CLAS0020 S01 15474 MWF 10:00-10:50(03) (J. Reed)
CLAS 0210. Sport in the Ancient Greek World.
Athletics and sports were as popular and significant in the ancient Greek world as they are today, and so offer an excellent introduction to its archaeology and history. This class will discuss the development of Greek athletics, the nature of individual events, the social implications of athletic professionalism, women and athletics, and the role of sport in Greek education. Enrollment limited to 20 first year students. FYS
Spr CLAS0210C S01 25136 MWF 2:00-2:50(07) (J. Cherry)
CLAS 0310. Social Welfare in the Ancient Greek City.
What inequalities existed in the ancient Greek city? This course seeks to identify the different treatment of the inhabitants of the Greek city (polis) and the degree to which the city sought to support the disadvantaged by the redistribution of wealth. Ancient Greek communities taxed activity and property, gathered revenue, and redistributed wealth within the community. The wealthy were often liable to redirect part of the wealth to the community. How well did the redistributive economy of the Greek city work? Who were the winners? Who were the losers? What conclusions can we draw about well-being in the Greek polis? WRIT SOPH
Spr CLAS0310 S01 25427 TTh 3:00-3:50(13) (G. Oliver)
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. WRIT
Fall CLAS0660 S01 15476 MWF 10:00-10:50(03) (S. Inslay Say)
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.
Fall CLAS0810A S01 16676 MWF 11:00-11:50(04) (J. Cherry)
CLAS 0900. Greek Mythology.
Reviews major myths along with some lesser known variations, in order to understand how ancient Greeks imagined their relation to the divine world, to nature, and to other human beings. Considers connections between myth and cult or ritual, and also to the psychological, social, historical, and aesthetic aspects of classical myths. Examines adaptations of classical myths in later societies and comparative materials from other cultures.
Fall CLAS0900 S01 15477 MWF 2:00-2:50(07) (J. Hanink)
CLAS 0950. The Myth of the Seven: From Aeschylus to Kurosawa. 
What is a myth? Does it have a life of its own? In this class, we will focus on a single story and study its progression from epic times to Classical Greece, to the Roman empire and medieval period, to the Renaissance and Hollywood. Why do certain stories survive? How do different ages think about a story and what do they need from these stories? We will read authors like Aeschylus, Euripides, Status, and Racine, consider depictions in the visual arts, and watch film versions like the cowboy classic “The Magnificent Seven” and Kurosawa’s “Seven Samurai.” All texts in translation. LILE WRIT
Fall CLAS0950 S01 15891 MWF 11:00-11:50(04) (S. Kidd)

CLAS 0990. Concepts of the Self in Classical Indian Literature. 
Examination of the great Indian epic Mahabharata and related mythology to introduce the context for the most ancient speculations of the Rgveda and the subtle teacher-student dialogues about the self contained in the Bhagavadgita and Upanishads. We will also examine the more systematic Indian philosophical texts and note their resonance in ancient and modern European conceptions of self.
Spr CLAS0990 S01 25730 TTh 2:30-3:50(11) (D. Buctha)

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 (I. c. A.D.). Masterpieces such as Virgil’s Aeneid and Ovid’s Metamorphoses are included. Original sources read in translation. LILE WRIT
Fall CLAS1120B S01 15858 TTh 2:30-3:50(11) (P. Nieto Hernandez)

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 25089 MWF 1:00-1:50(06) (L. Mignone)

CLAS 1120V. The Age of Constantine: The Roman Empire in Transition. 
The reign of Constantine the Great (306-337) and his dynasty heralded a period of remarkable/rash change in the Roman Empire. Christianity became the sole imperially sponsored religion; the split between Western and Eastern halves of the Empire gradually became permanent and irrevocable; consequently new ways of thinking and writing about the Roman world, past and future, developed. Focusing on generous selections of primary source material in translation and current scholarship, we will explore the history, literature, and culture of Constantinian Empire in order to highlight the role of Constantine and his successors in the evolution of the late Roman Mediterranean.
Spr CLAS1120V S01 25092 TTh 10:30-11:50(09) (S. Insley Say)

CLAS 1130. Society and Population in Ancient Greece. 
This interdisciplinary course stresses the importance of social and demographic themes for our understanding of ancient Greek socio-economic history. The course addresses topics that are fundamental to historical demography (mortality, birth rates, and factors that affect them). It draws directly on primary sources (documentary, literary and archaeological) and readings of modern historians that allow us respectively to analyze evidence and contextualize the issues relating to social history and historical demography. The course takes a longue durée approach and incorporates ancient Greek communities in Greece, the Balkans, Asia Minor, and the Black Sea, from the Archaic, Classical, Hellenistic, and Roman periods. WRIT
Fall CLAS1130 S01 16015 TTh 10:30-11:50(13) (G. Oliver)

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. DPLL
Fall CLAS1160 S01 16434 TTh 1:00-2:20(10) (D. Buctha)

CLAS 1310. Roman History I: The Rise and Fall of an Imperial Republic. 
The social and political history of Ancient Rome from its origins to the death of Augustus in 14 CE. Focuses on the social conflicts of the early Republic; the conquest of the Mediterranean and its repercussions; the breakdown of the Republic and the establishment of monarchy. Readings emphasize ancient sources in translation. WRIT
Fall CLAS1310 S01 15479 MWF 1:00-1:50(06) (L. Mignone)

CLAS 1320. Roman History II: The Roman Empire and Its Impact. 
The social and political history of the Roman Empire (14-585 CE). Focuses on expansion, administration, and Romanization of the empire; crisis of the 3rd century; militarization of society and monarchy; the struggle between paganism and Christianity; the end of the Empire in the West. Special attention given to the role of women, slaves, law, and historiography. Ancient sources in translation. WRIT
Spr CLAS1320 S01 25066 MWF 10:00-10:50(03) (G. Oliver)

CLAS 1750N. Marriage in the Ancient World. 
Marriage is a historical phenomenon: it assumes various forms and has distinct meanings in different societies, even those that have been regarded as the fountainhead of Western values. This course (a seminar addressed in particular to upper-level undergraduates) investigates this important social institution in ancient Greece and Rome, using a variety of primary documents (literary, historical, epigraphical, etc.) and taking account of modern approaches to the study of marriage, including anthropological, sociological and psychological theories. All sources will be read in English.
Spr CLAS1750N S01 25238 MWF 11:00-11:50(04) (P. Nieto Hernandez)

CLAS 1750P. Staging the Law: Classical Literature and Renaissance Drama. 
(1) We examine theater and its relation to society, particularly, its reflection of legal culture (detectors 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 comparanda 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, focusing 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.
Fall CLAS1750P S01 16670 TTh 1:00-2:20(18) (A. Scafuro)

CLAS 1930C. Parasites and Hypocrites. 
The course is a study of the many forms of toadying, groveling, feigning friendship, flattery, ass-kissing, and so on, that were such a large source of concern — and comedy — in antiquity. The anxieties over hypocrisy in a democracy and parasites in client-patron systems will be explored historically, in literary representations, and in their social, political, and economic contexts. Authors to be read include Aristophanes, Plutarch, Lucian, Plautus, Horace, and Petronius.
Spr CLAS1930C S01 25429 TTh 2:30-3:50(11) (K. Haynes)

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

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

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

Fall CLAS2000 S01 15480 TTh 9:00-10:20(08) (J. Debrohun)

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 14388 Arranged 'To Be Arranged'
Spr CLAS2970 S01 23759 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 tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.

Fall CLAS2990 S01 14389 Arranged 'To Be Arranged'
Spr CLAS2990 S01 23760 Arranged 'To Be Arranged'

CLAS XLIST. Courses of Interest to Classics Concentrators.

Greek

GREK 0100. Essentials of the Greek Language.
A two-semester approach to ancient Greek with special emphasis on developing facility in rapid reading of Greek literature. Selections from Attic Greek authors. No previous knowledge of Greek is required.

Fall GREK0100 S01 15481 MWF 1:00-1:50(06) (M. van Veldhuizen)
Fall GREK0100 S01 15481 TTh 12:00-12:50(06) (M. van Veldhuizen)

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

Spr GREK0110 S01 25072 TTh 12:00-12:50(03) 'To Be Arranged'
Spr GREK0110 S01 25072 MWF 10:00-10:50(03) 'To Be Arranged'

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

Spr GREK0200 S01 25073 TTh 12:00-12:50(03) 'To Be Arranged'
Spr GREK0200 S01 25073 MWF 10:00-10:50(03) 'To Be Arranged'

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

Fall GREK0300 S01 15482 MWF 9:00-9:50(16) (D. Machado)

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

Spr GREK0400 S01 25083 MWF 1:00-1:50(06) 'To Be Arranged'

GREK 1050A. Aristophanes.
Addresses students with at least an intermediate-level command of Ancient Greek, but previous knowledge of Aristophanic language and poetry is not required. We will read in the original language Aristophanes’ Frogs, and study different aspects (language, meter, historical background, theatrical performances, literary interpretations, etc.) of this play and of Aristophanic comedy generally. Frogs, composed towards the end of the Peloponnesian War, is one of Aristophanes’ most puzzling plays. It presents a fantasy (and comic) vision of the afterlife and, indirectly, informs us about the literary criticism of the time.

Spr GREK1050A S01 25094 TTh 10:30-11:50(09) (A. Scalfaro)

GREK 1050B. Euripides.
Introduction to the study of Athenian tragedy. Thorough translation of one drama with attention to literary analysis. Rapid survey of other Euripidean plays.

Fall GREK1050ES01 15845 MWF 10:00-10:50(03) (J. Hanink)

GREK 1060. Herodotus.
What does it mean to be "the father of history?" We will read the last book of the Histories in Greek, supplemented with related texts (some in English translation), as we discuss how this illuminating, entertaining masterpiece spoke to its intended audience and to modern readers as well.

Fall GREK1060 S01 15857 TTh 2:30-3:50(11) (G. Oliver)

In this class we will read Books I, II, III, and X of Aristotle’s ‘Nichomachean Ethics’ and discuss his treatment of the highest human good, moral virtue, the doctrine of the mean, and his theory of action.

Fall GREK1110OC01 15859 MWF 1:00-1:50(06) (S. Kidd)

GREK 1111C. Late Antique Historiography: Procopius of Caesarea.
This course will consider the writings of Procopius of Caesarea (ca. 500-565) in light of his place in Greek literary history, and its cultural context in the Late Roman Empire of Justinian. Sessions will combine a critical reading of texts in Greek with analysis of the author’s historical methods, style, and literary influences. We will study portions of all three of Procopius’ surviving works, beginning with The Wars, and continuing with The Secret History and The Buildings.

Spr GREK1111CS01 25428 TTh 1:00-2:20(10) (S. Insley Say)

GREK 1111D. Daphnis and Chloe.
Goethe said that you should read Longus’ “Daphnis and Chloe” once a year (in Greek, of course!). So if you haven’t read it yet, it’s time. One of the first novels ever written, it offers pirates, erotic encounters, and numerous goat-filled landscapes. Discussions include the origins and development of the prose novel, the political and social context of the times, and the beauty of Longus’ idyllic narrative.

Spr GREK1111DS01 25241 MWF 1:00-1:50(06) (S. Kidd)

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

Fall GREK1150 S01 15487 TTh 10:30-11:50(13) (P. Nieto Hernandez)

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

Spr GREK1810 S01 25135 MWF 2:00-2:50(07) (P. Nieto Hernandez)

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

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

GREK 2100E. Athens on Stage, Athens as Stage.
This graduate seminar will interrogate how classical Athens performed itself - as a city and as an idea - to citizens, metics and foreigners. Our primary focus will be drama, especially plays set in Athens itself. But we will also consider the performative contexts of the plays (at festivals), and other sites of civic performance: the Parthenon, the funeral oration and demotic sema, architecture, art, rhetoric, etc. Discussion will be rooted in the Athenian sources, but we will also draw upon ideas and concepts from other disciplines (e.g. civil religion, civic choreography, and city 'scenes' of performance).

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

LATN 0100. Essentials of the Latin Language.
An intensive two-semester approach to Latin with special emphasis on developing facility in the rapid reading of Latin literature. No previous knowledge of Latin is required.
Fall LATN0100 S01 15490 TTh 12:00-12:50(16) (K. Fairbank)
Fall LATN0100 S01 15490 MWF 9:00-9:50(16) (K. Fairbank)

LATN 0110. Introduction to Latin.
Intensive, one-semester introduction to Latin. No previous knowledge of Latin is required.
Spr LATN0110 S01 25068 TTh 12:00-12:50(02) ‘To Be Arranged’
Spr LATN0110 S01 25068 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.
Spr LATN0200 S01 25068 TTh 12:00-12:50(05) ‘To Be Arranged’
Spr LATN0200 S01 25068 MWF 12:00-12:50(05) ‘To Be Arranged’

LATN 0300. Introduction to Latin Literature.
Introduction to Latin literature through intensive reading of major authors in prose and poetry with careful attention to grammar and style. Prerequisite: LATN 0100, 0200 or 0110 (or equivalent).
Fall LATN0300 S01 15846 MWF 11:00-11:50(04) (E. Bissell)

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 25071 MWF 9:00-9:50(02) ‘To Be Arranged’

LATN 1020B. Cicero, Verrines.
Spr LATN1020B S01 25095 TTh 2:30-3:50(11) (A. Scafuro)

LATN 1110F. Fortunatus.
Wide reading in the occasional poetry of the most prolific writer of the early Middle Ages, attending to diction, meter, imagery, allusion, and paying special attention to the (homo- and hetero-) erotic pieces written to the poet’s friends.
Spr LATN1110F S01 25091 MWF 2:00-2:50(07) (J. Pucci)

LATN 1110G. Latin Love Elegy.
Reading of representative selections from each of the Roman elegists: Tibullus, Propertius, and Ovid. Discussion also of the origins and development of love elegy at Rome and exploration of the themes and tropoi that define the genre. Follows the poets’ negotiations with various discourses and ideologies in Augustan Rome: literary, social, sexual, and political.
Fall LATN1110G S01 15847 TTh 1:00-2:20(10) (J. Debrouh)

LATN 1110V. Juvenal.
A survey of the work of classical Rome’s last great verse satirist, with special consideration to his place in the development of the form and in the literary culture of late first and early second century Rome.
Fall LATN1110V S01 15945 TTh 2:30-3:50(11) (J. Bodel)

LATN 1110Y. Latin Epistemology (Cicero, Pliny).
The personal correspondences of Cicero and of Pliny the Younger offer insight into the social and political workings of Rome in two critical periods: the final decades of the Republic and the decades just before the Empire reached its greatest extent. Selections from Cicero, composed for a private audience, expose the statesman’s inner hopes and anxieties regarding his family, his friends, and his state. Selections from Pliny, self-consciously published by the author himself, not only recount exciting moments in Roman history (such as the early persecution of Christians and Vesuvius’ eruption), but also play with the very genre of epistemology.
Fall LATN1110Y S01 15491 MWF 11:00-11:50(04) (L. Mignone)

LATN 1110Z. Dying in the Republic.
For those who witnessed the bloody violence and brutal butchering of the late Republic, death and dying were everywhere. What did these Romans believe happened to the dead? Was there an afterlife? This course explores two texts (Virgil and Cicero) that deal with visions from and of the spheres beyond the realm of the living. Discussion of supplementary material from other authors, religious studies, and material evidence further develop our notions of what it meant to die in the Republic.
Spr LATN1110Z S01 25074 MWF 11:00-11:50(04) (L. Mignone)

LATN 1120F. Renaissance Latin Poetry.
This course will cover a diverse selection from the Latin poetry of the Renaissance (fourteenth through seventeenth centuries) in the original language. Epic, lyric, pastoral, and other forms will be on our reading list; we will go over the readings in class with an eye to linguistic questions as well as to literary and cultural questions and to the poets’ rethinking and reshaping of the Classical past for present concerns. This course is open to students who have had at least two years of Latin or the equivalent.
Spr LATN1120F S01 25189 TTh 10:30-11:50(09) (J. Reed)

LATN 1820. Survey of Roman Literature II: Empire.
This course will survey the major authors of Latin literature in chronological order from Virgil.
Fall LATN1820 S01 15492 MWF 2:00-2:50(07) (J. Reed)

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 2090H. Allusion and Its Discontents.
Our concern is both the history and future of the study of allusion in Latin literature. We will explore the implications of the different terms and perspectives associated with our subject: most obviously, allusion and intertextuality, plus interpretative approaches that privilege auctorial control and initiative, textual intentions, or readerly reception. Attention will be paid to negotiations not only between poietical works but also between prose works and between prose and poetry. We will also investigate the relationship between allusion and other types of textual appropriation, including translations, adaptations, and direct quotations. A wide variety of Latin texts will be read.
**Modern Greek**

**MGRK 0400. 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 15471 TTh 10:30-11:50 (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 15473 Tth 1:00-2:20(13) (E. Amanatidou)

**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 15494 TTh 12:00-12:50(12) (D. Buchta)
Fall SANS0100 S01 15494 MWF 12:00-12:50(12) (D. Buchta)

**SANS 0200. Elementary Sanskrit II.**
This course continues the survey of grammar and the reading exercises of SANS 100. The second half of this course reads selected passages of the Bhagavad Gītā and the beginning of the classic story of Nala and Damayanti from the Mahābhārata. Prerequisite: SANS 0100.

Spr SANS0200 S01 25088 TTh 12:00-12:50(05) (D. Buchta)
Spr SANS0200 S01 25088 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 15495 MWF 9:00-9:50(15) (J. Byrd)

**SANS 0400. Classical Sanskrit Story Literature.**
Introduces students to the more challenging Sanskrit of classical story literature and continues to extend the knowledge of Sanskrit grammar introduced in first year Sanskrit and developed in SANS 0300, as well as present basic Indian cultural themes. Prerequisite: SANS 0300.

Spr SANS0400 S01 25145 TTh 1:00-2:20(10) 'To Be Arranged'

**SANS 1020. Early Sanskrit Philosophy and Religion.**
Reading in Sanskrit of selections from the Upanishads, Bhagavad Gītā, Dharmāsāstras, etc. Prerequisite: SANS 0200.

Fall SANS1020 S01 15496 TTh 9:00-10:20(08) (D. Buchta)

**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.

Spr SANS1800 S01 25093 TTh 9:00-10:20(08) (D. Buchta)

**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 14456 Arranged 'To Be Arranged'
Spr SANS2970 S01 23822 Arranged 'To Be Arranged'

---

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

CLPS 0010. Elementary Psychology: An Introduction to Mind and Behavior.
A survey covering the roles of inherited and environmental determinants of human behavior. Topics include sensation, perception, learning, memory, motivation, emotion, neural processes, language, social development, personality assessment, obedience, interpersonal attraction, and the diagnosis, origins, and treatment of mental illness. Laboratory sections illustrate methodologies used to study these issues. Topic selection varies with instructor.
Fall CLPS0010 S01 15724 MWF 11:00-11:50(04) (E. Festa)

Cognitive science is the study of the mind from an interdisciplinary perspective. It focuses on such questions as how do we process information to recognize objects and faces, to know that a cup is not a bowl, to remember and learn, and to speak and understand? How can we study the brain inform us about the mind? This course will examine the above questions and discuss major themes in cognitive science, including nature-nurture, categories and representations, and the nature of computations. WRIT
Fall CLPS0020 S01 15725 MWF 12:00-12:50(12) (S. Blumstein)

CLPS 0030. Introduction to Linguistic Theory.
The ability to speak and understand a language involves having mastered (quite unconsciously) an intricate and highly structured rule-governed system. Linguists seek to model that rule system. This course introduces the principles underlying phonology (the principles which govern how sounds are put together), syntax (the rule system governing sentence structure), and semantics (the system which relates sentences to meanings). LILE
Fall CLPS0030 S01 15726 TTh 9:00-10:20(08) (S. Anderbois)

CLPS 0040. Mind and Brain: Introduction to 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 CLPS0040 S01 24966 MWF 2:00-2:50(07) (D. Badre)

In a series of theoretical articles, Melvyn Goodale and his collaborators are examining the role of vision in the control of action, focusing on the two visual systems. The course will emphasize class discussion and the production of tangible projects. Enrollment limited to 20 first year students. FYS
Fall CLPS0050B S01 15727 TTh 1:00-2:20(10) (F. Domini)

CLPS 0050J. Psychology of Creativity.
This course is a first year seminar intended to introduce students to the lively word of creativity and the science thereof. Classic and contemporary readings will be discussed covering topics ranging from theory and assessment to applications in education, product design, organizational behavior, the arts, and science itself. Students will also be nudged to become more mindful of the role of creativity in their everyday lives. The course will emphasize class discussion and the production of tangible projects. Enrollment limited to 20 first year students. FYS
Fall CLPS0050J S01 15731 TTh 10:30-11:50(13) (J. Song)

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.
Spring CLPS0100 S01 24969 MWF 1:00-1:50(06) (R. Colwill)

An examination of physiological and evolutionary mechanisms underlying species-specific behavior in both vertebrate and invertebrate animals. Topics include: evolution and mechanisms of sensory systems, modes of locomotion, orientation and navigation, communication, and cognitive capacities of animals.
Spring CLPS0110 S01 24967 MWF 12:00-12:50(05) (A. Simmons)

CLPS 0120. Introduction to Sleep.
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 prerequisite: CLPS 0210, CLPS 0200 or NEUR 0010; or an AP course in psychology or physiology.
Fall CLPS0120 S01 15729 M 3:00-5:30(15) (M. Carskadon)

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. LILE
Spring CLPS0200 S01 24970 TTh 2:30-3:50(11) (J. Austerweil)

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?).
Spring CLPS0220 S01 24971 MWF 10:30-11:50(09) (S. Sloan)

CLPS 0400. Brain Damage and the Mind.
Brain damage in human subjects can produce dramatic and highly selective impairments in cognitive functioning. This course provides an overview of the major neuropsychological disorders of perception, language, memory, thought, and action. Emphasizes the development of human information processing models for understanding the cognitive deficits observed in brain-damaged patients and the implications of neuropsychological findings for models of normal cognition.
Spring CLPS0400 S01 24972 MWF 9:00-9:50(02) (E. Festa)

CLPS 0500. Perception and Mind.
How do the mind and the brain take physical energy such as light or sound and convert it into our perception of the world? This course examines the behavioral and biological bases of human and animal perceptual systems, including vision, audition, smell, taste, and touch. Particular emphasis is placed on high-level perception and how it relates to other cognitive systems.
Spring CLPS0500 S01 15731 TTh 10:30-11:50(13) (J. Song)

Visual art can be viewed as an exploration of perceptual questions. This course considers the representation of space and time in painting and film from the viewpoint of the science of visual perception. Topics include Renaissance linear perspective, picture perception across cultures, color,
form, shape, abstraction, how film editing constructs events, and why
Godzilla looks phony. Slide lectures and visual exercises. LILE
Spr CLPS0510 S01 24973 TTh 11:00-11:50(04) (W. Warren)

CLPS 0610. Children’s Thinking: The Nature of Cognitive
Development
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. LILE
Fall CLPS0610 S01 15733 MWF 11:00-11:50(04) (J. Morgan)

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 15736 TTh 9:00-10:20(08) (B. Hayden)

CLPS 0710. The Psychology and Philosophy of Happiness.
The course explores four fundamental questions about happiness: What is
happiness—pleasure, life satisfaction, something else? How is happiness
achieved—what are the myths and realities about what conduces to
happiness? Can happiness be achieved—are we naturally well suited to
be happy? Why pursue happiness—is it sufficient, or even necessary, for
a good life? The course examines classic contributions from philosophy
and psychology, the two disciplines that have studied happiness most
extensively. Team-taught by professors from both philosophy and
psychology, it invites students to compare and combine both approaches.
Spr CLPS0710 S01 26077 MWF 2:00-2:50(07) (J. Krueger)

CLPS 0900. Quantitative Methods in Psychology.
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 15737 MWF 10:00-10:50(03) (L. Welch)
Spr CLPS0900 S01 24975 MWF 10:00-10:50(03) (J. Wright)

CLPS 1150. Memory and the Brain.
This class is for undergraduate and beginning graduate students of
psychology, cognitive neuroscience, and biology interested in to biological
research on memory. There are four parts: 1) how neurons are connected
and communicate, 2) fundamental issues in the psychology of memory,
3) memory localization in the brain, and 4) consolidation of memory
into a permanent store. The course is designed to be accessible to
students in a variety of disciplines, but requires background in psychology,
cognitive science, or neuroscience. The class will include lecture, writing
assignments, and presentations of primary research articles. Prerequisite:
CLPS 0110, 0220, 0440, 0200, or NEUR 0100.
Fall CLPS1150 S01 15738 TTh 1:00-2:20(10) (R. Burwell)

CLPS 1180A. Canine Behavior.
Topics covered in this seminar include canine perception, cognition,
vocalization, and social behavior. The behavior of wolves and other
wild canids is explored to facilitate our understanding of dog behavior.
Observational field work is required in addition to regular class meetings.
Prerequisites: CLPS 0050E, CLPS 0100, CLPS 0110, CLPS 1191, or
CLPS 1192. Not open to first year students.
Fall CLPS1180A S01 15887 TTh 2:30-3:50(11) (R. Colwill)

CLPS 1191. Animal Behavior Laboratory.
This course is designed for students with a serious interest in animal
behavior research. Topics include methods in lab and field research,
enrichment programs for captive species and conditioning procedures for
managing zoo and shelter animals. Prerequisites: CLPS 0900 (COGS/ PSYC 0900). Enrollment limited to 12; not open to first year students.
Fall CLPS1191 S01 15889 M 1:00-1:50(06) (R. Colwill)

A laboratory course on the prediction, control, and explanation of the
behavior of animals in simple environments. Prerequisite: CLPS 0900
(PSYC/COGS 0900).

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
CLPS 1341. Lexical Semantics.
The representation of word meaning and generalizations about the way in which meanings are packaged into words. Topics include: "fuzzy" meanings, natural kind terms, how word meanings are decomposed. Special emphasis on how temporal properties are encoded, on the status of "thematic relations," and on how the fine-grained structure of word meanings impacts on the syntax. Recommended prerequisite: CLPS 0030 (COGS 0410).

Fall CLPS1341 S01 15743 TTh 2:30-3:50(11) (P. Jacobson)

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

Spr CLPS1360 S01 25505 TTh 10:30-11:50(09) (U. Cohen Priva)

CLPS 1381A. Topics in Phonetics and Phonology: How Phonetics Shapes Phonology.
Rule-based and constraint-based descriptions of phonological systems predict the existence of phenomena that are never observed in human language. What constrains which sound systems, rules and phonological constraints would exist in a language? What makes a phonological rule natural and other rules unnatural? We will discuss several different approaches that integrate phonetic insights into phonology.

Fall CLPS1381A S01 16044 M 3:00-5:30(15) (U. Cohen Priva)

CLPS 1389. Discourse Processing.
Over the last decades psycholinguists have converged on a generally accepted framework for describing how humans process language at the sentence level. Much less is understood, however, about processing at the discourse level, where multiple sentences are understood to form a coherent whole. In this course we take an in-depth look at the question of discourse processing. We begin with a review of early models of discourse and narrative structure, turning next to findings from the sentence processing literature which implicate discourse structure. We consider both behavioral and neuro-imaging data in a critical analysis of past and current theories.

Spr CLPS1389 S01 25026 M 3:00-5:30(13) 'To Be Arranged'

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

Spr CLPS1390 S01 25102 TTh 1:00-2:20(10) (S. Andereis)

CLPS 1400. The Neural Bases of Cognition.
Research using animal models has informed and guided many of the recent advances in our understanding of the brain mechanisms underlying cognition. This seminar course will address topics related to animal models of human cognition. Students learn about how different aspects of the neural bases of cognition are modeled in animals by reviewing the primary research literature. The course is divided into three sections, each addressing one animal model in one cognitive domain. Selected papers will emphasize learning, memory, and attention, but may also address other aspects of cognition, for example decision-making, or cognitive impairment associated with neuropathology or aging. Prerequisite: CLPS 0040 (COGS 0720), CLPS 0400 (PSYC 0470), or NEUR 0010; and CLPS 1190 (PSYC 1030), CLPS 1191 (PSYC 1450), CLPS 1192 (PSYC 1200), or NEUR 1600; or instructor permission. Enrollment limited to 20. Not open to first year students.

Spr CLPS1400 S01 24985 M 2:00-4:30(07) (R. Burwell)

CLPS 1420. Cognitive Neuropsychology.
This seminar will explore the effects of brain damage on cognitive function. The goal of cognitive neuropsychology is to understand the effects of brain pathology within the context of modern theories of cognition, and to draw inferences about normal or intact cognitive function from patterns of dysfunction observed with brain pathology. Selected papers will focus on research investigations of brain damaged populations within one or more areas of cognition (e.g., perception, memory, or attention) that address topics of current relevance. Pre Requisites: CLPS0040 or CLPS0200 or CLPS0400. CLPS0900 is strongly recommended.

Spr CLPS1420 S01 25328 Th 4:00-5:30(17) (E. Festa)

CLPS 1480B. Cognitive Aging and Dementia.
This seminar examines the cognitive changes associated with normal aging and age-related dementia (e.g., Alzheimer’s Disease). Topics covered will include changes in the neurocognitive systems mediating memory, perception, and attention. The course is primarily intended as an advanced seminar for junior and senior concentrators in Psychology, but is also intended for other students interested in aging and the neuropsychology of cognition. Recommended prerequisites: An introductory course in cognitive neuroscience (CLPS 0400 (COGS 0720), CLPS 0400 (PSYC 0470)) or permission of the instructor. Preference will be given to senior concentrators in Psychology and related areas. Enrollment limited to 20.

Fall CLPS1480B S01 15745 TTh 1:00-2:20(10) (E. Festa)

CLPS 1480F. Topics in Cognitive Neuroscience: Cognitive Neuroscience of Memory.
This seminar will provide an in-depth treatment of advanced topics in the cognitive neuroscience of memory. The course will draw on primary studies using empirical and theoretical approaches to address current problems in memory. Meetings will feature student presentations and discussion centered around weekly readings.

Fall CLPS1480F S01 16305 M 3:00-5:30(15) (D. Badre)

This course will train students in the practice and use of functional magnetic resonance imaging (fMRI) as a cognitive neuroscience methodology. Topics covered include MRI physics, the physiological basis of the BOLD signal, experimental design, data collection, statistical analysis, and inference. A practical component of the course includes the opportunity to collect and analyze fMRI data at the Brown MRF. Prerequisites: CLPS 0040 (COGS 0720), CLPS 0400 (PSYC 0470), or NEUR 0010; and CLPS 0900 (PSYC/COGS 0090), or instructor permission. Enrollment limited to 20.

Fall CLPS1490 S01 15746 TTh 2:30-3:50(11) (D. Badre)

CLPS 1491. Neural Modeling Laboratory.
Numerical simulations of cognitively oriented nervous system models. Discussion of parallel, distributed, associative models: construction, simulation, implications, and use. Prerequisites: MATH 0090, 0100, or equivalent; knowledge of a computer language; some background in neuroscience or cognitive science is helpful.

Spr CLPS1491 S01 24984 MWF 11:00-11:50(04) (J. Anderson)

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 0020 (COGS 0010) or CLPS 0200 (COGS 0420); and CLPS 0410 (PSYC 0750) or NEUR 0010.

Fall CLPS1492 S01 15747 TTh 10:30-11:50(13) (M. Frank)

CLPS 1500. Ecological Approach to Perception and Action.
The ecological approach treats perceiving and acting as activities of agent-environment system rather than an isolated "mind," and offers
CLPS 1510. Psychology of Hearing.
How do we hear the world around us? In this course, we will examine basic phenomena underlying human auditory perception, focusing on topics such as masking, pitch perception, sound localization, and auditory scene analysis. We will discuss theories of hearing, experimental techniques to evaluate hearing, and the impact of age-related declines in hearing on human psychology. Open to juniors and seniors. Prerequisite: NEUR 0650 or equivalent, or instructor permission.
Fall CLPS1510 S01 15749 M 10:30-11:50(13) (W. Warren)

CLPS 1520. Computational Vision.
An introduction to computational models of biological vision summarizing traditional approaches and providing experience with state-of-the-art methods. We will sample topics from low- and mid-level vision including fundamental aspects of image, stereo, motion, surface, and color processing to high-level vision including object and action recognition as well as scene understanding. Connections to contemporary research in computer vision and computational neuroscience will be emphasized highlighting how computational models may motivate the development of new hypothesis for the design of experiments in visual perception. Prerequisite: comfort with basic linear algebra and at least one introductory course in Computer Science or programming, or instructor permission.
Fall CLPS1520 S01 24988 Th 10:30-11:50(09) (T. Serre)

CLPS 1530. 3D Shape Perception.
Our ability to move in the environment, recognize and grasp objects, depends enormously on the capacity that the brain has in organizing the visual stimulation in the perceived 3D layout. 3D objects in the world project on the human retina flat images. How does the brain re-transform these flat images into a 3D representation? Enrollment limited to 40.
Fall CLPS1530 S01 15750 Th 4:00-6:30(02) (F. Domini)

CLPS 1570. Perceptual Learning.
This course will focus on perceptual learning and visual plasticity. The goal of this course is to understand the mechanisms of visual perceptual learning and visual and brain plasticity. Perceptual learning is defined as long-term performance improvement as a result of visual experiences. Enrollment limited to 20. Recommended prerequisites: CLPS 1291, 1500, and 1520.
Spr CLPS1570 S01 25032 F 3:00-5:30(15) (T. Watanabe)

CLPS 1571. Visual Consciousness.
This course will focus on consciousness related to visual perception. The goal of this course is to understand the neural correlates of visual consciousness.
1) We will learn about basic neural mechanisms of visual processing and other brain functions.
2) We will discuss philosophical and neuroscientific models of visual consciousness.
3) We will examine the roles of attention, reward, and memory in visual consciousness.
4) We will evaluate recent neuroscientific experiments with animals and humans and their potential to advance the research of consciousness.
Fall CLPS1571 S01 16200 F 3:00-5:30(14) (T. Watanabe)

CLPS 1580D. Seminar in Spatial Cognition.
How do we perceive, learn, and interact with space? This seminar explores what humans and other animals know about their spatial environments, how they use this knowledge to navigate, and its sensory and neural basis. We will investigate how desert ants find their way home, what your cognitive map of campus is really like, how robots navigate, differences in spatial ability, and the effect of GPS on human wayfinding.
Spr CLPS1580D S01 25635 M 3:00-5:30(13) (W. Warren)

CLPS 1590. Visualizing Vision.
This course provides hands-on experience in studying vision using computer graphics combined with visual psychophysics. Students will gain a better understanding of how images are formed, how one employs properties of image formation in the experimental study of vision, and how the perception of complex images function in biological systems. Labs will rely on matlab and several computer graphics packages (e.g. Lightwave).
Enrollment limited to 20.
Spr CLPS1590 S01 24990 Th 1:00-2:20(10) (F. Domini)

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)
Spr CLPS1610 S01 24991 M 3:00-5:30(13) (D. Sobel)

CLPS 1650. Child Language Acquisition.
All normally developing children acquire language, yet there is little agreement about how this takes place. This class explores the course of language acquisition from birth to babbling and first words to the use of complex syntax, discussing philosophical, theoretical, and methodological approaches to the problem. Includes practical experience analyzing child language data. Prerequisite: CLPS 0030 (COGS 0410) or CLPS 0800 (COGS 0450), or permission of the instructor.
Spr CLPS1650 S02 25052 MWF 12:00-12:50(05) (J. Morgan)

CLPS 1680A. Topics in Development: Social Learning.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 1821. Neuroimaging and Language.
Examines neuroimaging approaches to language processing including IMRI, PET, TMS, and ERP. Consideration of the neural systems underlying speaking and understanding. Topics include neural basis of speech, lexical/semantic, and syntactic processing, mirror neurons and language, multisensory integration, meanings of words, literacy, and special populations. Recommended: either NEUR0010, CLPS 0020 (COGS0010) or CLPS 0800 (COGS0450) and one of the following: CLPS 0040 (COGS0720), CLPS 0400 (PSYC0470), CLPS 0410 (PSYC0750), CLPS 1820 (COGS1480), CLPS 1822 (COGS1500), NEUR1030, NEUR1660, or by permission.

CLPS 1880. Topics in Psycholinguistics: The Linguistic Relativity Hypothesis.
Linguistic Relativity (i.e., the "Sapir/Whorf hypothesis") posits that properties of the language one speaks shape one's cognition; such a position has also been quite controversial. This seminar provides a critical look at the debate. We will try to delineate different actual and potential versions of the hypothesis, and will examine how experimental work, cross-linguistics studies and an understanding of concepts in linguistic theory can be used to shed light on the debate. Classic and recent literature will be considered, with an eye to formulating ways in which specific versions of the hypothesis could be further tested. Pre Requisites: At least two courses above the 1000 level in linguistic semantics, linguistic pragmatics, language processing, and/or cognition.

Examines general philosophical and theoretical issues that cut across cognitive science. Each student writes a substantial paper on a topic in cognitive science. Required of cognitive science concentrators. Enrollment limited to concentrators in the 7th semester or beyond, and, by permission, to others who have significant course background in cognitive science. 

Independent study or directed research in cognitive science. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Instructor permission required.

Required of all ScB concentrators and Honors students in psychology. Instructor permission required. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Introduces students to the CLPS Department and the University; provides a brief history of the disciplines, philosophical foundations, and ethical treatment of human subjects; provides professional training, such as preparation of CV and research statement, practice in grant writing, and foundations in scientific writing and presentation; and supports students’ early stages of developing a first-year project.

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 2400. Core Topics in the Neural Basis of Behavior.
Seminar on comparative aspects of brain evolution and function, with implications for behavior. Open to graduate students only.

CLPS 2450. Exchange Scholar Program.

CLPS 2500. Core Topics in Perception.
No description available. Open to graduate students only.

CLPS 2700. Core Topics in Social Psychology.
A survey of classic and contemporary research in social psychology, including attitude formation and change, person and self perception, stereotyping, and intergroup relations. Open to graduate students only.

CLPS 2800. Core Topics in Language.
No description available. Open to graduate students only.

CLPS 2906. Experimental Design.
The course designed for students at the intermediate level or above and will cover t-tests, power analysis, correlation, simple and multiple linear regression, logistic regression, analysis or variance, non-parametric tests, randomization and bootstrapping, among others. Instructor permission required. Open to graduate students only.

CLPS 2908. Multivariate Statistical Techniques.
This course covers the basic multivariate techniques currently used in psychology and related sciences: multiple regression, logistic regression, principal components and factor analysis, multivariate analysis of variance, discriminant function analysis, and log-linear analysis. Students will learn these techniques' conceptual foundations, their proper selection for a given data set, and the interpretation of computer output from statistical analysis packages (primarily SPSS). Enrollment limited to 20 graduate students.

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

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

Linguistics

LING 0030. Introduction to Linguistic Theory (CLPS 0030).
Interested students must register for CLPS 0030.

LING 1310. Introduction to Phonological Theory (CLPS 1310).
Interested students must register for CLPS 1310.

LING 1330. Introduction to Syntax (CLPS 1330).
Interested students must register for CLPS 1330.
LING 1341. Lexical Semantics (CLPS 1341). Fall LING1341 S01 16269 Arranged 'To Be Arranged'

LING 1381A. Topics in Phonetics and Phonology: How Phonetics Shapes Phonology (CLPS 1381A). Fall LING1381A S01 16271 Arranged 'To Be Arranged'

LING 1389. Topics in Language Processing (CLPS 1389). Interested students must register for CLPS 1389.

LING 1390. Linguistic Field Methods (CLPS 1390). Interested students must register for CLPS 1390.

LING 1880C. Topics in Psycholinguistics: The Linguistic Relativity Hypothesis (CLPS 1880C). Interested students must register for CLPS 1880C.

Humanities

HMAN 1970K. Law and Religion. In an arguably "post-secular" age, conflicts over the relationship between religion and law have moved to the forefront of international debate. In our multicultural/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/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. Enrollment limited to 20 juniors, seniors, and graduate students.

Spr HMAN1970K S01 25583 Arranged 'To Be Arranged'

HMAN 1970Q. Working (on) Concepts in the Humanities. Concepts are usually thought of as cognitive tools, constituents of thought used for categorization/inference/memory/learning.decision-making. We shall think about them as effects of a language game whose rules change across genres, media, and discursive regimes. Looking for these rules and analyzing them comparatively, we shall ask how concepts are formed/displayed/formed, when do we need them/can we do without them. We shall read philosophers (Plato, Descartes, Kant, Heidegger, Wittgenstein, Foucault, Derrida, and Deleuze), intellectual historians (Koselleck, Skinner), literary works (Kleist, Kafka, Musil), and look at some conceptual art. Advanced juniors and seniors graduate students welcome. Enrollment limited to 20.

Spr HMAN1970Q S01 25853 T 4:00-6:30(16) (A. Ophir)

HMAN 1971C. History, Theory and Practice of Storytelling Using Stereoscopic ("3D") Motion Pictures. This course will support/enhance Brown's tradition in the Humanities by sharpening the focus on interdisciplinary/comparative work across cultural/linguistic boundaries. Can science/technology/medicine foster the presentation of innovative work in humanities by bringing 3D to New Media? Why do some cultural values dictate genres typically produced in 3D? What were the origins of 3D motion pictures/how might new technologies affect the distribution/visualization of 3D projects? How can 3D enrich relations between humanities and studio/performing arts? We provide Brown students with an opportunity to establish a foundation for analyzing/telling stories using stereoscopic tools, and receive basic technical experience using 3D small-format video equipment.

Fall HMAN1971C S02 16662 M 3:00-5:30(15) (T. Bogosian)

HMAN 1971E. Cross-Cultural Approaches to Death and Dying. Despite the universality of death, human responses to it are incredibly varied. Because the significance of death and dying is deeply socially constructed, this course situates biological, medical, and psychological conceptions of death and dying in conversation with the religious and ethical perspectives that have also informed human responses to death and dying in different cultural contexts. This interdisciplinary course—team-taught by a psychologist, a scholar of religion, and two end-of-life care physicians—will facilitate a more informed understanding of death-related cultural practices as well as a more skilled response to death-related decisions that arise in the practice of medicine and in life. Enrollment limited to 20 students in Medical Humanities and graduate Humanities fields. Honors undergraduates and PLMEs may enroll with instructor permission.

Fall HMAN1971E S01 16333 W 3:00-5:30(17) (W. Britton)

HMAN 1971F. World of Walden Pond: Transcendentalism as a Social and Intellectual Movement. World of Walden Pond 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.

Fall HMAN1971F S01 16334 W 4:00-6:30(02) (K. Sacks)

HUMANITIES

HMAN 1971G. Digital Media and Virtual Performance. This seminar investigates digital media practices at the intersection of virtual and embodied experience, exploring overlapping genres of play, performance, pedagogy, and participatory culture. Topics include digital games, viral videos, online music and dance lessons, and the performative aspects of virtual communities. Theoretical approaches will draw on scholarship in media ethnography, performance studies, human-computer interaction studies, gender studies, and ethnomusicology. We will give equal attention to production, circulation, and reception practices, and consider their contemporary convergence. The course requires critical engagement with a diverse range of media, genres, and cultural contexts, encouraging students to examine their own media practices.

Fall HMAN1971G S01 16335 W 3:00-5:30(17) (K. Miller)

HMAN 1971H. Skin Deep: Reading Race, Reading Form. There has been a trend to move away from symptomatic/paranoid readings of literature. In 2009, Stephen Best/Sharar Marcus pitched this most provocatively in their call for surface readings, which deals with what is manifest/present in texts, rather than the latent/concealed. We hope to get beyond politically-instrumental readings of literature/to thinking in a sustained fashion about language/form/aesthetics of race. The seminar will divide between reading histories/theories of race (obession with physical variation as race and technologies of seeing that we use to read race) working through a range of post-nationalist works of literature/sharpening our understanding of reading as a meaning-making event.

Fall HMAN1971H S01 16373 Th 4:00-6:30(02) (R. Rodriguez)

HMAN 1971I. Queer Theories. This course will engage with possibilities and problems of queer theorizing, from the emergence of queer theory, through its (precarious) institutionalization, to its multiply interventions. Rather than understanding queer theory as a unified approach, we will consider the variety of queer theoretical work as well as challenges within queer analysis itself. Given this focus on queer theories, we will draw from a number of disciplines, paying particular attention to debates regarding epistemology and ethics, politics and aesthetics, race and gender, sociality and anti-sociality, identifications and disidentifications, publics and privates, temporarilites and locations, and global and local conjunctures and disjunctures.

Spr HMAN1971I S01 25814 W 3:00-5:30(14) (L. Joyntich)

HMAN 1971J. Ultimate Dialogyality: Thinking With Bakhtin. Among the most startling claims of Mikhail Bakhtin's writings on literature is his claim that in Dostoevsky's work we are dealing with "an ultimate dialogyality, ... a dialogicality of the ultimate whole." This course will examine the philosophical implications of this claim, reading Bakhtin's work alongside Kierkegaard, Flusser, Deleuze, Rancière, amongst others. Advanced juniors and seniors; graduate students.

Spr HMAN1971J S01 25815 W 3:00-5:30(14) (T. Bewes)

HUMANITIES

HMAN 2970F. Law, Nationalism, and Colonialism. This seminar explores the internationalism of the past century in terms of its relationship to separatist nationalism, anti-colonialism, and religious
radicalism. It takes as its point of departure the dramatic political, cultural, and intellectual transformations that followed in the wake of World War I. A guiding hypothesis of the seminar is that internationalism cannot be understood apart from its complex relationship to “identity” broadly conceived — identity of local/transnational groups as well as the identity of internationalists themselves. Readings will be drawn from law/cultural studies/politics/postcolonial theory. Enrollment limited to 20 graduate students. Advanced juniors/seniors by permission only.

**HMAN 2970L. History and Theory of Catastrophes.** This seminar proposes a philosophical history of catastrophes (large-scale disasters) and uses it as a vantage point for questioning contemporary critiques of modernity/secularization. Starting from Biblical narratives of God-made disasters, we will follow God’s role in the way north-western societies interpret/cope with catastrophes. Reading/viewing documentation of catastrophes from Defoe’s Journal of the Plague ‘Year to Cooper’/ Block’s/Spike Lee’s reports on Hurricane Katrina, we will examine the emergence of the state as a major actor responsible for preparing for catastrophes/mitigating their effects, but often also for their generation, and discuss the globalization of catastrophes and with catastrophes as special sites of globalization. Enrollment limited to 20.

**Comparative Literature**

**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.

**Spr** HMAN2970S01 25699 T 4:00-6:30(16) (A. Ophir)

**COLT 0510L. What is Tragedy?** Introduction to tragedy. Readings may include Sophocles, Shakespeare, Hegel, Chekhov, Chan-wok Park, and Jia Zhangke. Enrollment limited to 20 first year students. FYS

**Fall** COLT0510S01 15126 MW 12:00-12:50(12) (I. M. Shafrankina)

**COLT 0510N. Shakespeare (ENGL 0310A).** Interested students must register for ENGL 0310A.

**Spr** COLT0510S01 25660 Arranged 'To Be Arranged'

**COLT 0610C. Banned Books.** An examination of literary censorship in which we read various texts forbidden for putatively violating social, religious, and political norms in particular historical and cultural contexts. We also analyze the secondary literature surrounding the banning of these ostensibly “dangerous” texts in order to theorize questions and assumptions about the power of art and the ironies generated by these debates.

**Spr** COLT0610C0301 24456 TTh 2:30-3:50(11) (M. Viswanathan)

**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 influenced by issues of class, gender and race, and that the literary representation of these matters changes drastically over time. Texts from the Middle Ages to the present; authors drawn from Chrétiens de Troyes, Quevedo, Prévost, Balzac, Brontë, Twain, Faulkner, Vesaas, Rhye, Satrapi and Foer. Enrollment limited to 20 first year students. FYS

**Fall** COLT0610D0301 15134 TTh 1:00-2:20(10) (A. Weinstein)

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

**Spr** COLT0610Q0301 25061 MWF 1:00-1:50(06) (E. Muhanna)

**COLT 0610R. The Myth of the Seven: From Aeschylus to Kurosawa (CLAS 0950).** Interested students must register for CLAS 0950.

**Fall** COLT0610R0301 16314 Arranged 'To Be Arranged'

**COLT 0610T. Chinese Empire and Literature.** This course offers an introduction to early imperial Chinese literature and to comparative approaches to colonization, sinicization, and cross-cultural heritage. Readings include China’s most famous work of historical literature, Sima Qian’s Shiji; poems, essays, and visual materials from the Qin-Han to Tang periods; and contemporary representations of early empire in Chinese films. Knowledge of classical Chinese welcome but not required.

**Fall** COLT0610T S01 16514 TTh 10:30-11:50(09) (T. Chin)

**COLT 0710L. 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 paradisical Antilles, the U.S. Southwest, Tenechotlitan/Mexico City, Lima, Potosí. We read European, indigenous, and Creole writers, including: Columbus, Las Casas, Bernal Díaz, Aztec poets, Guaman Poma, Sor Juana. In English. Excellent preparation for study abroad in Latin America. Enrollment limited to 20 first year students. FYS WRT

**Fall** COLT0710L0301 15142 F 3:00-5:30(14) (S. Merim)

**COLT 0710N. A Comparative Introduction to the Literatures of the Americas.** Considers the common links between the diverse literatures of North and South America, approached in relation to one another rather than to Eurocentric paradigms. Focuses on the treatment of such topics as the representation of the past and the self, the role of memory and the imagination, the nature of literary language, and the questions of alienation, colonialism and post-colonialism, communication versus silence, and fiction versus history in the works of selected writers from North and Latin America, including García-Márquez, Faulkner, Cortázar, Allende, Lispector, Morrison, Doctorow, Rosa, and DeLillo. Enrollment limited to 15 first year students. FYS WRT

**Fall** COLT0710NS01 15145 TTh 2:30-3:50(11) (L. Valente)

**COLT 0710Q. Odysseus in Literature.** Examines the reincarnations of the Homeric figure of Odysseus in contemporary literatures. It approaches the texts historically, culturally and literary. How is the Odyssey myth altered from culture to culture (Greece, Rome, Ireland, the Caribean), how is it re-adapted in different historical periods, how does Odyssey change as the genre changes (epic, poetry, the novel, film, drama)?

**Fall** COLT0710Q0301 16757 MWF 1:00-1:50(06) (E. Calychos)

**COLT 0710U. Leaves of Words: A Survey of Japanese Literature.** While Zen, sushi and animé have become commonplaces in contemporary American parlance, Japanese literature and culture remain static enigmas, conjuring up visions of stolid-faced samurai, cherry blossoms, and post-modern dystopias. In this survey of Japanese literary works from the 8th century to the present, we will examine the development of canons of literature, both poetry and prose, and aesthetics in specific social contexts in Japanese cultural history. Also, we will consider their re-evaluations in subsequent eras, raising questions about the stability and continuity of such traditions. In addition to readings, we will briefly look at film, manga and anime.

**Fall** COLT0710U0301 15128 MWF 2:00-2:50(07) (M. Viswanathan)

**COLT 0710X. Fan Fiction.** What is imitation (sincerest form of flattery) to literary canons? Vergil’s Aeneid appropriated Aeneas from the Iliad, Joyce’s Ulysses modernized Odyssey. Admiration as a source of inspiration is a major force in the evolution of fiction. “Fan Fiction” explores intriguing characters in greater detail and new contexts, allowing them new lives in contemporary imagination. This course presents pairs of works that are explicitly linked by the intimate relation of imitation. Classic readings will be paired with their mostly contemporary updates, including Pride and Prejudice/Muder...

Spr COLT0710X S01 24443 MWF 10:00-10:50(03) (D. Levy)

Three women, a political theorist, a novelist and an anonymous author question WWll. They record and question war’s experiences and memories, its unfolding and its end, its continuation and after effects. They are interested in what was left of public life, intimacy, friendship, womanhood, survival, liberation and invent forms of promises and forgiveness. We will read Duras’ memoir on the war and her screenplay for Hiroshima mon amour, Arendt’s Origins of Totalitarianism, Eichmann in Jerusalem and her critique of Zionism, and the diary of a forsaken German woman in post war Berlin, a devastated city under Soviet occupation.

Spr COLT0710Y S01 24457 TTh 2:30-3:50(11) (A. Azoulay)

COLT 0810E. Confession, Autobiography, Testimony.
Does writing a life give it coherence and veracity, or create a fiction? What is the relationship between first-person narrative and truth, and between authorship and authority? How does the form of a first-person text -- a religious confession, a personal journal, a political denunciation, a collective memoir -- affect the telling? Must the reader of such an account be “you” to the teller’s “I”, and how does the intimacy of this relationship shape the experience of reading? In this course, we test the limits of self-narration against ethical and physical limits, reading first-person narratives that purport to be non-fictional. We will read accounts of different experiences -- social and sexual transgression, suffering and perpetrating violence, slavery -- and explore both the possibilities and duplicities of writing as “I”.

Spr COLT0810E S01 24447 MWF 2:00-2:50(07) (E. Whitfield)

COLT 0810F. Desire and the Marketplace.
Studies love and desire as the interplay between men, women, and money in mercantilized societies, in seventeenth century Japan, eighteenth century England, nineteenth century France, and twentieth century Africa. Novels featuring female protagonists by Saikaku, Defoe, Flaubert, Emcheta and Bâ, readings in economic and feminist theory, and visual art--Japanese woodcuts, Hogarth, nineteenth century French painting, West African arts. LILE

Fall COLT0810F S01 15124 MWF 9:00-9:50(16) (M. Viswanathan)

COLT 0810H. How Not to be a Hero. Shakespeare wrote two great, intense plays about ancient characters who were irredeemable failures: Coriolanus and Timon of Athens. What can failure teach us? What kind of strength does a language of failure possess? We will also read the ancient sources themselves (Livy, Lucian, Plutarch), and modern adaptations of these stories (Bertolt Brecht, T. S. Eliot, Günter Grass, Wyndham Lewis).

Fall COLT0810H S01 15130 TTh 9:00-10:20(08) (K. Haynes)

Interested students must register for ENGL 0700F.

Spr COLT0811A S01 25647 Arranged ‘To Be Arranged’

COLT 0811B. Believers, Agnostics, and Atheists in Contemporary Fiction (JUDS 0050A).
Interested students must register for JUDS 0050A.

Fall COLT0811B S01 16308 Arranged ‘To Be Arranged’

COLT 0811D. The Bible as Literature (JUDS 0830).
Interested students must register for JUDS 0830.

Fall COLT0811D S01 16309 Arranged ‘To Be Arranged’

COLT 0811H. Monuments and Monsters: Greek Literature and Archaeology.
Surveys Greek archaeology from the Bronze Age to the Hellenistic period, and reads Greek literature roughly contemporary with the archaeological period surveyed, with an emphasis on epic and drama. No previous knowledge or prerequisites needed.

Spr COLT0811H S01 25443 MWF 9:00-9:50(02) (M. Jerull)

COLT 0811I. Classical Mythology and the Western Tradition.
Reads classical texts that expound the fundamental mythological stories and elements of the Western tradition, then will read selected texts from the Renaissance through the twentieth century that utilize these myths. Ancient texts covered will 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. LILE

Fall COLT0811I S01 15125 MWF 10:00-10:50(03) (M. Jerull)

COLT 0811W. The Myth of Venice in Literature: Memory, Desire and Death.
This course will explore the myth of Venice in literature: focusing on the topoi of Venice in the genre of travel writing, we will study the theme of liberty and decadence associated with Venice’s theatrical and political culture. Readings will include Shakespeare’s The Merchant of Venice, excerpts from De Brosses’s Travels through Italy, Goldoni’s Memoirs, Rousseau’s Confessions, and Casanova’s Histoire de ma vie. We will also study the influence of these accounts on the Romantic poets (Goethe, Wordsworth, Byron, Shelley, and Musset), and modernity (Henry James’s The Aspern Papers, Thomas Mann’s Death in Venice, Donna Leone’s Death at the Fenice).

Spr COLT0811W S01 25446 TTh 9:00-10:20(08) (O. Mostefai)

COLT 0811X. The Dead and the Living (ENGL 0710D).
Interested students must register for ENGL 0710D.

Fall COLT0811X S01 16315 Arranged ‘To Be Arranged’

COLT 0811Y. Great Jewish Books (JUDS 0681).
Interested students must register for JUDS 0681.

Fall COLT0811Y S01 16980 Arranged ‘To Be Arranged’

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

Fall COLT1210 S01 15127 MWF 1:00-1:50(06) (Z. Song)

COLT 1310E. A Classical Islamic Education: Readings in Arabic Literature.
This seminar introduces students to the essential texts of a classical education in the Arabic-Islamic world. What works of poetry, literary criticism, belletristic prose, biography, geography, history, and other disciplines were considered staples of a well-rounded education in medieval Baghdad, Cairo, Damascus, or Fuz? Emphasis will be placed on close and patient readings of primary sources. At least two years of Arabic required.

Fall COLT1310E S01 15141 W 3:00-5:30(17) (E. Muhanna)

COLT 1310G. Silk Road Fictions.
Today the Silk Road is a metaphor of premodern East-West exchange. Through a range of literary texts and cultural sites that are now associated with the Silk Road we will explore problems in cross-cultural comparative reading, translation, and concepts of cosmopolitanism. What is gained or lost when we read classical Chinese, Greek, or English texts outside national literatures or modern Area Studies frameworks?

Spr COLT1310G S01 25743 MWF 1:00-1:50(06) (T. Chin)

COLT 1410Z. Perspectives on Shakespeare’s Comedies.
We will explore Shakespeare’s comedies in connection with perspectives for thinking about comedy as a genre and a mode. Plays may include Love’s Labor’s Lost, Midsummer Night’s Dream, Measure for Measure, All’s Well that Ends Well, Winter’s Tale, and Cymbeline. Other readings may include Montaigne, Frey, Hegel, Nietzsche, and Freud.

Fall COLT1410Z S01 15795 MW 3:00-4:20(17) (P. Savel)

COLT 1411A. Shakespeare and Money.
In an attempt to practice the art of what Nietzsche once called “slow reading,” the course is dedicated to reading The Merchant of Venice with patience and attention. We will attempt a reading that is both conceptually acute and responsive to literary form. Our detailed examination of the play will also be wedded to particular thematic concerns that emerge from the
work, including problems of money, violence, and the nature of human obligation.

**COLT 1420F. Fantastic and Existentialist Literatures of Argentina, Uruguay and Brazil**

Jorge Luis Borges proclaimed that South American writers can "wield all themes" without superstition, with irreverence. This course examines the ways in which 20th century writers from Argentina, Uruguay and Brazil appropriated European fantastic and existentialist fictions, taking them in new directions. Readings, in English or original languages, include Borges, Cortázar, Onetti, Lispector. Prerequisite: previous college literature course(s).

Fall COLT1420F S01 15785 TTh 2:30-3:50(11) (S. Merrim)

**COLT 1420O. Proust, Joyce and Faulkner.**

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

Pr COLT1420OS01 25450 TTh 1:00-2:20(10) (A. Weinstein)

**COLT 1420T. The Fiction of Relationship.**

Explores the manifold ways in which narrative literature sheds light on the relationships that we have in life, both knowingly and unknowingly. The novel form, with its possibilities of multiple voices and perspectives, captures the interplay between self and other that marks all lives. Authors include Laclos, Melville, Brontë, Kafka, Woolf, Faulkner, Borges, Burroughs, Vesaas, Morrison, and Coetzee.

Fall COLT1420T S01 15131 TTh 10:30-11:50(13) (A. Weinstein)

**COLT 1421I. The Paternalistic Thriller and Other Studies in Colonial Fiction.**

The impact of colonialism on European fiction from the rise of empire to its decline and fall, focusing on authors who wrote from direct contact with the peoples of Africa and Asia, such as Rudyard Kipling, Joseph Conrad, T. E. Lawrence, E. M. Forster, and Isak Dinesen. Topics will include romantic images of conquest, imperial ideology in literature, differing attitudes towards acculturation, and the changing symbolism of exotic settings.

Pr COLT1421I S01 24449 M 3:00-5:30(13) (D. Levy)

**COLT 1421I. Modernisms North and South: James Joyce and Roberto Bolano.**

James Joyce's *Ulysses* (1922) and Roberto Bolano's *The Savage Detectives* (1998) are two monuments of modern fiction which bookend the productions of the 20th century. Both are novels about wandering, searching, questioning, and critiquing, and each one maps out distinctive but related forms of engagement with literary tradition, with national articulation, and with aesthetic politics. In the course we will move slowly along the paths carved by each one, tracing the passage from one to another, examining each one's playful, demanding, agonistic engagement with literary traditions, national articulations, and aesthetic politics.

Pr COLT1421IV01 25445 MWF 12:00-12:50(05) (M. Clayton)

**COLT 1421Z. Fiction and the Technology of Deception.**

A major preoccupation of fiction in the last century, especially American fiction, is the figure of the con-man, forger, counterfeiter, or impostor. After reading Melville's *Confidence-Man*, we will turn to several monuments of modern and post-modern fiction, Gaddis' *Recognitions*, Nabokov's *Lolita*, and Gass' *Middle C*. We will consider these works in relation to twentieth-century technologies and pseudo-technologies that were invented to perform or expose deception (such as the lie-detector, the identification of sociopaths, the Turing test, corporate advertising, spin, catfshing), and also in conjunction with long-standing theoretical discussions of authenticity, simulacra, and self-deception.

Pr COLT1421Z S01 24455 TTh 1:00-2:20(10) (K. Haynes)

**COLT 1422B. Fictions of Family in the Enlightenment European Novel.**

This course will study the emergence of the genre of domestic fiction in eighteenth-century Europe with its emphasis on the construction of a family space and the establishment of a domestic economy. We will explore this question through the prism of its dysfunction: focusing on the story of "domestic misfortunes" in its various forms: poor planning, reckless spending, and general mismanagement of money. We will read novels that reflect on the failures to achieve domestic bliss and offer alternatives to ill husbandry: Defoe's *Moll Flanders*, Prévost's *Manon Lescaut*, Richardson's *Pamela*, Fielding's *Joseph Andrews*, and Rousseau's *Julie, ou La Nouvelle Héloïse*.

Fall COLT1422B S01 15783 MWF 11:00-11:50(04) (O. Mostefai)

**COLT 1430H. Poetry, Art, and Beauty.**

What does it mean to be beautiful in poetry and art? How is beauty defined from Plato to the blog? What is aesthetics in relation to beautiful practice? A workshop in the reading of lyric poetry and visual art from cave painting to modernism. The three written exercises on text, image, and aesthetics, with creative practice in translation. No final examination. Texts include Sappho, Plato, Aristotle, Catullus, Horace, Petrarck, Goethe, Kant, Wordsworth, Baudelaire, Rilke, Benjamin, Stevens, Derrida, and Danto. LILE

Pr COLT1430H01 25077 TTh 10:30-11:50(09) (S. Foley)

**COLT 1430T. Leaves of Words: Japanese Poetry and Poetics.**

A historical study of various poetic forms of Japanese poetry (waka) from the 8th-century anthology, the Man'yoshu, to the advent of modern verse, including jyōshi or free verse, in the latter part of the 19th century into the 20th century. Focusses on the relationship of poetry to society, religion, the political implications of waka, and the dominant aesthetic modes governing poetic conventions in different periods.

Pr COLT1430T S01 24451 TTh 9:00-10:20(08) (M. Viswanathan)

**COLT 1440H. The Literature and Cinema of Global Organized Crime (SLAV 1500).**

Interested students must register for SLAV 1500.

Pr COLT1440H01 16558 Arranged 'To Be Arranged'

**COLT 1440I. Light-Writing: Literature – Photography – Philosophy (GRMN 1660M).**

Interested students must register for GRMN 1660M.

Pr COLT1440I S01 25823 Arranged 'To Be Arranged'

**COLT 1440J. Image, Music, Text (ENGL 1762C).**

Interested students must register for ENGL 1762C.

Pr COLT1440J S01 25861 Arranged 'To Be Arranged'

**COLT 1610L. What is Reading?**

The answers to this question will be read—deciphered—in the many "reading scenes" found throughout the history of literature or philosophy. In Plato's *Phaedrus*, reading thus appears caught in a network of desire and power: the dominant role—the "erastes" ("lover") who writes and teaches—and the passive or submissive role—the *eromenos* ("beloved") who reads and learns—are constantly permuted and destabilized. Hobbes' *Leviathan*, Melville's *Moby Dick* and *Billy Budd*, Goethe's and Valéry's *Faust* will lead us to question what we do when we read and reflect upon what could be called a politics of reading.

Pr COLT1610L S01 25654 Th 4:00-6:30(17) 'To Be Arranged'

**COLT 1610M. Twentieth-Century Russian Approaches to Literature: Bakhtin and the Russian Formalists (SLAV 1890).**

Interested students must register for SLAV 1890.

Pr COLT1610M S01 16559 Arranged 'To Be Arranged'

**COLT 1710A. Introduction to Literary Translation.**

This is a workshop course introducing the history and theory of literary translation, with demonstrations and exercises translating poetry and prose. All languages welcome, but students must be proficient to the level of reading literature in the original language. Foreign language through 0600 or permission from the instructor.

Pr COLT1710A S01 15893 Th 9:00-10:20(08) (D. Levy)

**COLT 1710C. Literary Translation.**

The study of translation draws from many fields including linguistics, comparative literature, anthropology, cognitive science, and literary translation. Students interested in translation and related issues: role of the artist, representation of consciousness, weight of the past. Texts include substantial portions of Proust's *Recherche*, Joyce's *Portrait* and *Ulysses*, Faulkner's *Sound and the Fury*, *Light in August* and *Absalom! Absalom!* Prior background in these authors desirable, especially *Ulysses*. Senior Seminar. Reserved for Seniors. Preference given to concentrators in Comparative Literature, English, Literary Arts, Modern Culture and Media, as well as highly qualified seniors in other concentrations. Instructor's approval required. Enrollment limited to 20.

Pr COLT1710C S01 24449 M 3:00-5:30(13) (D. Levy)
studies. While we consider theories of translation and particular works, students embark on a semester-length translation project that includes writing a critical introduction. Translation exercises from various languages, oral presentations, discussions of readings, and a midterm draft of a critical essay are requisite stations along the path to the manuscript in translation. Enrollment limited to 15.

Spr COLT1710C S01 25856 W 3:00-5:30(14) (F. Gander)

**COLT 1810I. Gates of Asia.**
An exploration of the growth of European knowledge of Asia from the rise of the Mongol empire through the Great Game and its aftermath. Primary sources include three kinds of accounts provided by travelers who set their hearts on Asian exploration: personal narratives, official reports and dispatches, and scholarly studies of the exotic cultures. Enrollment limited to 20.

Fall COLT1810I S01 15138 Th 4:00-6:30(02) (D. Levy)

**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.

Spr COLT1810P S01 24452 TTh 10:30-11:50(09) (A. Weinstein)

**COLT 1811T. Levantine Cities: Alexandria, Istanbul, Athens.**
Explores the literary and filmic imagination of three Eastern Mediterranean cities, Alexandria, Istanbul, and Athens. It examines the history, culture and politics of these cities and the ways in which they emerge in literature, film, poetry and travelogues. How is the city defined in these works? How are social tensions addressed, such as those between Greeks and Turks or between Christians, Muslims and Jews? How are thematic and historical issues resolved, such as those involving antiquity and modernity, tradition and modernization, colonialism and nationalism, religion and secularism? How are these cities defined in the works of western writers? Enrollment limited to 30. DPLL

Fall COLT1811T S01 16760 MWF 12:00-12:50(12) (E. Calicchios)

**COLT 1811Y. Genius and Melancholia in the Renaissance.**
Explores Renaissance accounts of genius, genial inspiration, and melancholia, and their accompanying ideas of intellect and immortality. Primary materials include Dürer, Montaigne, Rabelais, Ficino, Ariosto, Erasmus, Saint Teresa and Luther. Secondary or contemporary texts include Warburg, Panofsky, Saxl, Klibansky, Wind, Benjamin, Kierkegaard, and Sebald.

Spr COLT1811Y S01 24459 W 3:00-5:30(14) (P. Saval)

**COLT 1812U. Queer Relations: Aesthetics and Sexuality (ENGL 1900R).**
Interested students must register for ENGL 1900R.

Fall COLT1812U S01 16312 Arranged 'To Be Arranged'

**COLT 1813K. The Problem of the Vernacular.**
It has been said that a language is a dialect with an army and a navy. Under what conditions do dialects, vernaculars, creoles, and slangs become mediums for literary and artistic expression? How have writers in different cultures managed the relationship between their "official" national languages and their more intimate mother tongues? This course will explore this problem in a variety of literary traditions, including Chinese, Arabic, Hindi-Urdu, Greek, Hebrew, Brazilian Portuguese, Latin and the Romance vernaculars, and a variety of modern European languages.

Fall COLT1813K S01 16515 TTh 1:00-2:20(10) (E. Muhanna)

**COLT 1813W. Law and Literature (ENGL 1950F).**
Interested students must register for ENGL 1950F.

Fall COLT1813W S01 16316 Arranged 'To Be Arranged'

**COLT 1813X. Getting Emotional: Passionate Theories (ENGL 1560W).**
Interested students must register for ENGL 1560W.

Spr COLT1813X S01 25662 'To Be Arranged'

**COLT 1813Y. Adam and Eve in Early Jewish and Christian Interpretation (JUDS 1612).**
Interested students must register for JUDS 1612.

Spr COLT1813Y S01 25663 Arranged 'To Be Arranged'

**COLT 1813Z. Soil: Environmental Writing from Ancient China to Al Gore.**
Why do people fight over soil? In an increasingly urbanized world, how have the ways we talk about soil, earth, and land shifted? In this class we will explore the politics and aesthetics of writing about soil in its particular relations to ecology, homeland, geography, and race. Readings include Homer’s Odyssey, Derek Walcott’s Omeros, and ecological criticism from ancient China to Rachel Carson, Ramachandra Guha, Al Gore and beyond. Limited to 20.

Spr COLT1813Z S01 25742 W 3:00-5:30(14) (T. Chin)

**COLT 1814A. Fashion and Power (GNSS 1960Y).**
Interested students must register for GNSS 1960Y.

Fall COLT1814A S01 16812 Arranged 'To Be Arranged'

**COLT 1814B. German Romanticism: Texts, Contexts, Legacies.**
Interested students must register for GRMN 1330B.

Fall COLT1814B S01 16921 Arranged 'To Be Arranged'

**COLT 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.

**COLT 1980. Group Independent Study.**
Section numbers vary by instructor. Please see the registration staff for the correct section number to use when registering for this course.

**COLT 1990. Senior Thesis Preparation.**
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 14392 Arranged 'To Be Arranged'

Spr COLT2450 S01 23763 Arranged 'To Be Arranged'

**COLT 2520F. Theories of the Lyric.**
Through readings of recent critical discussions of the lyric genre, we will explore more general methodological problems of literary theory. Questions to be raised include: the role of form, structure and tropes in analyzing poetry; problems of subjectivity and voice; the relation between poetry, history and politics; the function of reading; and the problematic "objectivity" of criticism. Readings from Jakobson, Benveniste, Jauss, Benjamin, Johnson, De Man, Lacoue-Labarthe, Agamben, Badiou and Derrida. Focus on poets Hölderlin, Baudelaire and Celan.

Fall COLT2520F S01 15140 W 3:00-5:30(17) (S. Bernstein)

**COLT 2650D. Theory of Comparative Literature.**
Designed to introduce students to some of the central theoretical issues that define the discipline of Comparative Literature through the study of twelve central texts in the field. We will begin with Erich Auerbach’s foundational text Mimesis, and end with Gayatri Spivak’s Death of a Discipline. In between the authors to be read and analyzed will be Bakhtin, Lukacs, Barthes, Derrida, DeMan, Jameson, Greenblatt and others. Open to graduate students, and to undergraduates by permission of the instructor.

Spr COLT2650D S01 24450 M 3:00-5:30(13) (S. Stewart-Steinberg)

**COLT 2821E. Metaphor.**
Explores the role of metaphor in literary writing, the mind and public policy. Reads philosophical and literary analyses of metaphor alongside poetry, fiction and cognitive science research on metaphor’s centrality to human thought processes. Moves from these readings to a consideration of war metaphors in political speech in the Americas, including the “War on Drugs,” the “War on Terror” and Argentina’s “Dirty War.” Authors include Aristotle, de Man, Sontag, Plath, Eliard, García Márquez, Lakoff, Pinker and Feitlowitz. Open only to graduate students.

Fall COLT2821E S01 15943 T 1:00-3:30(10) (E. Whitfield)

**COLT 2821H. Reading Things: Early Modern Material Culture (ENGL 2360W).**
Interested students must register for ENGL 2360W.
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 15521 TTh 9:00-10:20(08) (D. Stanford)

CSCI 0040. Introduction to Scientific Computing and Problem Solving.
CSCI0040 provides an introduction to using computers to solve STEM (Science, Technology, Engineering and Mathematics) data analysis, visualization and simulation problems from engineering, neuroscience, biology, mathematics and finance.

Students will access and analyze a number of "real world" data sets while becoming fluent MATLAB programmers. Other tools utilized may include Excel, Wolframalpha and Python. By course end, students should be able to use MATLAB to solve a large variety of scientific data analysis, visualization and simulation problems. No prior programming experience is required (MATLAB is easy and fun to use). A calculus course (perhaps in high school) is highly recommended.

Fall CSCI0040 S01 25684 Arranged 'To Be Arranged'

CSCI 0080. A First Byte of Computer Science.
Introduces non-CS concentrators to the academic discipline of computer science, its thought processes, and its relevance to other fields and modern life more generally. The target audience is students who are interested in learning more about what computer science is about and the ideas it has to offer tomorrow’s citizens and scholars. Topics include the basics of computation and programming, a taste of theoretical computer science and algorithms, and an introduction to codes and artificial intelligence. Although students will learn to read and understand short programs, the course will not teach or require advanced programming skills.

Spr CSCI0080 S01 25898 MWF 2:00-2:50(07) (M. Littman)

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.

Fall CSCI0081 S01 15522 Arranged (T. Doepner)

CSCI 0150. Introduction to Object-Oriented Programming and Computer Science.
Focuses on 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 15524 TTh 2:30-3:50(11) (A. van Dam)

CSCI 0160. Introduction to Algorithms and Data Structures.
Introduces fundamental techniques for problem solving by computer that are relevant to most areas of computer science, both theoretical and applied. Algorithms and data structures for sorting, searching, graph problems, and geometric problems are covered. Programming assignments conform with the object-oriented methodology introduced in CSCI 0150. Prerequisite: CSCI 0150 or written permission.

Spr CSCI0160 S01 24793 TTh 10:30-11:50(09) (D. Laidlaw)

CSCI 0170. Computer Science: An Integrated Introduction.
CSCI0170/0180 is an introductory sequence that helps students begin to develop the skills, knowledge, and confidence to solve computational problems elegantly, correctly, efficiently, and with ease. The sequence is unique in teaching both the functional and imperative programming paradigms—the first through the languages Scheme and ML in CSCI0170; the second through Java in CSCI0180. The sequence requires no previous programming experience. Indeed, few high school students are exposed to functional programming; hence even students with previous programming experience often find this sequence an invaluable part of their education.

Although students are taught to use programming languages as tools, the goal of CSCI0170/0180 is not merely to teach programming. On
the contrary, the goal is to convey to students that computer science is much more than programming! All of the following fundamental computer science techniques are integrated into the course material: algorithms, data structures, analysis, problem solving, abstract reasoning, and collaboration. Concrete examples are drawn from different subareas of computer science: in 0170, from arbitrary-precision arithmetic, natural language processing, databases, and strategic games; in 0180, from discrete-event simulation, data compression, and client/server architectures.

Fall CSCI0170 S01 15525 MWF 11:00-11:50(04) (A. Greenwald)

CSCI 0180. Computer Science: An Integrated Introduction.

A continuation of CSCI 0170. Students learn to program in Java while continuing to develop their algorithmic and analytic skills. Emphasis is placed on object-oriented design, imperative programming, and the implementation and use of data structures. Examples are drawn from such areas as databases, strategy games, web programming, graphical user interfaces, route finding, and data compression. Lab work done with the assistance of TAs. Prerequisite: CSCI 0170.

Fall CSCI0180 S01 24795 MWF 11:00-11:50(04) (J. Hays)

CSCI 0190. Accelerated Introduction to Computer Science.

his course is a one-semester introduction to computer science for students with strong prior computer science background. It covers core data structures, algorithms, and analysis techniques similar to those of the two-course introductory sequences (CSCI 0150-0160 and CSCI 0170-0180), integrated with programming. Students who wish to take CSCI 0190 must begin in CSCI 0170 and complete additional work in that course. CSCI 0190 will branch off from CSCI 0170 after approximately one month. Students will be permitted to enroll by permission of the instructor. Please see http://cs.brown.edu/courses/csci0190/2012/ for information on registering for this class.

Fall CSCI0190 S01 15526 MWF 11:00-11:50(04) (S. Krishnamurthi)

CSCI 0220. Introduction to Discrete Structures and Probability.

Seeks to place on solid foundations the most common structures of computer science, to illustrate proof techniques, to provide the background for an introductory course in computational theory, and to introduce basic concepts of probability theory. Introduces Boolean algebras, logic, set theory, elements of algebraic structures, graph theory, combinatorics, and probability. No prerequisites.

Spr CSCI0220 S01 24796 MWF 9:00-9:50(02) (C. Klivans)

CSCI 0320. Introduction to Software Engineering.

Advanced programming techniques including Java, threads, web-applications, user interfaces and XML. Covers software design including object-oriented design, systems design, web application design and user interface design. Software engineering including modeling, analysis, testing, debugger reuse, the software lifecycle, tools and project management. Prerequisite: CSCI 0160, CSCI 0180 or CSCI 0190. CSCI 0220 is recommended.

Spr CSCI0320 S01 24797 TTh 1:00-2:20(10) (J. Jannotti)

CSCI 0330. Introduction to Computer Systems.

High-level computer architecture and systems programming. The course covers the organization of computer systems (in terms of storage units, caches, processors, and I/O controllers) and teaches students assembly-language programming and C-language programming. Extensive programming exercises introduce students to systems-level programming on Linux systems, as well as to multi-threaded programming with POSIX threads. Students will learn the basics of how compilers work and will be introduced to the functions of operating systems. Prerequisite: CSCI 0150, 0180, or 0190.

Fall CSCI0330 S01 15530 MWF 2:00-2:50(07) (T. Doepner)

CSCI 0510. Models of Computation.

This 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 0450.

Fall CSCI0510 S01 15529 TTh 1:00-2:20(10) (A. Lysianskaya)

CSCI 0530. Directions: The Matrix in Computer Science.

Introduces vectors, matrices and their role in computer science in three components: (1) concepts, theorems, and proofs, (2) procedures and programs, (3) applications and working with data. Weekly lab sessions where students apply concepts to a real task with real data. Example labs: transformations in 2-d graphics, error-correcting codes, image compression using wavelets, synthesizing a new perspective in a photo, face recognition, news story categorization, cancer diagnosis using machine learning, matching airplanes to destinations, Google’s PageRank method. Other topics as time allows. Skills in programming and prior exposure to reading and writing mathematical proofs required.

Fall CSCI0530 S01 15531 MWF 1:00-1:50(06) (P. Klein)

CSCI 0931. Introduction to Computation for the Humanities and Social Sciences.

Introduces students to the use of computation for solving problems in the social sciences and the humanities. We will investigate a series of real-world problems taken from the news, from books such as Freakonomics, and from current research. Topics covered include data gathering, analysis, and visualization; web-based interfaces; algorithms; and scripting. Enrollment limited to 20. Instructor permission required. LILE Please go to https://docs.google.com/a/brown.edu/forms/d/1qi99SC_Kmb_yePSSWbdYLcilyJx_nCzz7bXb3-j9U-W4/viewform 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.

Fall CSCI0931 S01 15534 TTh 2:30-3:50(11) (J. Hughes)

Spr CSCI0931 S01 24797 TTh 9:00-10:20(08) (H. Mendes)


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 15533 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 15535 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. Students work independently to learn basic skills, then in groups to create a polished short animation. Emphasis is on in-class critique of ongoing work, which is essential for learning the cycle of evaluating work, determining improvements, and implementing them for further evaluation. Students should attend first class to receive instructor’s written permission.

Fall CSCI1250 S01 15536 WF 12:00-1:50(12) (B. Meier)

CSCI 1270. Database Management Systems.

Introduction to database structure, organization, languages, and implementation. Relational model, query languages, query processing, query optimization, normalization, file structures, concurrency control and recovery algorithms, and distributed databases. Coverage of modern applications such as the Web, but with emphasis on Database Management Systems internals. Prerequisites: CSCI 0160, CSCI 0180, or CSCI 0190. One of CSCI 0330 or CSCI 0320 is strongly recommended.

Fall CSCI1270 S01 15537 MW 3:00-4:20(17) (S. Zobnik)

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.

CSCI 1300. Designing, Developing and Evaluating User Interfaces.
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 or web development experience is useful for some of the more interesting assignments; alternate assignments will be available for those without programming experience.

Fall CSCI1300 S01 16405 MWF 11:00-11:50(04) (J. Huang)

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 25897 TTh 10:30-11:50(08) (T. Doepner)

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 either CSCI 0220 or one of CSCI 0450 or CSCI 1450.

Fall CSCI1410 S01 16158 TTh 10:30-11:50(13) (S. Tellex)

CSCI 1420. Introduction to Machine Learning.
How can artificial systems learn from examples, and discover information buried in massive datasets? 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. Prerequisites: CSCI 0040 or 0150 or 0180 or 0190; and CSCI 0450 or APMA 1650 or MATH 1610; and CSCI 0530 or MATH 0520 or 0540; or instructor permission.

Spr CSCI1420 S01 25403 TTh 2:30-3:50(11) (P. Felzenszwalb)

CSCI 1450. Introduction to Probability and Computing.
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 statistical inference.

Spr CSCI1450 S01 25404 TTh 2:30-3:50(11) (E. Sudderth)

CSCI 1460. Introduction to Computational Linguistics.
Introduction to computational linguistics (also known as natural-language processing) including the related mathematics and several programming projects. Particular topics include: language modeling (as used in e.g., speech recognition, machine translation), machine translation, part-of-speech labeling, syntactic parsing, and pronoun resolution. Mathematical techniques include basic probability, noisy channel models, the EM (Expectation-Maximization) algorithm, hidden Markov models, probabilistic context-free grammars, and the forward-backward algorithm. Not open to first-year students.

Spr CSCI1460 S01 25406 MWF 2:00-2:50(07) (E. Charniak)

CSCI 1480. Building Intelligent Robots.
How do robots function autonomously in dynamic, unpredictable environments? This course focuses on programming mobile robots, such as the iRobot Roomba, to perceive and act autonomously in real-world environments. The major paradigms for autonomous control and robot perception are examined and compared with robotic notions in science fiction. Prerequisite: CSCI 0150, CSCI 0170 or CSCI 0190.

Recommended: CSCI 1410 or CSCI 1230.
Spr CSCI1480 S01 25407 M 3:00-5:30(13) (O. Jenkins)

This course introduces students to applications of probabilistic and statistical methods to the design and analysis of algorithms, in particular randomized algorithms and probabilistic analysis of algorithms. The course covers basic probabilistic techniques such as tail bounds, martingales, coupling, etc., and presents applications of randomized and probabilistic analysis techniques in areas such as graph algorithms, data structures, communication, and Monte Carlo simulations. No prior knowledge of probability theory is assumed. CSCI 1570 recommended but not required.

Spr CSCI1550 S01 25408 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 or CSCI 1450.

Fall CSCI1570 S01 15538 MWF 2:00-2:50(07) (P. Valiant)

This course teaches principles of computer security from an applied viewpoint and provides hands-on experience on security threats and countermeasures. Topics include code execution vulnerabilities (buffer overflow, sandboxing, mobile code), malware (trojans, viruses, and worms), access control (users, roles, policies), cryptosystems (hashing, signatures, certificates), network security (firewalls, TLS, intrusion detection, VPN), and human and social issues. Prerequisites: one of CSCI 0160 or CSCI 0180 or CSCI 0190; and CSCI 0330.

Spr CSCI1660 S01 25409 TTh 1:00-2:20(10) (R. Palazzi)

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 0310 or 0330.
Spr CSCI1670 S01 25410 MWF 2:00-2:50(07) (T. Doepner)

CSCI 1680. Computer Networks.
Covers the technologies supporting the Internet, from Ethernet and WiFi through the routing protocols that govern the flow of traffic and the web technologies that are generating most of it. A major concern is understanding the protocols used on the Internet: what the issues are, how they work, their shortcomings, and what improvements are on the horizon.

Prerequisite: CSCI 0330 or consent of instructor.
Fall CSCI1680 S01 16355 TTh 10:30-11:50(13) (E. Upfal)

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 25411 M 4:40-5:00(02) (T. Doepner)

CSCI 1729. Programming Languages Lab.
Half-credit course intended to be taken concurrently with CSCI 1730. Students individually implement a full programming language chosen by the course. Reinforces the concepts learned in 1730 and
CSCI 1729
(S. Istrail)
1:00-2:20 (10)

CSCI 2240
2:30-3:50 (11)
S01

S01

15539
15540
10:30-11:50 (13)
(J. Hughes)

CSCI 1951C. Designing Humanity Centered Robots.
This is a new course jointly offered by Brown’s Computer Science department and RISD’s Furniture Design 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.

The course has two tracks, one intended for CS concentrators, and one intended for non-concentrators with previous design experience. Non-concentrator track cannot be used toward fulfilling a Computer Science concentration requirement.

Fall CSCI1951C S01 16639 TTh 9:00-10:20 (08) (M. Littman)

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 variations 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.


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 25416 TTh 10:30-11:50 (09) (J. Hughes)

CSCI 2270. Topics in Database Management.
In-depth treatment of advanced issues in database management systems. Topics vary from year to year and may include distributed databases, mobile data management, data stream processing and web-based data management. Prerequisite: CSCI 1270.

Spr CSCI2270 S01 25417 M 3:00-5:30 (13) (S. Zdonik)

CSCI 2300. Human-Computer Interaction Seminar.
Covers methods for conducting research in human-computer interaction (HCI). Topics will be pursued through independent reading, assignments, and class discussion. Comprises four assignments that apply to HCI research methods and push the envelope, which are designed to be meaningful and have the potential to be widely visible or to be published. Students will gain the background necessary to perform research in HCI and the skills to conduct human-centric research. There will be little content about user interfaces, but students will find topics in CSCI 1950i relevant. Students who have not taken CSCI 1300 or CSCI 1950i need instructor permission to register.

Spr CSCI2300 S01 25911 MWF 1:00-1:50 (06) (J. Huang)

CSCI 2370. Interdisciplinary Scientific Visualization.
How to do research on using computer graphics, visualization, and interaction applied to scientific problems. Working in small multidisciplinary groups, students identify building different variations of computational modeling and visualization, design and implement the solutions, apply them to the problems, and evaluate their success. For 2014, immersive CAVE applications will be a focus, but other interaction or visualization projects are possible. Prerequisites: all: programming experience; CS students: graphics experience; others: problem ideas. Instructor permission required.

Fall CSCI2370 S01 16156 TTh 1:00-2:20 (10) (D. Laidlaw)

CSCI 2420. Probabilistic Graphical Models.
Probabilistic graphical models provide a flexible framework for modeling large, complex, heterogeneous collections of random variables. After a brief introduction to their representational power, we provide a comprehensive survey of state-of-the-art methods for statistical learning and inference in graphical models. We discuss a range of efficient algorithms for approximate inference, including optimization-based variational methods, and simulation-based Monte Carlo methods. Several approaches to learning from data are explored, including conditional models for discriminative learning, and Bayesian methods for controlling...
model complexity. Programming experience required for homeworks and projects, which integrate mathematical derivations with algorithm implementations. PREREQUISITES: CSCI1420 or APMA1690.

**CSCI 2450. Exchange Scholar Program.**

CSCI 2510. Approximation Algorithms.
Approximation Algorithms deal with NP-hard combinatorial optimization problems by efficiently constructing a suboptimal solution with some specified quality guarantees. We study techniques such as linear programming and semidefinite programming relaxations, and apply them to problems such as facility location, scheduling, bin packing, maximum satisfiability or vertex cover. Prerequisite - one of the following: CSCI 1510, 1550, 1810, 1950J, 1950L, any graduate-level course on algorithms (including 2500A, 2500B, 2580).

**CSCI 2590. Advanced Topics in Cryptology.**
Seminar-style course on advanced topics in cryptography. Example topics are zero-knowledge proofs, multi-party computation, extractors in cryptography, universal composability, anonymous credentials and e-cash, interplay of cryptography and game theory. May be repeated for credit. Prerequisite: CSCI 1510 or permission of the instructor.

**CSCI 2890. Comprehensive Examination Preparation.**
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.

**CSCI 2950K. Special Topics in Computational Linguistics.**
Every year we will cover a different topic in computational linguistics, from a statistical point of view, including parsing, machine translation, conference, summarization, etc. Prerequisites: CSCI 1460 or permission of the instructor.

**CSCI 2951B. Data-Driven Vision and Graphics.**
Investigates current research topics in image-based graphics and vision. We will examine data sources, features, and algorithms for understanding and manipulating visual data. We will pay special attention to methods that use crowd-sourcing or Internet-derived data. Vision topics such as scene understanding and object detection will be linked to graphics applications such as photo editing and image-based rendering. These topics will be pursued through independent reading, class discussion and presentations, and a semester long research project. Strong mathematical skills and previous imaging (vision or computational photography) courses are essential.

**CSCI 2951E. Topics in Computer Systems Security.**
This course explores advanced topics and highlights current research in computer security from a systems perspective. Topics include vulnerabilities and defenses for automotive, computing, medical, and industrial control devices, intrusion detection, botnets, secure network protocols, web spam, tracking of web users, JavaScript sandboxing, attacks and defenses for web applications, and security and privacy issues in cloud computing. Research papers and industry reports will be presented and discussed. Also, hands-on experiments and system demonstrations will be performed. CSCI 1660 or equivalent background is essential. Enrollment limited to 12. Instructor permission required.

**CSCI 2951N. Advanced Algorithms in Computational Biology.**
This is a full-lecture, graduate course on algorithms and biomedical applications. The Foundations lectures are an introduction to the biological and medical genomics application areas. Each Algorithm section is devoted to an algorithmic method presented in rigorous depth, followed by an important open problem in the application area, together with the current most effective algorithmic solutions to the problem. Graduate students and advanced undergraduates in computational and mathematical sciences and engineering are welcome. Biological, life sciences and medical students and faculty are welcome as well and will be able to participate more in the applications areas.

Interested students must register for ECON 0510.

Interested students must register for SOC 1871D.

DEVL 1020. Comparative Development (SOC 1600).
Interested students must register for SOC 1600.

DEVL 1100. Globalization and Social Conflict (SOC 1620).
Interested students must register for SOC 1620.

DEVL 1120. Economic Development (ECON 1510).
Interested students must register for ECON 1510.

DEVL 1130. Explaining China’s Rise: Development and Accumulation in Contemporary China (SOC 1870P).
Interested students must register for SOC 1870P.

An integrative seminar designed for concentrators working on senior theses. Others with comparable backgrounds may enroll with written permission.
Course Descriptions

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. WRIT
Fall DEVL 1980 S01 16517 W 3:00-5:30(17) (A. Pokharel)

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 DEVL 2000 S01 16421 Th 1:00-4:00(10) (P. Heller)

DEVL 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall DEVL 2990 S01 14396 Arranged "To Be Arranged"
Spr DEVL 2990 S01 23767 Arranged "To Be Arranged"

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

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 the course work in CHIN 0200 covers the entire year and is recorded as the final grade for both semesters.
Fall CHIN 0100 S01 14708 TTh 8:00-8:50(18) (Y. Wang)
Fall CHIN 0100 S01 14708 MWF 9:00-9:50(18) (Y. Wang)
Fall CHIN 0100 S02 14709 TTh 9:00-10:20(15) (Y. Wang)
Fall CHIN 0100 S02 14709 MWF 10:00-10:50(18) (Y. Wang)
Fall CHIN 0100 S03 14710 MWF 1:00-1:50(18) (Y. Wang)
Fall CHIN 0100 S03 14710 TTh 1:00-2:20(18) (Y. Wang)
Fall CHIN 0100 S04 14711 MWF 2:00-2:50(18) (Y. Wang)
Fall CHIN 0100 S04 14711 TTh 2:30-3:50(18) (Y. Wang)

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 CHIN 0200 S01 24048 TTh 8:00-8:50(13) (Y. Wang)
Spr CHIN 0200 S01 24048 MWF 9:00-9:50(13) (Y. Wang)
Spr CHIN 0200 S02 24049 TTh 9:00-10:20(13) (Y. Wang)
Spr CHIN 0200 S02 24049 MWF 10:00-10:50(13) (Y. Wang)
Spr CHIN 0200 S03 24050 MWF 1:00-1:50(13) (Y. Wang)
Spr CHIN 0200 S03 24050 TTh 1:00-2:20(13) (Y. Wang)
Spr CHIN 0200 S04 24051 MWF 2:00-2:50(13) (Y. Wang)
Spr CHIN 0200 S04 24051 TTh 2:30-3:50(13) (Y. Wang)

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 CHIN 0300 S01 14761 MWF 12:00-12:50(15) (H. Tseng)
Fall CHIN 0300 S02 14762 MWF 1:00-1:50(15) (H. Tseng)
Fall CHIN 0300 S03 14762 TTh 1:00-2:20(15) (H. Tseng)
Fall CHIN 0300 S03 14763 MWF 2:00-2:50(15) (H. Tseng)
Fall CHIN 0300 S03 14763 TTh 2:30-3:50(15) (H. Tseng)

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 CHIN 0400 S01 24069 MWF 12:00-12:50(15) (H. Tseng)
Spr CHIN 0400 S02 24070 MWF 1:00-1:50(15) (H. Tseng)
Spr CHIN 0400 S02 24070 TTh 1:00-2:20(15) (H. Tseng)
Spr CHIN 0400 S03 24071 MWF 2:00-2:50(15) (H. Tseng)
Spr CHIN 0400 S03 24071 TTh 2:30-3:50(15) (H. Tseng)

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 CHIN 0500 S01 14712 MWF 9:00-9:50(09) (W. Chen)
Fall CHIN 0500 S01 14712 TTh 9:00-10:20(09) (W. Chen)
Fall CHIN 0500 S02 14713 TTh 10:30-11:50(09) (W. Chen)
Fall CHIN 0500 S02 14713 MWF 11:00-11:50(09) (W. Chen)
Fall CHIN 0500 S03 14714 MWF 12:00-12:50(09) (W. Chen)

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 CHIN 0600 S01 24052 MWF 9:00-9:50(17) (W. Chen)
Spr CHIN 0600 S01 24052 TTh 9:00-10:20(17) (W. Chen)
Spr CHIN 0600 S02 24053 TTh 10:30-11:50(17) (W. Chen)
Spr CHIN 0600 S02 24053 MWF 11:00-11:50(17) (W. Chen)
Spr CHIN 0600 S03 24054 MWF 12:00-12:50(17) (W. Chen)

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 CHIN 0700 S01 14737 MWF 10:00-10:50(18) (L. Hu)
Fall CHIN 0700 S01 14737 TTh 10:30-11:50(18) (L. Hu)
Fall CHIN 0700 S02 14739 MWF 12:00-12:50(18) (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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
CHIN 0910C. Introduction to Modern Chinese Prose.

Students will pursue their ability to appreciate and use various Chinese writing styles by reading and analyzing modern Chinese prose classics. Classes include lecture, discussion and group or individual presentations.

By the end of the semester, students will be familiar with the development of modern Chinese prose, understand the language and meaning of each text, be comfortable with different writing styles and techniques, and have a deeper understanding of Chinese thought, society, and culture via the writers and their masterpieces. Conducted in Mandarin Chinese; designed for students with advanced language skills. Prerequisites: CHIN 0800 or the equivalent.

Fall CHIN0910C S01 14752 TTh 9:00-10:20(08) (H. Tseng)

CHIN 0920A. Advanced Reading and Writing in Chinese.

This course trains students to read texts in order to improve language skills and acquire the ability to do research in academic fields. Masterpieces by statesmen, economists, historians, scientists, literary critics, and sociologists will be analyzed and discussed. Focus will be on the training of both analytical ability and writing skills. Prerequisite: CHIN 0800 or permission of the instructor.

Spr CHIN0920A S01 24047 MW 8:30-9:50(02) (L. Hu)


In order to develop advanced reading proficiency and formal oral and writing communication skills, students will listen to and read current news reports and commentaries from various Chinese media sources, such as TV broadcasts, newspapers, magazines, and websites. Through reading and discussion, students will gain a better understanding of a wide range of current issues in a rapidly changing China, including: economics, politics, education, and popular culture. General knowledge of Chinese newspapers, Chinese journalistic writing styles and basic vocabulary and grammatical structures used in the press will also be introduced throughout the course. Class format varies from lecture, discussion, and debate, to interviews and group or individual presentations. Prerequisites: CHIN0800 or the equivalent. Enrollment limited to 18.

Spr CHIN0920C S01 24084 TTh 6:40-8:00PM(12) (Y. Wang)

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 14769 TTh 2:30-3:50(11) (L. Wang)

CHIN 1910. Independent Study.

Reading materials for research in Chinese. Sections numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

CHIN 2450. Exchange Scholar Program.

Fall CHIN2450 S01 14387 Arranged 'To Be Arranged'

East Asian Studies


This course is an introduction to Japanese culture and aesthetics as represented in pre-modern literature, drama, visual arts, tea practices, and martial arts. Recurring themes include Japanese attitudes toward the natural world; religious elements in traditional conceptions of beauty; and the function of ritual and mindfulness in artistic cultivation. The course is designed for students who have no previous exposure to Japanese studies at the college level; no prerequisites.

Spr EAST0180 S01 24076 TTh 2:30-3:50(11) (J. Sawada)

EAST 1050. The Chinese Novel.

The purpose of this course is to help us see how the Chinese novel took shape from popular sources, such as storytelling and drama, how the novel drew on history as well as legend, and how its authors and editors express a distinct world view. The class will cover the "masterworks" of the Chinese novel. Through intensive reading, students can explore notions of the hero and heroism, moral action and, more broadly, history and literature from a comparative perspective. All readings are in English translation. Limited to 20 freshmen and sophomores, or by instructor permission.

Spr EAST1050 S01 24082 TTh 10:00-10:50(16) (Z. Li)

EAST 1200. Pop, Political and Patrician: Culture in Japan and Korea.

This course introduces students to the modern cultures of Japan and Korea through an examination of events, artifacts, and cultural practices. The over-arching goal of the class is two-fold: to create an alternative narrative to the dominant Orientalized vision of East Asian culture and to deepen our knowledge of the overlapping cultural histories of Japan and Korea. With a broad understanding of culture as a general process of artistic and intellectual development, as a body of material artifacts, and as a social practice of ordinary life, we shall focus our attention on the implications of studying culture in relation to popular media and political activism in particular. Topics covered will include: colonial fiction, the recreation of tradition, art and atrocity, the proletarian arts, postwar children's culture, the globalization of popular music, myth in the DPRK, shojō print culture, and East Asian activism.

Spr EAST1200 S01 24075 TTh 1:00-2:20(10) (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 14768 TTh 1:00-2:20(10) (L. Wang)


This course traces the historical evolution of modern Chinese, commonly known as Mandarin. We will examine the uniqueness of Chinese characters, and explore their relationship to other features of the language, including word formation, phonology, grammar, and dialects. The goal will be to understand the manner by which the written script has become so central to the development of Chinese civilization.

Fall EAST1510 S01 16837 W 3:00-5:30(17) (Z. Li)

EAST 1700. Global Korea: Modernity, Nation, and Belonging.

In this course we will explore important issues in the study of contemporary Korean society and ask how those themes can help us to better understand processes of globalization in East Asia and beyond. Although the Koreas are relatively small countries in Asia, their history of colonialism, the Korean War, coming of age in the Cold War, and struggling to rise to the top of the global stage makes them a productive region of the world for thinking about themes such as globalization, nationalism, belonging and modernity. We will look at issues such as the Korean diaspora, immigration, plastic surgery, and the "Korean Wave" of film, TV and music.

Fall EAST1700 S01 16969 T 4:00-6:30(18) (S. Cho)

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 complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
EAST 1950B. Chinese Women, Gender and Feminism from Historical and Transnational Perspectives.
This seminar course is designed to critically re-evaluate representations of Chinese women, gender, and feminism in historical, literary, and academic discourses. It examines a diverse body of texts produced through different historical periods and in different geopolitical locations. It emphasizes gender as both a historical construct(s) among competing discourses and as a material process of individual embodiment and disembodiment. The goal of the course is to help students understand Chinese history from a distinctly gendered perspective, to recognize women’s roles in history and writing, and to develop a reflective, cross-cultural approach to gender, politics, and the self.
Spr 2015

EAST 1950F. The Karma of Words.
This course is an opportunity for students to further their understanding of East Asian Buddhist attitudes and values by investigating characteristic themes in literature as a whole, rather than by studying formal scriptures and doctrinal tracts. Participants will explore tensions between the religious and poetic impulses and learn to recognize Buddhist symbols in Chinese and Japanese poetry, fiction and plays. Recommended: a course in Asian religions. Writt
Fall 2015

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 2015

This seminar/workshop discusses a broad range of narrative arts produced over the past 100 years in Japan, and practices the art of translating them. Drawing rigor from the field of linguistics and translation theory, we shall make central to our effort of analyzing Japanese cultural productions an attentiveness to the historicity of language and a self-consciousness of our roles as cultural interpreters. While the course will focus on mid-20th century Japanese short fiction, we will also work on poetry, music, manga, animation, and film, depending on the interests of enrolled students. Prerequisites: JAPN 0600 or equivalent. Instructor permission required.
Fall 2015

EAST 1950S. The History, Philosophy, and Practice of Rinzai Zen Buddhism.
Follows origins of Chan Buddhism in China from the legend of Bodhidharma through the Five Houses of Chan and its great flourishing during the Song dynasty to its arrival and developments in Japan and eventual transplanting to the West. Scope includes Daoist foundations, the Buddha-Daoin essays of Shen Zhao, Bodhidharma, the East Mountain Chan of Daoxin and Hongren, Huineng and Shenhui, Huangbo, Linji, Dahai and the development of koan, Kanzen Egan in Japan, Ikkyu, Bankei, Hakuin, and Sasaki Joshu. Practices of each of these teachers will be studied in meditation labs. Prerequisites: coursework in Buddhism at Brown; permission of instructor. Enrollment limited to 20.
Spr 2015

EAST 1950X. Queer Japan: Culture, History and Sexuality.
This seminar investigates cultural practices enacted by Japanese gays and lesbians, or otherwise related to same-sex attraction. How have sexual identities traditionally been constructed in Japan, and how has the modern period transformed them? How has same-sex sexuality become figured in the Japanese art, literature and popular culture of the 20th century; and how have the forces of a global LGBT culture interacted with the specific experiences of a same-sex community in Japan? This class explores questions about queer history, writing and cultural practice by looking at particular moments in the Japanese past and present.
Spr 2015

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
course due to enrollment limits but are dedicated to learning Japanese, please contact the instructor via email.

JAPN 0250. Advanced Beginning Japanese. Designed for those who have had high-school Japanese or other Japanese language experience. An opportunity to organize previous knowledge of Japanese and develop a firm basis of spoken and written Japanese. Prerequisite: Reading and writing knowledge of Hiragana, Katakana and some Kanji. Placement test required. This is the second half of a year-long course. Students must have taken JAPN 0150 to receive credit for this course. The final grade for this course will become the final grade for JAPN 0150. If JAPN 0150 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing. 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.

JAPN 0300. Intermediate Japanese. 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.


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.


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.

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

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.

JAPN 0910E. Advanced Reading for Research. This is an advanced reading course. Class activities include reading and translation of scholarly articles in the fields of students’ interests, and of selected writings in humanities and social sciences in general or in broad perspectives. Readings include literary essays, fiction and short stories, articles from major newspapers, weekly and monthly journals/magazines. Prerequisite JAPN0600 Advanced Japanese II. WRIT, LILE

JAPN 1310. Japanese Linguistics: Communication and Understanding Utterances. Introduces a linguistic analysis of Japanese language to attain an overview of structure and a foundation for understanding how grammar relates to various modes of communication. Topics include discourse analysis, pragmatics, communicative intention, communication strategies, and intercultural communication gaps. Linguistic data is drawn from films and fiction. Prerequisite: basic knowledge of Japanese grammar, vocabulary, and linguistics. Enrollment limited to 20. WRIT

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. No prerequisite. Enrollment limited to 18. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade submitted at the end of the course work in KREA 0200 covers the entire year and is recorded as the final grade for both semesters.

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.

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. Four classroom hours per week. Prerequisite: KREA 0200 or instructor permission.
Fall KREA0300 S01 14748 MWF 11:00-11:50(04) (H. Ha)
Fall KREA0300 S01 14748 TTh 10:30-11:50(04) (H. Ha)

See Intermediate Korean (KREA 0300) for course description. Prerequisite: KREA 0100-0200 or equivalent.
Spr KREA0400 S01 24066 MWF 11:00-11:50(04) (H. Wang)
Spr KREA0400 S01 24066 TTh 10:30-11:50(04) (H. Wang)

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 14764 MWF 1:00-1:50(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 24072 MWF 1:00-1:50(06) (H. Wang)

KREA 0920A. Korean Culture and Society.
Develops oral proficiency in Korean language through a variety of readings on Korean culture and society. By reading about and discussing important aspects and core issues of Korea, students enhance their speaking competence and cultural understanding. Prerequisites: KREA 0300 and 0400 or permission of instructor. Enrollment limited to: 15.
Spr KREA0920A S01 24067 TTh 10:30-11:50(09) (H. Wang)

KREA 1910. Independent Study.
Reading materials for research in Korean. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Economics

ECON 0110. Principles of Economics.
Extensive coverage of economic issues, institutions, and vocabulary, plus an introduction to economic analysis and its application to current social problems. Required for all economics concentrators. Prerequisite for ECON 1110, 1130, 1210 and 1620. Serves as a general course for students who will take no other economics courses and want a broad introduction to the discipline. Weekly one-hour conference required (conferences are not held during the summer session).
Fall ECON0110 S01 14580 MWF 9:00-9:50(16) (R. Friedberg)
Spr ECON0110 S01 23972 MWF 10:00-10:50(03) (S. Kuo)

ECON 0180D. The Power of Data (and its Limits).
Open any newspaper, any magazine, any academic journal, you’ll find claims which rely on data. Government policies, economic data, health recommendations – all of these are based on some underlying data analysis. Data used in this context has enormous power, but it also has limits. Understanding these limits is key to using – but not mis-using – the power of data.
This first-year seminar will focus on understanding where data comes from, what we can learn from it, and what the limitations are. The course will emphasize policy-relevant economic and public health applications.
Fall ECON0180D S01 16767 TTh 2:30-3:50(11) (E. Oster)

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.

Spr ECON0510 S01 25639 MW 8:30-9:50(02) (E. McGuirk)

Basic accounting theory and practice. Accounting procedures for various forms of business organizations.
Fall ECON0710 S01 14581 MW 6:00-7:30(18) (F. Sciutro)
Fall ECON0710 S01 14581 M 6:00-7:30(18) (F. Sciutro)
Fall ECON0710 S01 14581 W 6:00-7:30(18) (F. Sciutro)
Fall ECON0710 S02 14582 TTh 6:00-7:30(18) (T. Lonardo)
Spr ECON0710 S01 23993 MW 6:00-7:30(14) (F. Sciutro)
Spr ECON0710 S02 23994 TTh 6:00-7:30(12) (T. Lonardo)

ECON 1110. Intermediate Microeconomics.
Tools for use in microeconomic analysis, with some public policy applications. Theory of consumer demand, theories of the firm, market behavior, welfare economics, and general equilibrium. Prerequisite: MATH 0060, 0070, 0090, 0100, 0170, 0180, 0190, 0200, or 0350; and ECON 0110; or advanced placement.
Fall ECON1110 S01 14583 TTh 1:00-2:20(15) (M. Gradstein)
Fall ECON1110 S02 14584 MWF 11:00-11:50(15) (P. Dal Bo)
Fall ECON1110 S03 14585 MWF 8:00-8:50(15) (A. Serrano)
Spr ECON1110 S01 23995 MWF 1:00-1:50(16) ‘To Be Arranged’
Spr ECON1110 S02 23996 TTh 9:00-10:20(16) (R. Vohra)
Spr ECON1110 S03 23997 TTh 2:30-3:50(16) (R. Vohra)

ECON 1130. Intermediate Microeconomics (Mathematical).
Microeconomic theory: Theories of the consumer and firm, competitive equilibrium, factor markets, imperfect competition, game theory, welfare economics, general equilibrium. May not be taken in addition to ECON 1110. Prerequisite: MATH 0100, 0170, 0180, 0190, 0200, or 0350; and ECON 0110; or advanced placement.
Fall ECON1130 S01 14677 TTh 9:00-10:20(08) (N. Baum-Snow)
Spr ECON1130 S01 24002 TTh 10:30-11:50(08) (J. Eaton)

This is an 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.
Fall ECON1170 S01 15687 MW 8:30-9:50(16) (R. Serrano)

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.
Fall ECON1210 S01 14586 TTh 10:00-10:50(03) (N. Mehrotra)
Fall ECON1210 S02 14587 TTh 1:00-2:20(10) (S. Michalopoulos)
Fall ECON1210 S03 14588 MW 8:30-9:50(16) (G. Casey)
Spr ECON1210 S01 23998 TTh 1:00-2:20(10) (N. Mehrotra)
Spr ECON1210 S02 23999 MW 5:30-6:50(13) ‘To Be Arranged’
Spr ECON1210 S03 24000 MWF 9:00-9:50(02) (D. Politi)

ECON 1220. Monetary and Fiscal Policy.
This course is about macroeconomic policy with special focus on the recent economic crisis. Questions will be addressed such as: How does monetary policy affect the economy? What is the effect of government spending and tax cuts? What should the government do in the event of a financial 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.
Fall ECON1220 S01 16433 M 3:00-5:30(15) (G. Eggertsson)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ECON 1275. History of Economic Thought. Seminar explores economic thought from the classical Greek philosophers to mid-twentieth-century economists, including John Maynard Keynes and F. A. Hayek. It is not a course in economic history. Rather, the course deals with the content of economic writings such as Adam Smith's Wealth of Nations and Karl Marx's Capital. This course seeks to provide you with an overview of the history of economic ideas as well as undertake an in-depth exploration of six of major figures in the history of economics: Adam Smith, Thorstein Veblen, Alfred Marshall, Karl Marx, F. A. Hayek, and John Maynard Keynes. Prerequisites: ECON 1110 or 1130; 1210; and 1620 or 1630. Enrollment limited to 30. WRIT Spr ECON1275 S01 25725 T 4:00-6:30(16) "To Be Arranged"

ECON 1301. Economics of Education I. This course teaches students how to use microeconomics to analyze a broad array of education policy issues. The departure of this course from ECON 1110 is the emphasis on studying microeconomics in applied settings, and in particular, using microeconomic concepts to think about, analyze, and solve policy questions in education. Prerequisite: ECON 1110 or 1130.
Fall ECON1301 S01 16627 MWF 12:00-12:50(12) (J. Tyler)

ECON 1305. Economics of Education: Research. This course will cover academic research in the Economics of Education. Topics include production of student achievement, measuring student achievement, funding of public education, and school choice and school vouchers. Prerequisites: ECON 1110 or 1130; and APMA 1650 or ECON 1620 or 1630. Enrollment limited to 25 juniors, seniors, and graduate students. WRIT DPLL Spr ECON1305 S01 24023 M 3:00-5:30(13) (J. Hastings)

ECON 1310. Labor Economics. Labor supply, human capital, income inequality, discrimination, immigration, unemployment. Prerequisite: ECON 1110 or 1130; and APMA 1650 or ECON 1620 or 1630. Enrollment limited to 100. DPLL Fall ECON1310 S01 15603 TTh 2:30-3:50(11) (D. Brenner)

Fall ECON1350 S01 16260 Arranged "To Be Arranged"

ECON 1355. Environmental Issues in Development Economics (ENVS 1355). Interested students must register for ENVS 1355.
Spr ECON1355 S01 25589 Arranged "To Be Arranged"

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, 1630, or APMA 1650 or other statistics background. Enrollment limited to 24. DPLL Spr ECON1360 S01 25684 T 4:00-6:30(10) (A. Aizer)

ECON 1375. Inequality of Opportunity in the US. This course examines empirical evidence on inequality of opportunity in the US. We cover recent work in economics that measures the importance of parents, schools, health care, neighborhoods, income, and race in determining children's long-term labor market success, and implications of these findings for US public policy. We will also place the empirical work in historical and philosophical context and cover a variety of statistical issues. Prerequisites: ECON 1110 or 1130; and ECON 1620, 1629, or 1630. Enrollment limited to 30 seniors.
Fall ECON1375 S01 15764 T 4:00-6:30(18) (N. Hilger)

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.

ECON 1410. Urban Economics. The first part of the course covers the set of conceptual and mathematical models widely used to understand economic activity both between and within cities. The second part of the course examines various urban policy issues including urban transportation, housing, urban poverty, segregation and crime. The course makes extensive use of empirical evidence taken primarily from the United States. Prerequisites: ECON 1110 or 1130; and APMA 1650 or ECON 1620 or 1630. Enrollment limited to 100.
Spr ECON1410 S01 24001 MW 8:30-9:50(02) (N. Baum-Snow)

ECON 1470. Bargaining Theory and Applications. 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.
Spr ECON1470 S01 25041 MWF 1:00-1:50(08) (J. Fanning)

ECON 1480. Public Economics. An analysis of the role of government in the allocation of resources. Topics include welfare economics (a review), problems of social choice, the evaluation of public expenditures, and taxation. Prerequisite: ECON 1110 or 1130. DPLL Spr ECON1480 S01 24926 TTh 10:30-11:50(03) (N. Hilger)

ECON 1485. Social Security Reform. The course looks at the economics of social security reform with particular focus on possible policy responses to the increasing fraction of the population that is elderly in OECD countries. Among the topics that will be considered are pay as you go funding, defined benefits versus defined contributions, privatization, labor market effects of pensions, retirement decisions, labor supply by couples, and macroeconomic effects. Prerequisite: ECON 1110 or 1130. Enrollment limited to 30. Not open to first-year students. DPLL Fall ECON1485 S01 16376 Th 4:00-6:30(02) (E. Sheshinski)

ECON 1510. Economic Development. The economic problems of less developed countries and the theory of economic development, with emphasis on the roles played by agriculture, industry, and foreign trade. Also: education, health, employment, and migration; capital accumulation; income distribution; institutional aspects; the role of price distortions; trade policies; social discount rates, investment criteria, and the general issue of state intervention. Prerequisite: ECON 1110 or 1130; and APMA 1650 or ECON 1620 or 1630. Enrollment limited to 100. DPLL Spr ECON1510 S01 24024 TTh 2:30-3:50(09) (A. Sautmann)

ECON 1530. Health, Hunger and the Household in Developing Countries. Microeconomic analysis of household behavior in low income societies emphasizing the economic determinants of health and nutrition and the evaluation of policy. The relationship among health, nutrition, fertility, savings, schooling, labor productivity, wage determination, and gender-based inequality. Emphasizes theoretically-based empirical research. Prerequisite: ECON 1110 or 1130, ECON 1620. Enrollment limited to 30. Spr ECON1530 S01 24011 W 3:00-5:30(11) (A. Foster)

ECON 1540. International Trade. Theory of comparative advantage, trade, and income distribution. Welfare analysis of trade: gains from trade, evaluation of the effects of trade policy instruments-tariffs, quotas, and subsidies. Trade under imperfect competition. Strategic trade policy. Trade, labor markets, preferential trade agreements, and the world trading systems. Prerequisite: ECON 1110 or 1130. Enrollment limited to 100. Fall ECON1540 S01 15547 TTh 9:00-10:20(08) (J. Blaum)
ECON 1545. Topics in Macroeconomics, Development and International Economics.
This class is a senior seminar that covers selected topics at the intersection of macroeconomics, economic development and international trade. The leading theme of the class is the determinants of the observed cross-country differences in income per capita and growth rates. We will consider a wide range of theories to explain such disparities in economic outcomes, with a special focus on theories that stress problems in financial markets. We will also study the role of wealth inequality. We may also cover structural change, the link between volatility, diversification and development, and selected topics in international trade.
Spr ECON1545 S01 25842 T 4:00-6:30(16) (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 25726 MWF 12:00-12:50(05) 'To Be Arranged'

ECON 1560. Economic Growth.
A theoretical and empirical examination of economic growth and income differences among countries. Focuses on both the historical experience of countries that are currently rich and the process of catch-up among poor countries. Topics include population growth, accumulation of physical and human capital, technological change, natural resources, income distribution, geography, government, and culture. Prerequisite: ECON 1110 or 1130; and MATH 0060, 0070, 0090, 0100, 0170, 0180, 0190, 0200 or 0350; or advanced placement. Enrollment limited to 100.
Fall ECON1560 S01 15552 MWF 11:00-11:50(04) (D. Well)

ECON 1565. Income Inequality.
This course examines the macroeconomic dimensions of income inequality. How much of national income is paid to capital and how much to labor? What determines the gap in wages between workers with different skill levels, as well as variation in wages within skill groups? How have changes in technology, openness to trade, government policy, and the quantities of factors of production contributed to changes in these relative returns? What determines the aggregate quantities of different factors of production as well as their distribution among individuals? How does inequality feed back to affect macroeconomic stability and long term growth?
Spr ECON1565 S01 25688 TTh 1:00-2:20(10) (D. Well)

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 1130. Weekly one-hour computer conference required.
Fall ECON1620 S01 14589 TTh 9:00-10:20(07) (F. Kleibergen)
Spr ECON1620 S01 24004 MWF 10:00-10:50(09) (D. Polit)

This class will cover the basics of applied research in economics. We will cover how we use economic theory to formulate a hypothesis to test and how we use data to test our hypothesis. As part of the coursework, students will be exposed to topics across multiple fields of applied economic research (eg. health, labor, political economy, urban economics, development, etc) that can be explored in greater detail in more advanced classes.
Students will read and discuss papers published in professional journals and perform data analysis as part of the course requirements. Prerequisites: ECON 1110 or 1130; and ECON 1620 or 1630.
Fall ECON1629 S01 14676 MW 3:00-4:20(17) (D. Bjorkegren)
Spr ECON1629 S01 24003 TTh 9:00-10:20(02) (A. Aizer)

ECON 1630. Econometrics I.
Advanced introduction to econometrics with applications in finance and economics. How to formulate and test economic questions of interest. The multivariate linear regression model is treated in detail, including tests of the model’s underlying assumptions. Other topics include: asymptotic analysis, instrumental variable estimation, and likelihood analysis. Convergence concepts and matrix algebra are used extensively.
Prerequisites: ECON 0110 or advanced placement; and ECON 1110 or 1130; and APMA 1650, MATH 1620, or ECON 1620; or equivalent.
Fall ECON1630 S01 14602 TTh 2:30-3:50(11) (S. Schenach)
Spr ECON1630 S01 24031 MW 8:30-9:50(02) (A. McCloskey)

ECON 1640. Econometrics II.
Continuation of ECON 1630 with an emphasis on econometric modeling and applications. Includes applied topics from labor, finance, and macroeconomics. Prerequisite: ECON 1630. Enrollment limited to 100.
Fall ECON1640 S01 14675 TTh 2:30-3:50(11) (A. McCloskey)

Financial time series, for example, asset returns, options and interest rates, possess a number of stylized features that are analyzed using a specific set of econometric models. This course deals with an introduction to such models. It discusses time series models for analyzing asset returns and interest rates. (GARCH) models to explain volatility, models to explain extreme events which are used for the Value at Risk and models for options prices. Prerequisite: ECON 1630 or instructor permission. Enrollment limited to 100.
Spr ECON1650 S01 24030 TTh 2:30-3:50(11) (E. Renault)

ECON 1710. Investments I.
The function and operation of asset markets; the determinants of the prices of stocks, bonds, options, and futures; the relations between risk, return, and investment management; the capital asset pricing model, normative portfolio management, and market efficiency. Prerequisite: ECON 1110 or 1130; and 1121. Enrollment limited to 100.
Fall ECON1710 S01 14673 MWF 10:00-10:50(15) (S. Kuo)
Fall ECON1710 S02 14674 MWF 1:00-1:50(15) (S. Kuo)
Spr ECON1710 S01 24029 MW 3:00-4:20(14) (A. McCloskey)

ECON 1720. Corporate Finance.
A study of theories of decision-making within corporations, with empirical evidence as background. Topics include capital budgeting, risk, securities issuance, capital structure, dividend policy, compensation policy, mergers and acquisitions, real options, financial engineering, securitization. Prerequisite: ECON 1110 or 1130; and ECON 1620 or 1630 or APMA 1650.
Fall ECON1720 S01 15561 MWF 1:00-1:50(09) (D. Brenner)
Fall ECON1720 S02 15605 MWF 2:00-2:50(09) (D. Brenner)
Spr ECON1720 S01 25040 TTh 9:00-10:20(03) (N. Mehrotra)

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.
Fall ECON1750 S02 16511 MWF 11:00-11:50(04) (D. Brenner)

ECON 1760. Financial Institutions.
This course analyzes the role of financial institutions in allocating resources, managing risk, and exerting corporate governance over firms. After studying interest rate determination, the risk and term structure of interest rates, derivatives, and the role of central banks, it takes an international perspective in examining the emergence, operation, and regulation of financial institutions, especially banks. Prerequisites: ECON 1110 or 1130; and 1210. Enrollment limited to 100.
Fall ECON1760 S01 15588 MWF 1:00-1:50(05) (D. Wyss)

ECON 1770. Fixed Income Securities.
The fixed income market is much larger than the stock market in the U.S. Topics covered in this course include basic fixed income securities, term structure, hedging interest rate risk, investment strategies, fixed income derivatives, mortgage-backed securities and asset-backed securities. Prerequisite: ECON 1110 or 1130; and ECON 1620 or 1630 or APMA 1650; and ECON 1710 or 1720. Enrollment limited to 100.
Fall ECON1770 S01 15589 WF 10:00-10:50(03) (D. Wyss)
Fall ECON1770 S01 15589 MW 10:00-10:50(03) (D. Wyss)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
<th>Schedule</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 1790</td>
<td>Corporate Governance and Management</td>
<td>M. Dean</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 1820</td>
<td>Behavioral Economics</td>
<td></td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 1850</td>
<td>Theory of Economic Growth</td>
<td>M. Dean</td>
<td>Fall 10:30-11:50(13)</td>
<td></td>
</tr>
<tr>
<td>ECON 1870</td>
<td>Game Theory and Applications to Economics</td>
<td>O. Galor</td>
<td>Fall 10:30-11:50(13)</td>
<td></td>
</tr>
<tr>
<td>ECON 1940</td>
<td>Current Economic Research: Undergraduate Seminar</td>
<td>T. Nguyen</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 1960</td>
<td>Honors Tutorial for Economics Majors</td>
<td>R. Serrano</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 1970</td>
<td>Independent Research</td>
<td>E. Renault</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2010</td>
<td>Mathematics for Economists</td>
<td>M. Dean</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2020</td>
<td>Applied Economics Analysis</td>
<td>A. Sautmann</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2030</td>
<td>Introduction to Econometrics I</td>
<td>A. Sautmann</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2040</td>
<td>Econometric Methods</td>
<td>E. Renault</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2050</td>
<td>Microeconomics I</td>
<td>G. Loury</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2060</td>
<td>Microeconomics II</td>
<td>J. Fanning</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2070</td>
<td>Macroeconomics I</td>
<td>J. Blaum</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2080</td>
<td>Macroeconomics II</td>
<td>J. Blaum</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2090</td>
<td>Topics in Microeconomics: Decision Theory and Evidence</td>
<td>J. Blaum</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2160</td>
<td>Risk, Uncertainty, and Information.</td>
<td>G. Loury</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
<tr>
<td>ECON 2180</td>
<td>Game Theory</td>
<td>J. Fanning</td>
<td>Fall 09:00-10:20(02)</td>
<td></td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ECON 2320. Economics of Labor and Population.
This course examines identification issues in empirical microeconomics. Focus on the sensible application of econometric methods to empirical problems in economics and policy research – particularly labor and population economics. The course examines issues that arise when analyzing non-experimental data and provides a guide for tools that are useful for applied research. The course also emphasizes how a basic understanding of theory and institutions can help inform the analysis. By the end of the course, students should have a firm grasp of the types of research designs and methods that can lead to convincing analysis and be comfortable working with large-scale data sets.
Fall ECON2320 S01 15558 TTh 10:30-11:50(13) (K. Chay)

ECON 2360. Economics of Health and Population.
An introduction to current research in the economics of health and population. Focuses on studies of empirically-tractable and tested models of individual, household, and firm behaviors and how these behaviors interact through markets and other institutions. Among the subjects considered are the economics of fertility and marriage, the operation of the health services sector, and the implications of population aging.
Spr ECON2360 S01 25993 TTh 10:30-11:50(09) (E. Oster)

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.
Fall ECON2410 S01 25941 TTh 2:30-3:50(11) (M. Turner)

ECON 2420. The Structure of Cities.
This course covers standard urban land use theory, urban transportation, sorting across political jurisdictions, hedonics, housing, segregation and crime. Empirical examples are taken primarily from the United States. After taking the course, students will have an understanding of standard urban theory and of empirical evidence on various important applied urban topics. In addition, students will gain practical experience in manipulating spatial data sets and simulating urban models.
Fall ECON2420 S01 14601 MW 9:00-10:20(16) (N. Baum-Snow)

ECON 2450. Exchange Scholar Program.
Fall ECON2450 S01 14397 Arranged 'To Be Arranged'
Spr ECON2450 S01 23768 Arranged 'To Be Arranged'

ECON 2470. Industrial Organization.
Monopolistic competition, market structure and entry, nonprice competition, economics of information.
Spr ECON2470 S02 25892 M 9:00-11:30(02) (J. Hastings)

ECON 2480. Public Economics.
Theoretical and empirical analysis of the role of government in private economies. Topics include welfare economics, public goods, externalities, income redistribution, tax revenues, public choice, and fiscal federalism.
Fall ECON2480 S01 15555 F 1:00-3:20(06) (J. Hastings)

ECON 2490. Public Finance II: Topics in Individual Taxation and Human Capital.
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 25872 TTh 1:00-2:20(10) (N. Hilger)

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; market frictions and sharecropping arrangements; and environmental externalities (e.g., pollution, water usage, etc.), and sustainable development.
Spr ECON2510 S02 25812 W 5:30-7:50(14) (S. Nagavaranu)

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 16586 MW 10:30-11:50(03) (A. Saumann)

ECON 2530. Behavioral and Experimental Economics.
An introduction to the methodology of experimental economics with an emphasis on experiments designed to illuminate problems in organizational design and emergence of institutions, and experiments investigating the operation of social and social-psychological elements of preference such as altruism, inequality aversion, reciprocity, trust, concern for relative standing, envy, and willingness to punish norm violators. Experiments studied will include ones based on the prisoners’ dilemma, dictator game, ultimatum game, and especially the voluntary contribution mechanism (public goods game) and the trust game.
Fall ECON2530 S01 15554 MW 9:00-10:20(03) (L. Puttermann)

ECON 2580. International Trade.
General equilibrium analysis of the theory of international trade and trade policy under perfect competition; trade under imperfect competition; strategic trade policy; trade and growth; and the political economy of trade policy determination. Empirical analysis of trade theories and policy. Additional topics include the theory of preferential trading areas, trade and labor, and the analytics of trade policy reform.
Fall ECON2580 S01 15560 TTh 2:30-3:50(11) (J. Eaton)

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.
Spr ECON2600 S01 26027 MW 1:00-2:20(06) (A. Norets)

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.
Spr ECON2630 S01 25042 TTh 2:30-3:50(08) (S. Schennach)

ECON 2640. Microeconometrics.
Topics in microeconometrics treated from a modern Bayesian perspective. Limited and qualitative dependent variables, selectivity bias, duration models, panel data.
Fall ECON2640 S01 15559 TTh 1:00-2:20(10) (F. Kleibergen)

Method of Moments (GMM) and Empirical Likelihood (EL). Kernel methods for density and regression estimation. Optimal instruments and local EL. Applications to non-linear time series models, Euler equations and asset pricing.
Spr ECON2660 S01 24885 MW 2:30-3:50(07) (E. Renault)

ECON 2830. Dynamic Optimization and Economic Growth.
The role of human capital, income distribution, population growth, technological progress, and international trade in the determination of differences in growth performance across countries. Inequality and economic growth. Technological progress and wage inequality. The transition from stagnation to sustained growth. Evolution and growth.
Fall ECON2830 S01 15592 F 9:00-11:20(16) (G. Galor)

ECON 2840. Empirical Analysis of Economic Growth.
Examines economic growth, focusing on the effects of technological change, fertility, income inequality, and government policy. ECON 2830 is strongly recommended.
Spr ECON2840 S01 24930 TTh 9:00-10:20(08) (D. Weil)
ECON 2890A. Topics in Macroeconomics, Development and Trade. This is a graduate class that covers selected topics at the intersection of macroeconomics, economic development and trade, 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 ECON2890F S01 25687 MW 10:30-11:50(03) (J. Blaum)

ECON 2890B. Economics 2890B: Topics in Economic Growth. The course examines in depth endogenous growth theory, with a focus on what is called innovation-based, or "Schumpeterian" growth theory. This theory focuses on industrial innovations arising from R&D as the mainspring of economic growth. It integrates the microeconomic theory of R&D into a macroeconomic growth model, making clear who gains and who loses from technological change, and showing how long-run growth is determined by the competitive process of creative destruction. The course will cover the details of model building and will also survey some of the literature confronting the theory with empirical evidence.

Fall ECON2890F S01 16360 W 1:00-3:20(06) (S. Michalopoulos)


Fall ECON2930 S01 14678 Th 4:00-5:30(02) (A. Foster)
Spr ECON2930 S01 24017 Th 4:00-5:30(17) (J. Eaton)

ECON 2950. Workshop in Econometrics. No description available.

Fall ECON2950 S01 14679 T 4:00-5:30(18) (A. McCluskey)
Spr ECON2950 S01 24018 T 4:00-5:30(16) (A. McCluskey)

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

Fall ECON2960 S01 14680 W 4:00-5:30(17) (J. Blaum)
Spr ECON2960 S01 24019 W 4:00-5:30(14) (O. Galor)


Fall ECON2970 S01 14681 M 4:00-5:30(15) (R. Serrano)
Spr ECON2970 S01 24021 M 4:00-5:30(13) (M. Dean)

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.

Fall ECON2980 S01 14398 Arranged 'To Be Arranged'
Spr ECON2980 S01 23769 Arranged 'To Be Arranged'

Education

EDUC 0400. The Campus on Fire: American Colleges and Universities in the 1960’s. Ole Miss, Berkeley, Columbia, and Kent State: just a few of the campus battlegrounds where conflicts over civil rights, the Vietnam War, and other major issues were fought in the 1960’s. Students consult primary and secondary sources about higher education’s role in these conflicts, and the consequences of its involvement still linger today. Enrollment limited to 20 first year students. FYS WRIT

Fall EDUC0400 S02 14632 MW 11:00-11:50(04) (L. Spoehr)

EDUC 0410E. Empowering Youth: Insights from Research on Urban Adolescents. Together, we consider the design, analysis, and interpretation of research on youth in urban settings. In doing so, we examine the roles of power, privilege, and multiculturalism in research. In the experiential component of the course, students engage in fieldwork in a local school or community-based youth organization. As part of their fieldwork, students design and undertake a research project, thereby bridging theory with practice. Reserved for First Year students. Enrollment limited to 20 first year students. Instructor permission required. FYS DPLL WRIT

Spr EDUC0410E S01 25455 MW 10:00-10:50(03) (M. Martin)

EDUC 0610. Brown v. Board of Education. Using sources in history, education, and law this course will explore the landmark Supreme Court case of Brown v. Board of Education which found school segregation unconstitutional and challenged the entire foundation of legal segregation. We will explore the legal, political, and social issues that culminated in Brown and examine the development and deployment of remedies, with particular emphasis on school integration and educational equity. We will consider the legacy of Brown for education and explore the meaning of equity in the past and present. Enrollment limited to 20 sophomore students. DPLL WRIT LILE SOPH

Fall EDUC0610 S01 16224 M 3:00-5:30(15) (T. Steffes)

EDUC 0800. Introduction to Human Development and Education. Introduces the study of human development and education from infancy through young adulthood. Provides a broad overview of scientific understanding of how children develop and how research is generated in the field. Major topics include biological foundations, mind, cognition, language, emotion, social skills, and moral understanding based on developmental theories and empirical research. The educational implications of research on human development are discussed.

Fall EDUC0800 S01 14778 Th 2:30-3:30(11) (J. Li)

EDUC 0850. History of Intercollegiate Athletics. This team-taught course traces the changing place of intercollegiate athletics on the American college campus over the past 150 years. Topics examined include, among others, the historical relationship between academic and athletic pursuits; commercialization and professionalization; the role of the NCAA and of the media; the cult of the coach; and the significance of race, gender, and class. Emphasis on critical reading, active participation in discussion, and developing research and writing skills. The course will meet twice weekly, sometimes as a whole and sometimes in smaller groups, to discuss readings, films, and guest presentations. Enrollment limited to 30.

Spr EDUC0850 S01 23938 TTh 10:30-11:50(09) (L. Spoehr)

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 14634 M 3:00-5:30(15) (D. Bisaccio)

EDUC 1010. The Craft of Teaching. What is the "craft of teaching"? A wide variety of texts are used to investigate the complexity of teaching and learning. Considering current problems as well as reform initiatives, we examine teaching and learning in America from the perspectives of history, public policy, critical theory, sociology, and the arts. Weekly journals and reading critiques; final portfolio presented to the class.

Fall EDUC1010 S01 14682 Th 4:00-6:30(02) (E. Shed)

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 14782 TTh 1:00-2:30(10) (T. Steffes)

EDUC 1060. Politics and Public Education. Who exercises power in public education? This course examines the key institutions (e.g. school districts, states, Congress, and the courts) and
actors (e.g., parents, teachers, interest groups, and the general public) shaping American K–12 education in order to understand recent policy trends and their consequences for students. Major policies discussed include school finance, textbook adoption, school accountability, and school choice. Particular attention is given to the federal No Child Left Behind Act of 2001 and debates over its reauthorization. Previous coursework in American politics or public policy is suggested but not required.

EDUC 1070A. Student Teaching: English. S/NC.
Fall EDUC1070FS01 14665 Arranged (L. Snyder)
Spr EDUC1070AS01 23959 Arranged (L. Snyder)

EDUC 1070B. Student Teaching: History and Social Studies. S/NC.
Fall EDUC1070ES01 14666 Arranged (E. Shed)
Spr EDUC1070BS01 23960 Arranged (E. Shed)

EDUC 1070C. Student Teaching: Science. S/NC.
Fall EDUC1070CS01 14892 Arranged (D. Bisaccio)
Spr EDUC1070CS01 23961 Arranged (D. Bisaccio)

EDUC 1080A. Analysis of Teaching: English. S/NC.
Fall EDUC1080S01 14664 W 4:30-7:00(17) (L. Snyder)
Spr EDUC1080AS01 23957 W 4:30-7:00(14) (L. Snyder)

EDUC 1080B. Analysis of Teaching: History and Social Studies. S/NC.
Fall EDUC1080ES01 14663 W 4:30-7:00(17) (E. Shed)
Spr EDUC1080BS01 23958 W 4:30-7:00(14) (E. Shed)

EDUC 1080C. Analysis of Teaching: Science. S/NC.
Fall EDUC1080CS01 14637 W 4:30-7:00(17) (D. Bisaccio)
Spr EDUC1080CS01 23942 W 4:30-7:00(14) (D. Bisaccio)

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, sociocultural, 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 a collaborative group project with a presentation.

Spr EDUC1090 S01 25737 M 3:00-5:30(13) (L. Snyder)

EDUC 1100. Introduction to Qualitative Research Methods. Designed for sophomores or juniors concentrating in education studies, but also open to other undergraduates interested in qualitative research methods. Through readings, class exercises and discussions, and written assignments, examines issues related to the nature of the qualitative research methods that are commonly used in education, psychology, anthropology, and sociology. Enrollment limited to 20.

Spr EDUC1100 S02 25889 M 3:00-5:30(13) (M. Martin)


Spr EDUC1110 S01 25736 TTh 9:00-10:20(08) (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 microeconomics and uses them to analyze these and other policy questions. Organized around a structured sequence of readings. First year students require instructor permission.

Fall EDUC1130 S01 14662 MWF 12:00-12:50(12) (J. Tyler)

EDUC 1150. Education, the Economy and School Reform. Changes in the economy have had dramatic negative consequences for those without a college degree. This seminar explores the impact of these changes on workplace organization and the demand for skills, on what is taught in schools, and on school reform. Prerequisites: Education and PP concentrators, EDUC 1130 and EDUC 1110 (or equivalent); Economics concentrators, ECON 1110 or ECON 1130, and ECON 1620. Enrollment limited to 20. WRIT

Spr EDUC1150 S01 23945 TTh 2:30-3:50(11) (M. Kraft)

EDUC 1200. History of American School Reform. Examines a century of efforts to improve schooling in the U.S., from John Dewey to Theodore Sizer and E.D. Hirsch, from “social efficiency” to charter schools and No Child Left Behind. How have these movements been affected by the historical contexts in which they operated? Have they produced any lasting results? How, if at all, should current reform movements be informed by the experiences of the past? Enrollment limited to 40.

Spr EDUC1200 S01 23937 MWF 11:00-11:50(04) (L. Spoehr)

EDUC 1270. Adolescent Psychology. Provides systematic treatment of the psychological, biological, and sociocultural nature of the adolescent. Both an individual and a collective perspective on the nature of the adolescent and adolescence are used to provide an analytical and comprehensive understanding of the complex environment and psyche of the adolescent. Readings include theoretical and empirical papers from such areas as psychology, sociology, anthropology, and education.

Spr EDUC1270 S01 24124 MWF 12:00-12:50(08) (M. Abo-Zena)

EDUC 1430. The Psychology of Race, Class, and Gender. Focuses on the social construction of race, class, and gender and how this construction influences an individual’s perception of self and other individuals. Topics include identity development, achievement, motivation, and sociopolitical development. Enrollment limited to 30. WRIT

Fall EDUC1430 S01 14777 TTh 9:00-10:20(08) (M. Abo-Zena)

EDUC 1450. The Psychology of Teaching and Learning. Seeks both to demystify the process of teaching and to illuminate its complexities. Assists students with such questions as: What shall I teach? How shall I teach it? Will my students respond? What if I have a discipline problem? Focuses on the teaching-learning process and student behavior, as well as research, theory, and illustrations concerned with classroom applications of psychological principles and ideas. Prerequisites: EDUC 0800 or EDUC 1710. Enrollment limited to 50.

Fall EDUC1450 S01 14780 Th 4:00-6:20(02) (M. Martin)

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 24123 MWF 1:00-1:50(06) (J. Li)

EDUC 1630. Strategic Management for School System Excellence. Despite expending significant energy on education reform in this country and globally, most efforts fail to achieve their lofty ambitions, due to for complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
their reliance on "silver bullet" strategies and/or poor execution. This course will focus on management approaches to improving school system performance, enabling students to (a) explore key education reform strategies; (b) adopt a senior management mindset through weekly discussion of case studies; and (c) broaden their perspective through use of domestic and global school system examples. The course is appropriate for juniors, seniors and graduate students, who bring an interest in education and a commitment to active classroom discussion. Enrollment limited to 24.

EDUC 1650. Policy Implementation in Education.
This course offers an "analytical foundation" for students interested in public policy implementation, with particular emphasis on education. Drawing on social science research, the course examines strengths and limitations of several frameworks, including the "policy typology" school of thought, the rational actor paradigm, the institutional analysis, the bargain model, the organizational-bureaucratic model, and the "consumer choice" perspective. Enrollment limited to 20. WRIT Spr EDUC1650 S01 24027 W 3:00-5:30(14) (K. Wong)

EDUC 1700. The Asian American Experience in Higher Education.
This course is an inter-disciplinary exploration of Asian Americans in higher education and the impact of their participation on the broader academic landscape. It considers the historical roots of Asian American collective identity; the evolution of Asian American Studies programs; consequences of the model minority myth; and the psychosocial and structural barriers to participation and academic achievement across different Asian American groups as compared to other racial/ethnic minority groups. Enrollment limited to 20. DPLL LILE Fall EDUC1700 S01 14775 MW 8:30-9:50(16) (L. Caria-GaLo)

EDUC 1710. History and Theories of Child Development.
An examination of child development from a historical and theoretical perspective, including key historical figures such as Darwin, Hall, Baldwin, Binet, Freud, Watson, Piaget, Vygotsky, Gesell, McGraw, Bowlby, and Bayley. Explores theoretical conceptualizations of children and adolescents and investigates the representations of children in popular culture, governmental legislation, education, and public policy. Fall EDUC1710 S01 14776 MW 1:00-2:50(06) (M. Abo-Zena)

EDUC 1720. Urban Schools in Historical Perspective.
Why did urban schools, widely viewed as the best in the nation in the early twentieth century, become a "problem" to be solved by its end? How have urban schools been shaped by social, economic, and political transformations in cities and by other public policies? How have urban schools changed over time? This course will ask these and other questions to explore how historical perspective can help us better understand urban schools today. We will analyze the impact of changes in demographics, urban renewal and suburban development, the political economy of cities, educational expectations, and demands for equity. Enrollment limited to 20. Spr EDUC1720 S01 24126 M 3:00-5:30(13) (T. Steffes)

EDUC 1740. Academic Freedom on Trial: A Century of Campus Controversies.
Inside and outside the classroom—for professors, students, administrators, and others—academic freedom has been contested by forces external and internal to the university. This course focuses on challenges to and changes in the definition and application of "academic freedom" from the end of the 19th century to the present day, with particular attention to academic freedom during times of crisis, especially wartime, and includes consideration of current issues such as speech codes, corporate and government funding of research, and the place of religion in academic life. Enrollment limited to 40. WRIT Fall EDUC1740 S01 14633 MWF 2:00-2:50(07) (L. Spoehr)

EDUC 1850. Moral Development and Education.
Examines contending approaches to moral development and its fostering in the home, school and peer group. Topics include philosophical underpinnings of moral theory, cognitive and behavioral dynamics of moral growth, values climate of contemporary American society, the role of schooling, and variations attributable to culture and gender. Prerequisites: EDUC 0800, 1270, or 1710, or CLPS 0610 (COGS 0630), or CLPS 0600 (PSYC 0810). Enrollment limited to 30. WRIT Fall EDUC1850 S01 14779 W 3:00-5:30(17) (J. Li)

EDUC 1860. Social Context of Learning and Development.
Focuses on the social environment that contributes to the development of children’s minds, language, self-understanding, relations with others, affect, and attitudes toward learning. Examines the period from birth through young adulthood. Topics include children’s social interactions, parental expectations and socialization practices, and the influences of family, peers, school, and media. Prerequisites: EDUC 0800, EDUC 1270, EDUC 1430, EDUC 1580, EDUC 1710, CLPS 0610 (COGS 0630), or equivalent. Enrollment limited to 30. WRIT Spr EDUC1860 S01 24125 Th 4:00-6:30(17) (J. Li)

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.

EDUC 2070A. Student Teaching: English.
S/NC. Fall EDUC2070A S01 14922 Arranged (L. Snyder)
Spr EDUC2070A S01 23951 Arranged (L. Snyder)

EDUC 2070B. Student Teaching: History and Social Studies.
S/NC. Fall EDUC2070B S01 14923 Arranged (E. Shed)
Spr EDUC2070B S01 23952 Arranged (E. Shed)

EDUC 2070C. Student Teaching: Science.
S/NC. Fall EDUC2070C S01 14924 Arranged (D. Bisaccio)
Spr EDUC2070C S01 23953 Arranged (D. Bisaccio)

EDUC 2080A. Analysis of Teaching: English.
No credit course. Fall EDUC2080A S01 14669 W 4:30-7:00(17) (L. Snyder)
Spr EDUC2080A S01 23954 W 4:30-7:00(14) (L. Snyder)

EDUC 2080B. Analysis of Teaching: History and Social Studies.
No credit course. Fall EDUC2080B S01 14789 W 4:30-7:00(17) (E. Shed)
Spr EDUC2080B S01 23956 W 4:30-7:00(14) (E. Shed)

EDUC 2080C. Analysis of Teaching: Science.
No credit course. Fall EDUC2080C S01 14636 W 4:30-7:00(17) (D. Bisaccio)
Spr EDUC2080C S01 23943 W 4:30-7:00(14) (D. Bisaccio)

EDUC 2120. Practicum and Seminar in Elementary Education.
Students participate in an elementary classroom for 2 1/2 days a week for 12 weeks, participating in all aspects of the school day. Students assume responsibility for individualized instruction, small groups and some daily routines. Examines topics in child development; race, class, ethnic and linguistic diversity; assessment; teaching and learning as well as topics arising from the experiences in classrooms. S/NC. Fall EDUC2120 S01 14784 Th 4:00-6:30(02) (J. Epstein)

Using a developmental approach, students are introduced to the major concepts and teaching methods used in elementary math and science classrooms. S/NC.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 EDU2350 S01 23947 M 4:00-6:30(13) (J. Tyler)

EDUC 2360. Policy Analysis and Program Evaluation for Education.
Informed education policymaking requires reliable information about the causal effects of government programs and other factors shaping educational outcomes. This course offers an overview of education policy analysis with an emphasis on econometric strategies for measuring program impacts. It aims to make students critical consumers of policy evaluations and to equip them with tools to conduct their own research. Topics covered include the political context for policy research, social experiments, alternative strategies for making causal inferences, and cost-benefit analysis. Prerequisites: EDUC 1110, POLS 1600, SOC 1100, or written permission of the instructor.
Spr EDU2360 S01 23948 Th 4:00-6:30(17) (J. Papay)

EDUC 2370. Internship.
Students in the Urban Education Policy Master’s Program participate in year-long internships in organizations that focus on urban education policy. Each student works with his or her site supervisor to develop a job description for the internship that allows the student to learn from and contribute to the work of the host organization.
Fall EDUC2370 S01 14641 Arranged (K. Wong)

EDUC 2380. Internship.
Students in the Urban Education Policy Master’s Program participate in year-long internships in organizations that focus on urban education policy. Each student works with his or her site supervisor to develop a job description for the internship that allows the student to learn from and contribute to the work of the host organization.
Spr EDU2380 S01 23949 Arranged (K. Wong)

EDUC 2450. Exchange Scholar Program.

EDUC 2980. Studies in Education.
Independent study; must be arranged in advance. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

EDUC 2990. Thesis Preparation.
No description available.
Fall EDUC2990 S01 14399 Arranged 'To Be Arranged'
Spr EDUC2990 S01 23770 Arranged 'To Be Arranged'

EDUC XLIST. Courses of Interest to Concentrators in Education.

Egyptology and Ancient Western Asian Studies

Ancient Western Asian Studies

AWAS 0200. Introduction to Akkadian.
This course is an intensive introduction to the writing system, grammar and vocabulary of Akkadian, the language of ancient Mesopotamia (modern Iraq). Akkadian is the earliest known Semitic language (related to Arabic and Hebrew), first written over four thousand years ago, and the language of some of the oldest written myths, historical documents, omen's, magical formulas and even love poems in the world. Students will learn the classic Old Babylonian dialect (ca. 1800 BCE), and read selections from texts in the original language. No prerequisites.
Fall AWAS0200 S01 15153 MWF 11:00-11:50(04) (M. Rutzi)

AWAS 0210. Intermediate Akkadian.
This course is the second semester of an intensive, yearlong introduction to the Akkadian (Babylonian/Assyrian) language. Students will deepen their knowledge of the cuneiform writing system and continue to develop their grasp of Akkadian grammar. Readings from Mesopotamian texts in the original language will include, among others, selections from the Laws of Hammurapi, Assyrian historical texts (such as the accounts of Sennacherib’s siege of Jerusalem), and the story of the Flood from the Standard Babylonian Epic of Gilgamesh. Prerequisite: Introduction to Akkadian (AWAS0200) or permission of the instructor.
Spr AWAS0210 S01 24463 MWF 11:00-11:50(04) (M. Rutzi)

AWAS 0800. Introduction to the Ancient Near East.
This course offers an introduction to the study of the political, social and cultural history of the ancient Near East, from prehistory to the end of the Iron age (ca. 330 BC). Both literary sources and archaeological evidence are examined as relevant. Near East is understood as much of its geographic extent, including primarily the Mesopotamian lowlands, and the Levantine coast. The course not only offers a foundational survey of the historical developments in the region, but also addresses the broader methodological and historiographic
problems involved in Near Eastern studies. State formation and the development of complex societies, cult practices and cuneiform literary traditions, art, architecture and material culture, issues of landscape and settlement systems, agricultural production, regional and interregional trade, and craft production will constitute the central issues in the course. WRIT DPLL

AWAS 1100. Imagining the Gods: Myths and Myth-making in Ancient Mesopotamia.
Creation, the Flood, the Tower of Babel—well-known myths such as these have their origins in ancient Mesopotamia, the land between the Tigris and Euphrates Rivers. Using both ancient texts in translation and archaeology, this course will explore categories of Mesopotamian culture labeled "myth" and "religion" (roughly 3300-300 BCE), critically examining the ancient evidence as well as various modern interpretations. Topics will include myths of creation and the flood, prophecy and divination, death and the afterlife, ritual, kingship, combat myths and apocalypses, the nature and expression of ancient religious experience, and representations of the divine. There are no prerequisites. WRIT DPLL

AWAS 1600. Astronomy Before the Telescope.
This course provides an introduction to the history of astronomy from ancient times down to the invention of the telescope, focusing on the development of astronomy in Babylonia, 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. DPLL

AWAS 1650. Time in the Ancient World.
Time plays many roles in civic and everyday life: calendars provide a way of regulating activities ranging from gathering taxes to knowing when to perform religious rituals. This course will provide an introduction to the way time was measured, used, regulated and conceived in the ancient world. We will cover topics such as the calendars used in Mesopotamia, Egypt, Greece and China, sundials and other instruments used for measuring time in the ancient world, and the way time is used in scientific and non-scientific texts. WRIT

AWAS 2400. Akkadian Literary and Religious Texts.
Readings in Akkadian literary and religious texts in the original language and script. Possible genres include myths, proverbs, and literary miscellanea as well as prayers, hymns, incantations, rituals, prophecies, and divinatory texts. This course is intended primarily for graduate students and may be repeated for credit. A reading knowledge of Akkadian cuneiform is required. A reading knowledge of both German and French is recommended but not required. Fall

AWAS 2900. Introduction to Hittite Language and Literature.
This course is an introduction to Hittite language, literature, and culture. Hittite, the earliest attested Indo-European language (thus related to Greek, Latin, and Sanskrit) was used in Anatolia during the second millennium BCE. It survives in tens of thousands of tablets written in cuneiform script. Students will learn the basic grammar of the language and read in the original or in translation specimens from the fascinating textual legacy of the Hittites, which includes myths, prayers, laws, diplomatic texts as well as formal and informal letters. They will also become familiar with the cultural environment in which those texts were composed. Fall

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

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

Fall AWAS2990 S01 14381 Arranged 'To Be Arranged'
Spr AWAS2990 S01 23754 Arranged 'To Be Arranged'

AWAS XLIST. Courses of Interest to Concentrators in Ancient Western Asian Studies.

Fall 2014
The following courses may be of interest to Ancient Western Asian Studies concentrators. Please see the sponsoring department for the time and location of each course.

Archaeology and the Ancient World
ARCH 0150 Introduction to Egyptian Archaeology

Spring 2015
The following courses may be of interest to Ancient Western Asian Studies concentrators. Please see the sponsoring department for the time and location of each course.

Religious Studies
RELS 0640 Dying to be with God: Jihad, Past and Present

Egyptology

EGYT 1310. Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian I).
Much of this two-semester sequence is spent learning the signs, vocabulary, and grammar of one of the oldest languages known. By the end of this introductory year, students read authentic texts of biographical, historical, and literary significance. The cornerstone course in the Department of Egyptology-essential for any serious work in this field and particularly recommended for students in archaeology, history, classics, and religious studies. No prerequisites.

EGYT 1320. Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian II).
Continuation of a two-semester sequence spent learning the signs, vocabulary, and grammar of one of the oldest languages known. By the end of this introductory year, students read authentic texts of biographical, historical, and literary significance. The cornerstone course in the Department of Egyptology-essential for any serious work in this field and particularly recommended for students in archaeology, history, classics, and religious studies. Prerequisite: EGYT 1310.

EGYT 1330. Selections from Middle Egyptian Hieroglyphic Texts.
Readings from the various genres of classical Egyptian literature, including stories and other literary texts, historical inscriptions, and religious compositions. Students will be expected to translate and discuss assigned texts. Prerequisite: EGYT 1310, 1320.

EGYT 1410. Ancient Egyptian Literature.
A survey of one of the most intriguing aspects of ancient Egyptian culture. Readings (in translation) of many of the most significant literary documents that survive from Egypt. Presentation of a reasonable amount of historical perspective. Class discussions concerning the nature, purpose, quality, and effectiveness of the works read. Two term papers. No prerequisites. Offered in alternate years. WRIT

EGYT 1420. Ancient Egyptian Religion and Magic.
An overview of ancient Egyptian religion from both a synchronic and diachronic perspective. Examines such topics as the Egyptian pantheon, cosmology, cosmogony, religious anthropology, personal religion, magic, and funerary beliefs. Introduces the different genres of Egyptian religious texts in translation. Also treats the archaeological evidence which contributes to our understanding of Egyptian religion, including temple and tomb architecture and decoration. Midterm and final exams; one research paper. WRIT

The course explores medical practices and beliefs, including healing magic, in ancient Egypt, from the beginning of the Old Kingdom to the end of the Roman period, drawing evidence from both ancient texts (in translation) and archaeological sources. In addition to surveying ancient
Egyptian medical practices, the course investigates the social world of the physicians and their patients, and their views on their bodies and illnesses. Topics surveyed include medical handbooks and recipes, physicians' equipment and training, gods, demons and disease, pregnancy and childbirth, veterinary medicine, the health effects of the ancient Egyptian diet, and later myths about Egyptian medical knowledge. DPLL WRIT

EGYT 1910. Senior Seminar. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

EGYT 1920. Senior Seminar. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

EGYT 2610. Introduction to Demotic. Begins with discussions and exercises in the grammar and peculiar script of this late stage of the Egyptian language, followed by readings of actual ancient texts, including The Instructions of Onkhsheshonkhy, The Petition of Petiese, and The Story of Setne Khaemwes. Knowledge of Demotic remains essential for a proper understanding of Egypt during the Saite, Persian, Ptolemaic, and Roman periods. Open to undergraduates with consent of instructor. Prerequisites: EGYT 2410 or 2210.

Fall EGYT2610 S01 15162 Arranged (L. Depuydt)

EGYT 2850. Images, Ideology, and Egyptian Warfare. Images of violence and warfare are pervasive in Egypt, but their interpretation is not straightforward. What relationship is there between such images and historical events, ritual events, and royal ideology? How do such images function? This seminar will examine Egyptian images of violence and warfare from before the New Kingdom. It will take a contextual and comparative approach to discern patterns in the ways such images are used, with the goal being to understand why they were made rather than how they can be used to answer historical questions.

Spr EGYT2850 S01 26098 Th 9:00-10:30 (L. Bestock)

EGYT 2870. 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 EGYT2870 S01 14400 Arranged 'To Be Arranged'
Spr EGYT2870 S01 23771 Arranged 'To Be Arranged'

EGYT 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.

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

Fall EGYT2990 S01 14401 Arranged 'To Be Arranged'
Spr EGYT2990 S01 23772 Arranged 'To Be Arranged'

EGYT XLIST. Courses of Interest to Concentrators in Egyptology.

Engineering

ENGN 0020. Transforming Society-Technology and Choices for the Future. 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 24766 MWF 11:00-11:50(04) 'To Be Arranged'

ENGN 0030. Introduction to Engineering. An introduction to various engineering disciplines, thought processes, and issues. Topics include computing in engineering, engineering design, optimization, and estimation. Case studies in engineering are used to illustrate engineering fields and scientific principles, including in-depth studies of statics and optics. Laboratories and design projects are included. Prerequisite: one of the following: APMA 0330, 0340, 0350, 0360, MATH 0100, 0170, 0180, 0190, 0200, 0250, 0520, 0540, which may be taken concurrently.

Students MUST register for the course lecture (M01) and one of the sections during the SAME registration session. Banner will not allow a student to register for one component without registering for the other at the same time. Further, if you drop one component of the course on Banner, both components will be dropped.

Fall ENGN0030 M01 15964 F 9:00-9:50 (C. Briant)
Fall ENGN0030 S01 15963 MW 9:00-9:50(16) (C. Bull)
Fall ENGN0030 S01 15963 Th 9:00-10:20(16) (C. Bull)
Fall ENGN0030 S02 15965 MW 9:00-9:50(16) (K. Haberstroh)
Fall ENGN0030 S02 15965 T 2:30-3:50(16) (K. Haberstroh)
Fall ENGN0030 S03 15966 MW 9:00-9:50(16) (H. Gao)
Fall ENGN0030 S03 15966 T 9:00-10:20(16) (H. Gao)
Fall ENGN0030 S04 15967 MW 9:00-9:50(16) (P. Guduru)
Fall ENGN0030 S04 15967 Th 2:30-3:50(16) (P. Guduru)
Fall ENGN0030 S05 15968 MW 9:00-9:50(16) (C. Briant)
Fall ENGN0030 S05 15968 Th 4:00-5:20(16) (C. Briant)

ENGN 0040. Dynamics and Vibrations. Study of the kinematics and dynamics of particles and rigid bodies. Principles of motion of mechanical systems. Concepts of inertia, work, kinetic energy, linear momentum, angular momentum, and impact. Applications to engineering systems, satellite orbits, harmonic vibrations of one and two degree of freedom systems. Lectures, recitations, and laboratory. Prerequisite: ENGN 0030. Corequisite: MATH 0200 or 0180.

Spr ENGN0040 S01 24665 Th 9:00-10:20(06) (K. Kim)

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 15796 Th 1:00-2:20(18) (B. Hazeltine)
Fall ENGN0090 S02 16113 Th 2:30-3:50(18) (B. Hazeltine)
Fall ENGN0090 S03 16114 Th 6:40-8:00PM(18) (B. Hazeltine)

ENGN 0120A. Crossing the Consumer Chasm by Design. Technologies have shaped human life since tools were sticks and flints to today's hydrocarbon powered, silicon managed era. Some spread throughout society; bread, cell phones, airplanes, but most never do; personal jet packs, Apple Newton, freeze dried ice cream.

Space Tourism, the Segway, electric cars: Can we predict which ones will cross the chasm to broad application? Can we help them to by combining design, engineering, marketing, communications, education, art, and business strategies?

Student teams identify potential new products, conceptualize, package, and define their business mode. By plotting their course across the chasm, we confront the cross-disciplinary barriers to realizing benefits from technology.

Enrollment limited to 18 first year students. Instructor permission required.

FYS WRIT

ENGN 0120B. Crossing the Space Chasm Through Engineering Design. Five decades of human activity in space has provided the world community with benefits including instant global communications and positioning, human and robotic exploration of the moon, planets and sun, and a perspective of earth which continues to inform and influence our relationship with our environment.

Unlike other technical revolutions of the 20th century space has not transitioned to a commercial, consumer market commodity. Rather its users and applications remain primarily large and institutional.

To experience the challenges of engineering design and of changing an industrial paradigm, we will work in one or several groups to identify a use of space, and a plan for its implementation, that could help transition space from its status as a niche technology. Through the process of design, we will confront the technical, economic, societal and political barriers to obtaining increased benefits from technologies in general,
and space in particular, and to making new technologies beneficial to a wider range of users. Enrollment limited to 18 first year students. Instructor permission required. FYS WRIT
Spr ENGN120ES01 24749 MWF 2:00-2:50(07) (R. Fleeter)

ENGN 0130. The Engineer’s Burden: Why Changing the World is Difficult.
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 ENGN0130 S01 16474 MWF 11:00-11:50(04) (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 15439 Arranged (C. Bull)
Spr ENGN0260 S01 24751 Arranged (C. Bull)

Mechanical behavior of materials and analysis of stress and deformation in engineering structures and continuous media. Topics include concepts of stress and strain; the elastic, plastic, and time-dependent response of materials; principles of structural analysis and application to simple bar structures, beam theory, instability and buckling, torsion of shafts; general three-dimensional states of stress; Mohr’s circle; stress concentrations. Lectures, recitations, and laboratory. Prerequisite: ENGN 0030.
Fall ENGN0310 S01 15416 MWF 9:00-9:50(16) (C. Franck)

ENGN 0410. Materials Science.
Relationship between the structure of matter and its engineering properties. Topics: primary and secondary bonding; crystal structure; atomic transport in solids; defects in crystals; mechanical behavior of materials; phase diagrams and their utilization; heat treatment of metals and alloys; electrical, optical, and magnetic properties of materials; strengthening mechanisms in solids and relationships between microstructure and properties; corrosion and oxidation. Lectures, recitations, and laboratory. Prerequisite: ENGN 0030.
Fall ENGN0410 S01 15418 TTh 9:00-10:20(08) (E. Chason)
Fall ENGN0410 S01 15418 M 1:00-1:50(08) (E. Chason)

ENGN 0510. Electricity and Magnetism.
Fundamental laws of electricity and magnetism and their role in engineering applications. Concepts of charge, current, potential, electric field, magnetic field, resistance, capacitance, and inductance. Electric and magnetic properties of materials. Electromagnetic wave propagation. Lectures, recitation, and laboratory. Prerequisites: ENGN 0030 or PHYS 0070; ENGN 0040 or PHYS 0160 (previously 0080); MATH 0180 or 0200, and APMA 0330 or 0350 (may be taken concurrently).
Fall ENGN0510 S01 15419 MWF 10:00-10:50(03) (A. Zaslavsky)

ENGN 0520. Electrical Circuits and Signals.
An introduction to electrical circuits and signals. Emphasizes the analysis and design of systems described by ordinary linear differential equations. The frequency domain is introduced, including the effects of sampling and windowing in computer simulations. Other topics include transient analysis, Fourier series, and Laplace transform. Laboratories apply concepts to real problems in audio and controls. Lectures, recitation, and laboratory. Prerequisite: MATH 0180 or MATH 0200, courses may be taken concurrent to ENGN 0520.
Spr ENGN0520 S01 24606 MWF 10:00-10:50(03) (G. Taubin)

ENGN 0720. Thermodynamics.
An introduction to macroscopic thermodynamics and some of its engineering applications. Presents basic concepts related to equilibrium, and the zeroth, first and second laws for both closed and open systems. Examples include analysis of engines, turbines, and other engineering cycles, phase equilibrium and separation processes, chemical reactions, surface phenomena, magnetic and dielectric materials. Lectures, recitations, and laboratory. Prerequisites: ENGN 0030 or ENGN 0040. Recommended: ENGN 0410 or CHEM 0330.
Spr ENGN0720 S01 24607 TTh 10:30-11:50(09) (A. Peterson)

Fall ENGN0810 S01 15420 MWF 1:00-1:50(06) (K. Breuer)

ENGN 0900. Managerial Decision Making.
Ways of making effective decisions in managerial situations, especially situations with a significant technological component; decision analysis; time value of money; competitive situations; forecasting; planning and scheduling; manufacturing strategy; corporate culture. Lectures and discussions. Prerequisite: ENGN 0090 or MATH 0100.
Spr ENGN0900 S01 24752 TTh 1:00-2:20(13) (B. Hazeltine)
Spr ENGN0900 S02 24753 TTh 2:30-3:50(11) (B. Hazeltine)

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 24755 TTh 10:30-11:50(09) (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, iteration, woodworking, prototyping, CNC milling and laser cutting – in addition to other strategies that enhance our creative processes - as we establish a technical and conceptual foundation for the design and fabrication of objects and experiences. Enrollment limited to 16. Instructor permission required.
Spr ENGN0930C S01 24754 TTh 9:00-11:50(08) (C. Gonsher)

ENGN 0931. Internet of Everything.
The Internet can be visualized as Internet of information, Internet of people, Internet of places and most importantly the Internet of “things.” Internet of Everything includes these four paradigms. In this class, we will learn about how these four ideas can come together to make a difference in the world. We will study the underlying infrastructure that supports Internet, the TCP/IP model, addressing and routing. Experiments and projects in the class would include a tree on the Internet communicating with the sprinkler system only when it is thirsty. Privacy and ethical issues will also be addressed.
Spr ENGN0931 S01 25745 TTh 6:40-8:00PM(12) (R. Pendse)

ENGN 1000. Projects in Engineering Design.
Projects in design for concentrators in chemical, electrical, materials, and mechanical engineering. Students generally work in teams on projects that are defined through discussions with the instructor. An assembled product or detailed design description is the goal of the semester’s effort. Prerequisite: completion of engineering core program. Written permission required.
Fall ENGN1000 S01 15829 MW 3:00-5:20(17) (J. Fontaine)
Fall ENGN1000 S01 24750 MW 3:00-5:30(15) (J. Fontaine)

Entrepreneurship is innovation in practice: transforming ideas into opportunities, and, through a deliberate process, opportunities into commercial realities. These entrepreneurial activities can take place in two contexts: the creation of new organizations; and within existing organizations. This course will present an entrepreneurial framework for
these entrepreneurial processes, supported by case studies that illustrate essential elements. Successful entrepreneurs and expert practitioners will be introduced who will highlight practical approaches to entrepreneurial success. Enrollment limited to 35. WRIT

Fall ENGN1010 S01 15443 TTh 10:30-11:50(15) (D. Warshay)
Fall ENGN1010 S02 15444 M 6:00-8:30PM(15) (J. Cohen)
Spr ENGN1010 S01 24757 TTh 2:30-3:50(17) (P. McHugh)
Spr ENGN1010 S02 24758 TTh 10:30-11:50(17) (D. Warshay)

ENGN 1110. Transport and Biotransport Processes.
Aim: To develop a fundamental understanding of mass transport in chemical and biological systems. The course includes: mechanism of transport, biochemical interactions and separations; mass transport in reacting systems; absorption; membrane and transvascular transport; electrophoretic separations; pharmacokinetics and drug transport; equilibrium stage processes; distillation and extraction. Other features: design concepts; modern experimental and computing techniques; laboratory exercises.
Spr ENGN1110 S01 24609 MWF 1:00-1:50(06) (A. Shukla)

ENGN 120. Chemical and Biochemical Reactor Design.
Stoichiometry, thermodynamics, mechanisms, and rate expressions of homogeneous and heterogeneous chemical and biochemical systems. Basic concepts in homogeneous chemical and bio reactor design and ideal reactor models. Chemostats and enzymatic reactors. Optimization. Temperature and energy effects in reactors. Introduction to heterogeneous chemical and bioreactor design. Prerequisite: ENGN 0720 or physical chemistry. Offered in alternate years.
Fall ENGN120 S01 15421 TTh 1:00-2:20(10) (A. Peterson)

ENGN 1140. Process Chemical Design.
Chemical process synthesis, flow charting, and evaluation of design alternatives. Process equipment sizing as determined by rate phenomena, economics, and thermodynamic limitations. Introduction to optimization theory. Applications of these principles to case studies. Prerequisites: ENGN 1110, 1130; ENGN 1120 (may be taken concurrently).
Spr ENGN1140 S01 24610 TTh 6:40-8:00PM(12) 'To Be Arranged'

ENGN 1210. Biomechanics.
Spr ENGN1210 S01 24612 MWF 2:00-2:50(07) (T. Powers)

ENGN 1220. Neuroengineering.
Course Goals: To develop an advanced understanding of how signals are generated and propagated in neurons and neuronal circuits, and how this knowledge can be harnessed to design devices to assist people with neurologic disease or injury. Fundamental topics in neuronal and neural signal generation, recording methods, and stimulation methods. Clinical/Translational topics include multiple clinically available and emerging neurotechnologies. Prerequisites: NEUR 0010 and ENGN 0510; or instructor permission, which may be provided after discussion with course faculty.
Spr ENGN1220 S01 24614 TTh 1:00-2:20(10) (L. Hochberg)

ENGN 1230. Instrumentation Design.
Sensors for pressure, temperature, blood flow, muscle and neural activity. Amplifiers, filters, and A/D-D/A converters. The use of computers in monitoring and controlling physiological processes. Feedback controllers for temperature, flow rate, and experimental stimuli. Intended as a design course primarily for biomedical engineers. Lab times to be arranged. WRIT
Fall ENGN1230 S01 15422 MWF 10:00-10:50(03) (J. Daniels)

ENGN 1300. Structural Analysis.
A unified study of trusses, beam, frame, plate, and shell structures. Emphasis on principles of virtual work and numerical methods of elastic structural analysis by matrix methods. Includes calculation of deflections and reactions in beam structures, beam vibrations, and column buckling. Theorems of plastic limit analysis. Plate bending. Membrane stresses and local bending effects in axially symmetric shells. Prerequisite: ENGN 0310.
Spr ENGN1300 S01 24626 MWF 9:00-9:50(02) (P. Guduru)

ENGN 1340. Water Supply and Wastewater Treatment.
The hydrological cycle, surface water hydrology, ground water hydrology. Emphasis on the formulation of mathematical models of various flow problems and their solution by analytical or numerical means. Typical problems: open channel and river flows; flood routing; ground water flow in aquifers and into wells. Topics in wastewater treatment plant design: mixing, residence time, aeration, and, bacteriological and chemical treatment processes. Prerequisite: ENGN 0810. Enrollment limited to 40.
Spr ENGN1340 S01 24611 W 3:00-3:50(14) (I. Kulacs)

Classification and identification of geological materials; mechanical and physical properties and methods of testing. Elements of the analysis of stress and strain in rock and soil masses; theories of failure, theory of seepage. Problems of building foundations; consolidation and settlement; stability of earth slopes and embankments. Includes geotechnical laboratory. Prerequisite: ENGN 0310.
Spr ENGN1360 S01 24615 M 3:00-5:30(13) (D. Carchedi)

A unified study of the dynamics of particles, rigid bodies, and deformable continua. Generalized coordinates and Lagrange’s equations; variational principles; stability of equilibrium; vibrations of discrete systems and of elastic continua, and wave propagation. Prerequisites: ENGN 0040, APMA 0340, or equivalent.
Spr ENGN1370 S01 24627 TTh 9:00-10:20(08) (H. Karsi)

ENGN 1380. Design of Civil Engineering Structures.
This course provides an introduction to the design of steel and reinforced concrete structures using ultimate strength methods. Lectures will cover key concepts of design theory, building codes, and standards using examples from real structures. Students will apply concepts through computer labs, homework projects, and a design project. Lectures plus lab. Prerequisite: ENGN 1300.
Fall ENGN1380 S01 15426 TTh 6:40-8:00PM(05) (D. Odeh)

ENGN 1410. Physical Chemistry of Solids.
Application of physical chemistry and solid state chemistry to the structure and properties of engineering solids as used in solid state devices, ceramics, and metallurgy. Equilibrium and free energy of heterogeneous systems, thermodynamics of solutions, chemical kinetics, diffusion, catalysis and corrosion, solid state transformations. Case studies taken from industrial practice. Prerequisites: ENGN 0410, 0720.
Fall ENGN1410 S01 15428 MW 4:30-5:50(15) (A. van de Walle)

This course introduces the basic principles and formulations that describe kinetic processes in materials science and engineering. These are divided into the following principle types of mechanisms: solid state diffusion, reactions at surfaces and interfaces, and phase transformations. The final section of the course applies these principles to several relevant materials processing systems. Prerequisites: ENGN 0410, 0720, 1410 or equivalent.
Spr ENGN1420 S01 24618 TTh 9:00-10:20(08) (B. Sheldon)

Begins with basic concepts of mechanical properties common to all materials, with some emphasis on dislocation theory. Particular attention is given to the relationship between mechanical properties and microstructures. The different types of mechanical tests that are used in each of these fields are analyzed. Lectures plus laboratories. Prerequisite: ENGN 0410.
Fall ENGN1440 S01 15429 TTh 2:30-3:50(11) (P. Padture)

Focuses on the science of electronic materials, the materials at the heart of modern microelectronics and optoelectronics. Addresses fundamental issues controlling their properties, processing, and reliability. Topics include band structure of semiconductors, basic device structures (junctions and transistors), sputter deposition, molecular beam epitaxy, chemical vapor deposition, ion implantation, oxidation, and issues
effecting reliability. Materials challenges that must be resolved for future generations of electronic devices.

ENGN 1470. Structure and Properties of Nonmetallic Materials
A study of the structure and properties of nonmetallic materials such as glasses, polymers, elastomers, and ceramics. The crystal structure of ceramics and polymers, and the noncrystalline networks and chains of glasses, polymers, and elastomers and the generation of microstructures and macrostructures are considered. The mechanical, chemical, electrical, magnetic, and optical properties and their dependence on structure are developed. Laboratory. Prerequisite: ENGN 0410.
Spr ENGN1470 S01 24617 TTh 6:40-8:00PM(12) (G. Palmore)

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 15425 MWF 2:00-2:50(07) (I. Wong)

ENGN 1510. Nanoelectronics and Nanomedicine
Students in this course will develop a fundamental understanding of nanoelectronics and its applications in medicine. We will discuss nanomaterials synthesis, fabrication, and characterization. Applications of nanoelectrode-based materials in medicine, including nanotechnology-based drug delivery systems, nano-based imaging and diagnostics, and nanotechnology-based tissue engineering approaches will be explored in depth. Host response to nanomaterials and nanotoxicology will also be discussed. Research methods in nanoelectronics and nanomedicine will be emphasized (critical analysis of scientific literature, effective oral and written communication). This course is meant for graduate students and advanced engineering undergraduates. The following courses are recommended prerequisites (and/or permission of the professor): ENGN 1490 (Biomaterials) ENGN 1110 (Transport & Biotransport Processes)
Fall ENGN1510 S01 16532 MWF 10:00-10:50(03) (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 pre-clinical regenerative therapies, stem cell ethics, and clinical trials. Prerequisites (all courses completed or concurrent): calculus, differential equations, mechanics of materials, fluid dynamics, and biotransport.
Fall ENGN1520 S01 16576 MWF 2:00-2:50(07) (K. Coulome)

ENGN 1560. Applied Electromagnetics
Developing a good understanding of the principles of electromagnetics and applying them to contemporary EM topics, through examples in today’s applications: Antenna (from iPhone, to insects, and to RFID); Display optics (from LCD to Peacock feather); Guided waves (from microwave circuits to microwave oven); Diffractions and Interferences (from optical lithography limit to antireflection in solar cell and photodetector); and EM and optical properties of materials and nanostructures. Prerequisite: ENGN 0510 or PHYS 0470, or equivalent.
Spr ENGN1560 S01 24813 MWF 12:00-12:50(05) (J. Xu)

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 15430 MWF 1:00-1:50(06) (P. Felzenszwalb)

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 15431 MWF 10:00-10:50(03) (J. Xu)

ENGN 1600. Design and Implementation of Very Large-Scale Integrated Systems.
VLSI (Very Large Scale Integration) CMOS (Complementary Metal Oxide Semiconductor) technology is the main driver of our digital revolution. The goal of the course is to learn how to design and implement VLSI digital circuits and optimize them with respect to different objectives such as area, speed, and power dissipation. Design and analysis will be carried out using computer-aided tools. Prerequisite: ENGN 1630, or instructor permission.
Fall ENGN1600 S01 15582 MW 8:30-9:50(16) (R. Bahar)

ENGN 1610. Image Understanding.
Image processing is a technology experiencing explosive growth; it is central to medical image analysis and transmission, industrial inspection, image enhancement, indexing into pictorial and video databases, 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.
Fall ENGN1610 S01 15432 MWF 2:00-2:50(07) (B. Kimia)

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.
Fall ENGN1620 S01 24621 MWF 2:00-2:50(07) (J. Rosenztein)

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 15433 WF 3:00-4:20(17) (W. Patterson)

This course introduces the main concepts and techniques for designing computing systems. Topics covered include assembly language, instruction set design, pipelining, superscalar and VLIP 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 24622 MWF 10:00-10:50(03) (R. Bahar)

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 15434 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 device functions on the semiconductor platform is a central theme in a coordinated lecture and laboratory course. Topics include microcircuit photolithography; layout and design scaling rules for integrated circuits; and techniques in semiconductor and thin film processing as they apply to ULSI circuit manufacturing. Prerequisite: ENGN 1590 or permission. Spr ENGN1680 S01 24623 MWF 9:00-9:50(02) (D. Pacifici)

ENGN 1690. Photonics and Applications. Science and engineering principles of photonics and optoelectronics, that provide foundation to a broad range of technologies from internet to lighting, from lasers to DVD, from satellite images to computer display, from solar cells to single molecule detection. Topical content: light as waves in media, on surface, and through holes; interference and waveguiding; light generation by spontaneous emission or by stimulation; LED, Laser, Photodetector, Optical amplifier and modulator, etc. Prerequisite: ENGN 0510 or equivalent. Spr ENGN1690 S01 24624 TTh 2:30-3:50(11) (R. Zia)

ENGN 1700. Jet Engines and Aerospace Propulsion. Dynamics and thermodynamics of compressible internal flows with applications to jet engines for both power and propulsion, rocket engines and other propulsion systems. Thermodynamic analyses of engine cycles with and without afterburners. Fluid dynamics of high Mach number systems. Structural and Materials considerations for engine design. Team projects for analysis and design of novel jet engine concepts. Prerequisite: ENGN 0720 and 0810. Fall ENGN1700 S01 15435 MWF 11:00-11:50(04) (J. Liu)


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 24630 TTh 6:40-8:00PM(12) (B. Burke)


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, rad. 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 24631 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 24632 MWF 11:00-11:50(04) (S. Mandre)

ENGN 1930B. Photonics and Biophotonics. Biophotonics deals with interactions between light and biological matter that combine lasers, photonics, nanotechnology, and biotechnology. The course will introduce the biology/photonics interface and discuss topics like photobiology, biosensors, biophotographic techniques, light activated therapy, microarray technology, tissue engineering with light, and bionanophotonics. Prerequisites: science and engineering background. Spr ENGN1930B S01 24613 MWF 12:00-12:50(05) (S. Deoni)

ENGN 1930D. Large Scale Engineering Design Project. Provides a major design experience for civil, mechanical, and, with approval, environmental engineering students. This experience involves an open-ended design problem that requires teamwork and the integration of understanding developed in upper-level courses in the engineering concentrations. Intended for students in their senior year. Spr ENGN1930D S01 24616 TTh 6:40-8:00PM(12) (J. Marton)

ENGN 1930L. Biomedical Engineering Design, Research and Modeling. This course introduces students to design, modeling and analysis of biological systems. The first portion of the course focuses on linear systems. Research projects in design will be analyzed. The course also introduces students to the Matlab programming language, which allows them to implement the design models discussed in class. For seniors only. Fall ENGN1930L S01 15423 MW 8:30-9:50(16) (A. Tripathi)

ENGN 1930M. Industrial Design. Brown engineering and RISD industrial design faculty lead product development teams through a design cycle. Engineers explore industrial design, designers gain some insight into engineering, and both groups can apply their skills to challenging problems. Frequent presentations, field trips, critiques, and labs. Preference given to seniors. Prerequisites: completion of engineering core. Enrollment limited to 15 students. Fall ENGN1930M S01 15437 Arranged (C. Bull)

ENGN 1930S. Land Use and Built Environment: An Entrepreneurial View. Through the use of readings, group discussions, student presentations and guest lectures, students examine and challenge the analytical and structural frameworks which underlie and support public and private land and use the urban and suburban built environments. Students build an understanding and theory of how social, political, governmental and economic forces interact with society’s present and future physical space needs. Fall ENGN1930S S01 15442 W 9:00-11:50(16) (J. Mittelmann)

ENGN 1930U. Renewable Energy Technologies. Analysis of the thermodynamics, physics, engineering and policy issues associated with renewable and non-renewable energy technologies with applications appropriate to both the developed and the developing world. Specific technologies that will be studied include Fossil fuels, Wind, Solar, Hydro, Biomass and Nuclear. Energy consumption technologies, such as power generation and transportation will also be studied. Some technical background, such as ENGN 0030, 0040 and 0720, is strongly recommended. Spr ENGN1930U S01 24633 MWF 12:00-12:50(11) (C. Bull)

ENGN 1931D. Design of Mechanical Assemblies. An introduction to the design and development of mechanical assemblies suitable for production over a range of volumes, from prototypes to high volume manufacture. The course is intended to present an overview of basic machine components and manufacturing processes from the
perspective of a design engineer in a contemporary industrial setting. The objective of which being to provide students the background necessary to create mechanical assemblies from blank-page concepts through to production ready designs. Coursework will include both theoretical and experimental exercises as well as two group projects working on a mechanical assembly produced via high volume manufacture. Prerequisite: ENGN 0310, 1740. Enrollment limited to 20.

ENGN 1931E. Writing Science.
This seminar focuses on communicating scientific and technical information to a lay audience in ways that engage and inform. The focus is on writing about new findings, scientific disputes and policy debates, along with producing profiles, feature articles, op-eds and blog posts. Students who complete this seminar will learn how to turn a collection of facts into a story, ways of explaining complex topics in simple terms, and how to differentiate between crucial technical details and clutter. Proficiency in English is assumed. Permission from the instructor is required. Preference will be given to seniors and graduate students. Enrollment limited to 15.

ENGN 1931F. Introduction to Power Engineering.
An introduction to the generation, distribution and use of electrical energy in three-phase balanced systems. Topics include: properties of magnetic fields and materials; magnetic reluctance circuits; phasors and the properties of balanced three-phase voltage and current lines; generators; transformers and transmission lines; induction motors; brushless DC motors; power semiconductor switches; and the properties of solar photovoltaic sources and microturbine laboratory project. Prerequisites: ENGN 0510 and 0520.

The course will explore where the majority of "useful" energy originates today. Main fossil energy sources (e.g., coal, crude oil, gas, shale oil, tar sands) and their chemical characteristics will be considered. Environmental aspects of fuel production (mining, drilling), fuel conversion technologies, both for delivering heat and power, and why there are limitations on the conversion to the latter. Calculations of "carbon footprint" will be illustrated. Common examples of emissions control technologies, including carbon capture and sequestration, will be presented. Policy and social implications of these energy issues will be discussed. Prerequisites: CHEM 0330 and ENGN 0720.

ENGN 1931S. Independent Study in Engineering.
Independent Study in Engineering. Instructor permission required after submitting online proposal (http://brown.edu/academics/engineering/content/independent-study). Section numbers vary depending on concentration. Please check Banner for the correct section number and CRN to use when registering for this course.

Independent Study in Engineering. Instructor permission required after submitting online proposal (http://brown.edu/academics/engineering/content/independent-study). Section numbers vary depending on concentration. Please check Banner for the correct section number and CRN to use when registering for this course.

Interested students must register for PHYS 2020.

ENGN 2110. Business Engineering Fundamentals I.
The course examines core concepts in distinct areas through three modules: (1) intellectual property and business law, (2) technical marketing and (3) finance. All aspects of intellectual property will be treated, models on how to analyze markets will be discussed, culminating in a finance module which utilizes accounting fundamentals and models to perform financial analysis.

ENGN 2120. Business Engineering Fundamentals II.
The course examines core concepts in distinct areas through three modules: (1) organizations, leadership, and human capital, (2) implementing radical technology change, and (3) engineering ethics. Organization, leadership and human capital focuses on the attributes of effective leadership and the tactical operation of start-up companies, implementing radical technological change centers on disruptive technologies and their adaptation in the marketplace, and ethics treats the issues that arise in small start-up organizations with an emphasis on the interface of ethics and environmental, health and safety issues.

ENGN 2130. Innovation and Technology Management I.
Examines core concepts through four modules: (1) Industry Dynamics of Technological Innovation, (2) Formulating Technological Innovation Strategy, (3) Implementing Technological Innovation Strategy, and (4) Early Commercialization and Deployment. Industry Dynamics of Innovation will explore some of the drivers of technology innovation. Implementing Technological Innovation Strategy explores execution issues concerning the flow of technology and innovation from concept to physical product or service. Early Commercialization and Deployment will focus on more salient strategic and operational issues related to commercial readiness and roll-out of a technology-based product or service. Emphasis will be on technology oriented entrepreneurial enterprises, but exploration will also include larger more established organizations.

ENGN 2140. Innovation and Technology Management II.
Explores concepts relevant to the management of operations in industrial enterprises with an emphasis on technology-oriented firms. Topics fall into three basic modules: (1) Capacity Planning, (2) Industrial Engineering, and (3) Materials & Resource Engineering. Capacity Planning will focus on capacity considerations in manufacturing and service organizations. Industrial Engineering will examine optimizing plant and process layouts. Materials & Resource Engineering will cover various aspects of planning and scheduling material, labor, and work center capacity. Inventory management techniques will also be introduced and examined as will concepts such as materials requirements planning and aggregate planning.

ENGN 2150. Technology Entrepreneurship and Commercialization I.
ENGN 2150 and the spring ENGN 2160 form a sequence that develops the skills for technology-based entrepreneurship. It teaches creation of viable high-growth-potential new ventures from emerging science and technology. It is from emerging S&T that a high percentage of new jobs are created, both by existing large companies and through the formation of new companies. You will examine S&T for new opportunities, create novel product or service concepts from these sources and determine whether these concepts truly represent new business opportunities. Pedagogy is a combination of lectures and "experiential learning", with work undertaken as a two-semester project. Enrollment limited to 30 graduate students in the IMEE program.

ENGN 2160. Technology Entrepreneurship and Commercialization II.
ENGN 2160 and the prerequisite fall course 2150 form a course sequence that develops the knowledge of, and embeds the skills for, technology-based entrepreneurship. While 2150 has helped you to examine science and technology sources, and create a portfolio of opportunities from these, this course continues by developing selected opportunities into a compelling business case for the creation of a high growth potential new venture. Once again, learning is by a combination of lectures and "experiential learning", with work undertaken as a guided two-semester project. Prerequisite: ENGN 2150. Enrollment limited to 30 graduate students in the IMEE program.

ENGN 2210. Continuum Mechanics.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Simple problems in finite and linear elasticity, and in Navier-Stokes flows. Creep and relaxation in linear viscoelasticity.

Fall ENGN2210 S01 15445 MW 12:00-12:50(12) (H. Kesari)


Fall ENGN2220 S01 24766 MW 10:00-10:50(03) (D. Henann)

ENGN 2240. Linear Elasticity.

Fall ENGN2240 S01 15446 MW 11:00-11:50(04) (K. Kim)

ENGN 2320. Experimental Mechanics.
The design and evaluation of experiments in solid mechanics. Considers methods for experimental stress analysis and for the mechanical testing of materials. Topics covered include photoelasticity, creep and relaxation tests, high-speed testing, stress wave propagation, fatigue, and fracture. Techniques, instrumentation, and recording systems for the static and dynamic measurement of mechanical parameters such as forces, displacements, velocities, accelerations, and strains.

Spr ENGN2320 S01 24767 MW 9:00-9:50(02) (C. Franck)

ENGN 2380. Fracture Mechanics.

Spr ENGN2380 S01 24765 Th 4:00-6:30(17) (H. Gao)

ENGN 2410. Thermodynamics of Materials.

Fall ENGN2410 S01 16459 MW 6:00-7:20(15) (A. van de Walle)

ENGN 2430. Deformation Behavior of Materials.
Linear elasticity as applied to isotropic and anisotropic materials; yield criteria including Von Mises, Tresca, Mohr-Coulomb, and Hill. Plastic deformation and slip. Dislocation theory. Mechanisms of hardening. Microstructural models of ductile, intergranular, and cleavage fracture. Toughening mechanisms. Creep. Fatigue. Prerequisites: ENGN 0410 and ENGN 1440 or equivalent.

Fall ENGN2430 S01 15448 TTh 1:00-2:20(10) (S. Kumar)

This course covers fundamental topics in pattern recognition and machine learning. We will consider applications in computer vision, signal processing, speech recognition, and information retrieval. Topics include: decision theory, parametric and non-parametric learning, dimensionality reduction, graphical models, exact and approximate inference, 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. 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 ENGN2520 S01 15450 MW 11:00-11:50(04) (H. Silverman)

ENGN 2540. Speech Processing.
The basics for speech production and hearing are introduced. PDEs and simplified vocal-tract models are derived. LPC, DFT filterbank and time varying signal processing for speech recognition analysis are discussed in mathematical detail. Dynamic programming, vector quantization, hidden Markov modeling, and neural-network pattern recognition for speech are introduced. Offered every other year.

Spr ENGN2540 S01 24837 MW 11:00-11:50(04) (H. Silverman)

ENGN 2560. Computer Vision.
An interdisciplinary exploration of the fundamentals of engineering computer vision systems (e.g., medical imaging, satellite photo interpretation, industrial inspection, robotics, etc.). Classical machine vision paradigms in relation to perceptual theories, physiology of the visual context, and mathematical frameworks. Selections from Gestalt psychology, Gibsonian approach primate visual pathways, edge-detection, segmentation, orientation-selectivity, relaxation-labeling, shading, texture, stereo, shape, object-recognition.

Spr ENGN2560 S01 24838 Th 1:00-2:20(10) (B. Kimia)

Current and proposed semiconductor devices: bipolar transistors (silicon and heterojunction); field effect transistors (MOSFETs, heterostructure, and submicron FETs); hot-electron and quantum-effect devices; and photonic devices (LEDs, semiconductor lasers, and photodetectors). Prerequisites: ENGN 1590 or equivalent introductory device course; some quantum mechanics helpful but not required.

Spr ENGN2610 S01 24771 MW 12:00-12:50(05) (A. Zaslavsky)

ENGN 2620. Solid State Quantum and Optoelectronics.
Incorporates the study of interaction of radiation with matter emphasizing lasers, nonlinear optics, and semiconductor quantum electronics. Q-switching and mode-locking, electro- and acousto-optic interactions, harmonic generation and parametric processes, self-focusing and phase modulation, stimulated Raman and Brillouin scattering, ultrashort pulse generation, nonlinear processes of conduction electrons in semiconductors, bulk and surface polaritons. Prerequisite: ENGN 2600 or equivalent.

Fall ENGN2620 S01 15449 MW 1:00-1:50(06) (A. Nurmikko)

ENGN 2760. Heat and Mass Transfer.

Spr ENGN2760 S01 25779 MW 10:00-10:50(03) (J. Liu)

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 16172 MW 2:00-2:50(07) (M. Maxey)

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 24839 MW 12:00-12:50(02) (D. Venturi)

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,
English

ENGL 0110. Critical Reading and Writing I: The Academic Essay
An introduction to university-level writing. Students produce and revise multiple drafts of essays, practice essential skills of paragraph organization, and develop techniques of critical analysis and research.

Readings from a wide range of texts in literature, the media, and academic disciplines. Assignments move from personal response papers to formal academic essays. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL 110 S01 15278 MWF 10:00-10:50 (03) (L. Stanley)
Fall ENGL 110 S03 15283 MWF 10:00-10:50 (03) (K. Schapira)
Fall ENGL 110 S05 15284 MWF 9:00-9:50 (16) (C. Deboer-Langworthy)
Fall ENGL 110 S06 15285 MW 8:30-9:50 (16) (R. Ward)
Fall ENGL 110 S07 15286 MWF 8:30-9:50 (16) (A. Naughton)
Fall ENGL 110 S08 15287 MWF 2:00-2:50 (07) (S. Resnick)
Fall ENGL 110 S09 15286 MWF 2:00-2:50 (07) (S. Keck)
Fall ENGL 110 S10 15289 MWF 11:00-11:50 (04) (J. Beaver)
Fall ENGL 110 S11 15290 TTh 10:30-11:50 (13) (J. Readley)
Fall ENGL 110 S12 15291 MWF 12:00-12:50 (12) (J. Tan)
Fall ENGL 110 S13 15292 MWF 2:00-2:50 (07) (A. Golaski)
Fall ENGL 110 S14 15293 MWF 12:00-12:50 (12) (A. Golaski)
Spr ENGL 110 S01 24735 MWF 9:00-9:50 (02) (M. Stewart)
Spr ENGL 110 S02 24736 MWF 9:00-9:50 (02) (R. Ward)
Spr ENGL 110 S03 24737 MWF 2:00-2:50 (07) (S. Swarbrick)
Spr ENGL 110 S04 24738 MWF 12:00-12:50 (05) (A. Solomon-Greenbaum)
Spr ENGL 110 S05 26046 MWF 10:00-10:50 (03) (A. Naughton)

ENGL 0110. Critical Reading and Writing II: The Research Essay.
For the confident writer. Offers students who have mastered the fundamentals of the critical essay an opportunity to acquire the skills to write a research essay, including formulation of a research problem, use of primary evidence, and techniques of documentation. Topics are drawn from literature, history, the social sciences, the arts, and the sciences. Enrollment limited to 17. Writing sample may be required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL 110 S01 15257 MWF 11:00-11:50 (04) (E. Taylor)
Fall ENGL 110 S02 15258 MWF 12:00-12:50 (12) (R. Ward)
Spr ENGL 110 S01 24735 MWF 9:00-9:50 (02) (M. Stewart)
Spr ENGL 110 S02 24736 MWF 9:00-9:50 (02) (R. Ward)
Spr ENGL 110 S03 24737 MWF 2:00-2:50 (07) (S. Swarbrick)
Spr ENGL 110 S04 24738 MWF 12:00-12:50 (05) (A. Solomon-Greenbaum)

ENGL 0160. Journalistic Writing.
An introduction to journalistic writing that focuses on techniques of investigation, reporting, and feature writing. Uses readings, visiting journalists, and field experience to address ethical and cultural debates involving the profession of journalism. Writing assignments range from news coverage of current events to investigative feature articles. Writing sample required. Class list will be reduced to 17 after writing samples are reviewed during the first week of class. Enrollment limited to 17. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL 160 S01 15259 TTh 9:00-10:20 (09) (T. Breton)
Fall ENGL 160 S02 15260 TTh 1:00-2:20 (09) (T. Breton)
Spr ENGL 160 S01 24741 MWF 8:30-9:50 (02) (T. Mooney)

ENGL 0180. 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 ENGL 1180. Writing sample may be required. Enrollment limited. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL 180 S01 15272 TTh 9:00-10:20 (08) (L. Stanley)
Fall ENGL 180 S02 15273 MWF 10:00-10:50 (15) (S. Resnick)
Fall ENGL 180 S03 15274 MWF 12:00-12:50 (15) (S. Resnick)
Fall ENGL 180 S04 15275 MWF 9:00-9:50 (16) (M. Stewart)
Fall ENGL 180 S05 16888 MWF 2:00-2:50 (07) (A. Solomon-Greenbaum)
Spring ENGL 180 S01 24742 TTh 1:00-2:20 (10) (E. Taylor)
Spring ENGL 180 S02 24743 MWF 10:00-10:50 (03) (E. Hardy)
Spring ENGL 180 S03 24744 MWF 9:00-9:50 (02) (S. Resnick)
Spring ENGL 180 S04 24745 MWF 2:00-2:50 (07) (E. Hardy)
Spring ENGL 180 S05 24746 MWF 1:00-1:50 (06) (K. Schapira)
Spring ENGL 180 S06 24747 MWF 1:00-1:50 (06) (S. Resnick)
ENGL 0200A. All Eyes On You: Voyeurism and Surveillance Culture.
Can one both fear and delight in the knowledge of being watched? How is desire produced in voyeurism or exhibitionism? This course will explore the importance, danger and seduction of voyeuristic observation and surveillance culture through the lens of several 20th century American novels and films. Authors include Nobokov, James and Pynchon. Films include "Lolita," "Rear Window" and "Brokeback Mountain." Enrollment limited to 17.
Spr ENGL200AS01 25055 MWF 12:00-12:50(05) (J. Tan)

ENGL 0300F. Beowulf to Aphra Behn: The Earliest British Literatures.
Major texts and a few surprisies from literatures composed in Old English, Old Irish, Anglo-Norman, Middle English, and Early Modern English. We will read texts in their historical and cultural contexts. Texts include anonymously authored narratives like Beowulf and Sir Gawain and the Green Knight, selected Canterbury Tales by Chaucer, and texts by Sir Thomas Malory, Spenser, Shakespeare, and Aphra Behn. Enrollment limited to 30.
Spr ENGL300FS01 24713 F 3:00-5:30(15) (E. Bryan)

ENGL 0300J. Altered States.
A course about ecstasy, rapture, transport, travel, mysticism, metamorphosis, and magic in pre- and early modern verse, drama, and prose, including: Ovid (Metamorphoses), Shakespeare (A Midsummer Night's Dream; Othello), Marlowe (Dr. Faustus), Mandeville's Travels; the writings of the medieval female mystics Julian of Norwich and Margery Kempe; the ecstatic verse of Crashaw, and the erotic, at times pornographic, verse of Donne, Herrick, Carew, Rochester, and Behn. Enrollment limited to 30.
Spr ENGL300J S01 25056 MWF 11:00-11:50(04) (R. Rambuss)

ENGL 0310A. Shakespeare.
We will read a selection of Shakespeare's plays with attention to both formal and historical issues. Questions to be addressed may include genre, the Shakespearean text, gender, sexuality, consciousness, status and degree, politics and nation. Written work to include a mid-term and two short papers. LILE WRIT
Fall ENGL310AS01 15303 MWF 10:00-10:50(03) (S. Foley)
Spr ENGL310AS01 24657 MWF 11:00-11:50(03) (K. Newman)

ENGL 0500J. The Literature of Identity.
This course will explore various conceptions of personal identity, with an emphasis on Romanticism. We'll read Anglo-American philosophical and literary texts (mostly poetry) from the Renaissance through the 19th century, taking some excursions into contemporary theory (queer, feminist, post-structuralist). Writers may include Shakespeare, Montaigne, Locke, Hume, Rousseau, Wordsworth, Keats, Emerson, Browning, and Wilde. DPLL LILE
Fall ENGL500J S01 15168 TTh 2:30-3:50(11) (J. Khalip)

ENGL 0510T. American History and the Literary Imagination.
This course explores twentieth- and twenty-first-century literary representations of the nineteenth century. We will primarily read novels, poetry, and cultural criticism regarding the U.S.'s antebellum period with particular emphasis on colonial expansion, slavery, and the civil war. We will consider how genre impacts historical interpretation in fiction, the recasting of historical events through marginal figures, and the contested though necessary role of memory in both literary and historical discourse.
Fall ENGL510TS01 15170 TTh 9:00-10:20(08) (R. Clytus)

ENGL 0510U. Nineteenth-Century British Novel.
The novel in nineteenth-century Britain was a hugely popular cultural form, much like the serial television drama today. It was also a form of cultural expression that began to compete with the claims and consolations of some of the most influential intellectual and moral discourses of the time, including social science and religion. In this course we will read many of the most popular and accomplished novels of the era, with a view to examining artistic forms and styles in relation to both thematic concerns and social, historical, and literary contexts. Authors: Austen, Bronte, Gaskell, Eliot, Dickens, Collins, Wilde.
Fall ENGL510UTS01 14050 TTh 9:00-10:20(08) (C. Marks)

ENGL 0510W. Coupling: The Literature of Courtship.
This course examines the courtship plot in the Anglo-American literary tradition, concentrating on novels of the eighteenth and nineteenth centuries but extending forward to twentieth-century and contemporary novels, and explores how these fictions have constructed and challenged normative narratives of gender and sexuality.
Fall ENGL510WS01 16307 MWF 10:00-10:50(10) (A. Anderson)
James, Virginia Woolf, Walter Benjamin, Sigmund Freud, James Joyce, W. G. Sebald, and Julian Barnes. LILE
Fall ENGL0700C S01 15304 MW 10:00-11:20(03) (R. Reichman)

ENGL 0710E. Postcolonial Tales of Transition
This course focuses on postcolonial British, Anglo-Caribbean, and South African works that exemplify or refashion the category of the bicultural, the novel of education. Issues to be considered include the ways the texts rework archetypal tropes of initiation, development, and the interplay of contradictory passions. We will also think about ways in which issues of race, gender, and sexuality emerge in the texts, and the connections or disjunctions between literature and the world of actions, reality and individual perception. Writers include Coetzee, Ghosh, Ishiguro, Joyce, Lamming, Marechera, Naipaul, Rhyas, Schreiner.
Fall ENGL0710ES01 15172 MWF 11:00-11:50(04) (O. George)

ENGL 0710J. Introduction to Asian American Literature
This course is intended to familiarize students with key issues that have shaped the study of Asian American writings and to provide a sense of the historical conditions out of which those works have emerged. As a literature course, it will focus on textual analysis—on how particular texts give representational shape to the social, historical and psychological experiences they depict. Readings consist primarily of works that have a canonical status within Asian American literary studies but also include newer works that suggest new directions in the field. It also strives to provide some coverage of the major ethnic groups.
Spr ENGL0710J S01 24655 MW 11:00-11:50(04) (D. Kim)

ENGL 0710N. Fitzgerald, Hemingway, and the Lost Generation.
An introduction to two of the most popular and influential American novelists of the twentieth century, Scott Fitzgerald and Ernest Hemingway. We will read many of their most important novels and stories, including The Great Gatsby, Tender is the Night, In Our Time, The Sun Also Rises, and A Farewell to Arms. In addition we will examine the work of the contemporary American writers who most influenced them: Gertrude Stein, Willa Cather, Sherwood Anderson, and T. S. Eliot.
Fall ENGL0710N S01 15224 TTh 10:30-11:50(13) (S. Burrows)

ENGL 0706P. The Simple Art of Murder.
This course surveys the history of criminal enterprise in twentieth-century American culture. Drawing from a broad range of sources ("literary" novels and pulp fiction, B-movies and auteurist features), we will assess the role of crime as object of aesthetic attention and attend to the questions that can arise about the idea of the criminal when one takes it up outside of its usual home in courts. Authors: Poe, Hammett, Fitzgerald, Chandler, Wright, Petyr, Hughes, Butler. Directors: Hitchcock, Wilder, Huston, Truffaut, Pakula, Lupino. Limited to 20 first-year students. FYS
Fall ENGL0706P S01 15787 W 3:00-5:30(17) (D. Nabers)

ENGL 0706Q. Literature and the Visual Arts.
How do words and images represent? Are the processes by which literature and the visual arts render the world similar or different? Is reading a novel or a poem more like or unlike viewing a painting, a sculpture, or a film? This seminar will analyze important theoretical statements about these questions as well as selected literary and visual examples. Limited to 20 first-year students. FYS
Spr ENGL0706Q S01 25060 TTh 9:00-10:20(08) (P. Armstrong)

ENGL 0707R. The Claims of Fiction.
This course explores the interplay of tropes of strangeness, contamination, and crisis in a range of British, American, and African novels and short stories. We will ask why social misfits and outsiders somehow become such fascinating figures in fictional narratives. How do these fictions entice and equip readers to reflect on collective assumptions, values, and practices? Writers will likely include Baldwin, Brontë, Condé, Conrad, Faulkner, Greene, Ishiguro, Lessing, Morrison, Naipaul, Salih. Limited to 20 first-year students. DPLL
Spr ENGL0707R S01 25062 TTh 2:30-3:50(11) (J. Read)

ENGL 0910A. 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. These lines from William Carlos Williams begin to articulate the purpose of this course. The human species for thousands of years has found ways to intensify and order experience through the language of poetry. The ability to read this kind of language well is an enduring life skill. Designed for non-concentrators and English concentrators, the course addresses both conceptual and practical issues of understanding poetry. Readings draw on a wide range of British and American writers, including Wyatt, Shakespeare, Donne, Blake, Keats, Dickinson, Cummings, Frost, Bishop, and Heaney.
Fall ENGL0910A S01 15173 TTh 9:00-10:20(08) (M. Rabb)

ENGL 1050A. Narrative.
This course offers a broad exploration of the many kinds of essays you can write in creative nonfiction. We will be looking at how authors structure their pieces and the range of narrative techniques they often use. You can expect workshops, in-class prompts and readings by Jamaica Kincaid, John McPhee, David Foster Wallace, Annie Dillard, David Sedaris and others. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050A S01 15788 TTh 9:00-10:20(08) (E. Hardy)

ENGL 1050B. True Stories.
This class will allow confident writers to explore and develop their creative nonfiction writing. We'll focus on two structures—nonfiction narratives and essays—with occasional forays into other forms. Students will work simultaneously on several small assignments and two larger, self-directed pieces. Readings will include cultural reportage, lyric memoir, science and nature writing, standard and hybrid essays. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050B S01 15245 MWF 1:00-1:50(06) (K. Schapira)

ENGL 1050C. Creative Nonfiction: Practice and Criticism.
What is Creative Nonfiction? It has a long history and recently writers have flocked to it; scholars have questioned it: Academic enough? Harm the truth? Narrative with too much “I” and too little “Eye”? Literary? Significant? By reading historical and contemporary examples along with critics, we will explore persistent questions about form, method, ethics, and significance. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1050C S01 15247 MWF 1:00-1:50(06) (E. Taylor)

ENGL 1050D. LifeWriting.
We explore writing’s various forms—memoir, diary, essay, graphic narrative, film, and autobiography—while crafting personal narrative. Students read sample texts, view films, and keep an electronic diary. Projects include a memoir, personal critical essay, and final autobiography, as well as shorter assignments. This is a writing workshop, so students read & critique each others work. Individual conferences with the instructor also provide feedback. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050D S01 24658 MWF 2:00-2:50(07) (C. Debeer-Langworthy)

ENGL 1050E. Sportswriting.
This course introduces students to the practice of sportswriting, including writing sports news, features, and columns. Readings will include works by Rick Reilly, Bill Simmons, Frank Deford, Karen Russell, Allison Glock, Tom Wolfe, Hunter S. Thompson, W.C. Heinz, and others. Students will develop skills in analyzing, researching, writing, revising, and workingshopping in the genre. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050E S01 24659 TTh 2:30-3:50(11) (J. Readay)

ENGL 1050F. The Micro Essay.
The Micro Essay is a course that focuses on short, diverse essays that play with style and content. In the class we will focus on close sentence work and drill-based assignments, as well as aggressive readings of experimental and traditional essays. Enrollment limited to 17. Writing sample required. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1050F S01 24660 Th 4:00-6:30(17) (M. Stewart)

ENGL 1140A. The Literary Scholar.
Why does literature need critical study? And does critical study inevitably undermine the pleasures of reading? To address those questions, we will examine the histories of literary criticism (Wimsatt, Brooks, et alii), literary theory (Saussure, Foucault, Derrida, et alii), and English literature...
ENGL 1140A. The Public Intellectual.
This course offers advanced writers an opportunity to practice sophisticated, engaged critical writing in academic, personal, and civic modes. Emphasis will be on writing "public" essays (general audience essays that do intellectual work or academic essays that address public topics), ideally in fluid, "hybrid," audience-appropriate forms. Areas of investigation will include (but are not limited to) the review essay, the cultural analysis essay, literary documentary, and the extended persuasive/analytic essay. It will include some brief "touchstone" investigations into rhetorical theory, with the aim of helping to broaden our concepts of audience, analyze the constitutive and imaginative effects of language, increase the real-world effectiveness of our own language practices, and situate our writing within current political, cultural, aesthetic and intellectual debates. Students must have sophomore standing or higher in order to be admitted to the class. A writing sample will be administered on the first day of class. Prerequisite: ENGL 0130, 0160, or 0180. Class list will be reduced to 12 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1140A S01 24698 TTh 2:30-3:50(11) (L. Stanley)

ENGL 1160A. Advanced Feature Writing.
For the advanced writer. Nothing provides people with more pleasure than a "good read." This journalism seminar helps students develop the skills to spin feature stories that newspaper and magazine readers will stay with from beginning to end, both for print and on-line publications. Students will spend substantial time off-campus conducting in-depth interviews and sharpening their investigative reporting skills. The art of narrative storytelling will be emphasized. Prerequisite: ENGL0160 or published clips submitted before the first week of classes. Class list will be reduced to 17 after writing samples are reviewed. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1160A S01 24700 F 3:00-5:30(15) (C. Imbroglio)

ENGL 1160G. Literary Journalism: Writing about Culture.
Students are introduced to procedures and techniques of cultural journalism through reading and discussing work of notable practitioners and writing their own reviews, profiles, and reportage. Enrollment limited to 12. Prerequisites: ENGL0110, ENGL0130, ENGL0160, ENGL0180, or any advanced nonfiction course. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1160G S01 15789 T 4:00-6:30(16) (T. Breton)

ENGL 1180I. Writing Medical Narrative.
This class will examine the recent turn 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: ENGL 0110, 0130, 0160, 0180, 1140, 1160, 1180, or 1190. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. S/NC.
Fall ENGL1180I S01 15790 TTh 1:00-2:20(10) (K. Schapira)

ENGL 1180J. Tales of the Real World.
For the advanced writer, this section offers a chance to practice the pleasures and challenges of nonfiction story-telling in the forms of literary journalism, personal essay, and audio narrative. Inspirations include Gay Talese, James Baldwin, Joan Didion, David Foster Wallace, and This American Life. Intensive practice in researching, interviewing, revising, and audio editing. Writing sample required. Prerequisite: ENGL 0130, 0160, 0180, 1050, 1140, 1160, 1180, or 1190. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Spr ENGL1180J S01 24734 T 4:00-6:30(17) (E. Taylor)

ENGL 1180K. The Art of Literary Nonfiction.
For the advanced writer. Based on Roland Barthes’ notion of the fragment, this workshop features an incremental, literary approach to writing nonfiction, in both traditional and experimental formats. In response to daily assignments, students will produce numerous short pieces and three extended "essays," to be gathered into a chapbook at the end of the course. Writing sample required. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Not open to first year students. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1180K S01 15267 MWF 1:00-1:50(06) (C. Imbroglio)

ENGL 1180M. Special Delivery: Letters and Diaries.
For the advanced writer. While letters and diaries are constrained by "dailiness"—the writer’s informal situation in time—they often form the basis of more formal communications, including the novel. We will keep diaries as self-conscious intellectual enterprises and write letters to address their roles in various literary modes. The final project will be an epistolary essay incorporating structures and motifs from both sub-genres. Writing sample required. Prerequisite: ENGL 0130, 0160, or 0180, or instructor permission. 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 permission.
Fall ENGL1180M S01 15268 MWF 11:00-11:50(04) (C. Debever-Langworthy)

ENGL 1180P. Further Adventures in Creative Nonfiction.
For the advanced writer. A workshop course for students who have taken ENGL 0180 or the equivalent and are looking for further explorations of voice and form. Work can include personal essays, literary journalism and travel writing. Readings from Ian Frazier, Joan Didion, David Sedaris, John McPhee and others. Writing sample required. Prerequisite: ENGL 0130, 0160, or 0180, or any 1000-level nonfiction writing course. Class list will be reduced to 17 after writing samples are reviewed during the first week of classes. Preference will be given to English concentrators. Banner registrations after classes begin require instructor approval. S/NC.
Fall ENGL1180P S01 15269 TTh 2:30-3:50(11) (E. Hardy)

ENGL 1180R. Travel Writing: Personal and Cultural Narratives.
For the advanced writer. Helps students build skills in the growing genre of travel writing, including techniques for reading, observing, interviewing, composing, and revising travel pieces. Students will read the best contemporary writing about national and international travel in order to develop their own writing in areas like narrative, setting, characters, and voice. The course will feature interactive discussions, instructor conferences, and workshops. Prerequisite: ENGL 0130, 0160, 0180, or any 1000-level nonfiction writing course. Class list will be reduced to
ENGL 1190M. The Teaching and Practice of Writing: Writing Fellows Program.
For students accepted as Writing Fellows, this course offers the study of literary essays and composition theory to help develop their own writing with a critical awareness of the elements of an essay. Students will write essays throughout the semester and will confer with each other for every paper, thereby gaining experience in peer tutoring and becoming better writers through the help of an informed peer. They will also respond to the writing of a cohort of students in another designated Writing Fellows class. Enrollment is restricted to undergraduates who have been accepted into the Writing Fellows Program in the preceding July. Banner registrations after classes begin require instructor approval. S/NC.

ENGL 1190R. Literary Communities.
Students in this course will partner with literary organizations in Providence to support and create programming, research audience and outreach, and assess quality and impact; they may also design an event or program. Writing may include cultural reporting, documentation and analysis, and "tactical" writing like grant proposals and press releases, and a weekly practice of reflective writing. Pre-requisites: ENGL 0110, ENGL 0130, ENGL 0160, ENGL 0180, or ENGL 1050 or any advanced Non-Fiction course.

ENGL 1190S. Poetics of Narrative.
Narratives are everywhere, simply there, like life itself, Roland Barthes says; we structure our experiences with narratives that we either infer or create. We will read different literary genres to see how narratives work and what makes them poetic and read theoretical texts to understand narrative function and performance. We will write experimentally to experience how stories are constructed. Pre-requisites: ENGL 0110, ENGL 0130, ENGL 0160, ENGL 0180, or ENGL 1050 or any advanced Non-Fiction course.

ENGL 1200. Independent Study in Nonfiction Writing.
Tutorial instruction oriented toward some work in progress by the student. Requires submission of a written proposal to a faculty supervisor. Section numbers vary by instructor. Instructor permission required.

ENGL 1310V. Chaucer: The Canterbury Tales.
Middle English narratives by Geoffrey Chaucer’s band of fictional pilgrims, read in their 14th-century historical and literary contexts. Prior knowledge of Middle English not required. Not open to first-year students.

ENGL 1311K. Hamlet, in Theory.
An intensive study of “Hamlet”–an enduringly significant Renaissance cultural artifact, yet one of Shakespeare’s most difficult, enigmatic plays. Rather than surveying its highlights, we’ll linger over “Hamlet” scene-by-scene, even line-by-line. We’ll also engage various theoretical methodologies–psychoanalysis, Marxism, deconstruction, new historicism, feminism, queer theory–as tools for forging different readings of “Hamlet.” What questions does each approach open up (and obscure)? This is a "theory in practice" course: an introduction to theory via the close study of a single, important text. Finally, we’ll consider three “Hamlet” films. Not open to first-year students. Limited to English, Comparative Literature, Literary Arts, and MCM concentrators.

ENGL 1360H. Seminar in Old English Literature.
This course will offer a thorough introduction to the earliest period of English language and literature, and allow students, by the end of the course, to read and appreciate a language that is both intrinsically foreign and importantly familiar. We will start with an extensive coverage of grammar and syntax, before reading short texts, and Old English poetry, including excerpts from Beowulf. Enrollment limited to 20. Not open to first-year students.

ENGL 1361B. Renaissance Poetry and Visual Cultures.

ENGL 1361D. Women’s Voices in Medieval Literature.
This course explores literary works from the early medieval period, both literature by women and literature that represents women’s voices and desires. Traditions examined will include the Old and Middle English, Norse, Welsh, and Irish. The course provides insight into the construction of premodern sexualities as well as into the cultural and social histories of multiple national traditions.

ENGL 1361E. Coffeehouse Culture: Restoration and Early 18th-Century Literature.
The coffeehouse-setting served as a gathering place for people and ideas and is an enduring legacy of the late seventeenth and early eighteenth-centuries. Literature associated with it reveals fascinating contradictions: restoration of monarchy as well as the growth of democracy; sexual libertinism as well as religious toleration; freedom of the press as well as trade in slaves; veneration for classical writers as well as literary experimentation; public fascination with criminals as well as with heroes. Reading will include essays, plays, poems, satire, and narrative fiction by writers such as Rochester, Congreve, Behn, Dryden, Defoe, Swift, Pope, and Gay. Not open to first-year students.

ENGL 1380. Undergraduate Independent Study in Medieval and Early Modern Literatures.
Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor permission required.

ENGL 1511O. American Poetry I: Puritans through the Nineteenth Century.
Survey of the invention and development of American poetic traditions. Readings include Bradstreet, Taylor, Wheatley, Freneau, Bryant, Emerson, Poe, Whitman, Melville, Dickinson, and Frost.

This course charts the course of American novel from the Civil War to the present. We will attend to the development of a distinctly novelistic literary tradition in American writing over the period and to the interactions between this tradition of literary novel writing and the emergence commercial novelistic generic forms (ie. the detective novel, and science fiction). We will also consider the novel’s relations to alternative literary modes (narrative history, the sketch, the short story, the occasional essay) and to alternative media (film, television, music). Melville, Twain, DuBois, James, Fitzgerald, Hammett, Hurston, Wright, Nabokov, Butler, Morrison, Dick, Didion.

ENGL 1511Q. Melville, Conrad, and the Sea.
This class reads a number of the major works of Melville and Conrad in order to ask a number of questions crucial to understanding modern narrative: the relationship between realism and the romance (the sea being both the setting for adventure and a place of work); how, why, and by whom stories are told and passed on (the sea being both the place where ‘tall tales’ are told and where they are set); the role of the eye-witness (how do you prove you saw what no else has seen). Texts include “Moby Dick,” “Billy Budd,” “Lord Jim,” and “Heart of Darkness.”

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ENGL 1511R. Scandalous Victorians.
This course examines the literature and culture of Victorian Britain through the lens of scandal. Particular attention will be paid to questions of gender, sexuality, class and social mobility, and national and imperial identity, as well as to the dynamics of scandal and the processes of social change. Fall ENGL1511RS01 16310 MWF 9:00-9:50(16) (A. Hunt)

ENGL 1511T. Victorian Inequality.
From “Dickensian” workplaces to shady financiers, Victorian literature has provided touchstones for discussions of inequality today. This course will investigate how writers responded to the experience of inequality in Victorian Britain. Considering multiple axes of inequality, we will explore topics such as poverty and class conflict, social mobility, urbanization, gender, education, Empire, and labor. Spr ENGL1511TS01 25649 MWF 12:00-12:50(05) (A. Hunt)

ENGL 1511U. Melville, Poe, and American Modernity.
The class will be guided by the premise that the writings of Poe and Melville reflect mid-19th century modernity. To support this claim we will look into their experimentation with narrative structure and ask whether the absence of clearly delineated characters in their stories is related to the emergence of urban crowds, practices of dehumanization employed in New York and Philadelphia prisons and hospitals. Fall ENGL1511US01 25785 TTh 9:00-10:20(08) (B. Arsic)

ENGL 1560A. Jane Austen and George Eliot.
A survey of the major novels of Austen and Eliot. Readings will also include contemporary reviews and responses, letters, and Eliot’s critical prose, as well as literary theory and criticism addressing questions such as novelistic form, realism and narrativity, the problem of the subject, the politics of aesthetics, and the changing status of the woman writer in the 19th century. Enrollment limited to 20 seniors and juniors. Instructor permission required. LILE Spr ENGL1560A01 24699 M 3:00-5:30(13) (E. Rooney)

ENGL 1560W. Getting Emotional: Passionate Theories.
This course examines connections between emotion, feeling, and affect in several key texts from 18th-, 19th-, and 20th-century literatures. We will ask how and why affect becomes a central concept for writers and thinkers in the Enlightenment, and chart the ways in which affect productively opens up onto contemporary theorizations of identity, gender, sexuality, and race. Possible authors include: Wordsworth, Austen, Blake, Equiano, Coleridge, Keats, Shelley, Wilde, Pater, Kant, Melville, Hofmannsthal, Hume, Films by Todd Haynes, McQueen, Campion, Frampton. Theoretical readings by Berlant, Ellison, Terada, Deleuze, Stewart. Enrollment limited to 20 juniors and seniors. LILE Fall ENGL1560WS01 24668 W 3:00-5:30(17) (J. Khalip)

ENGL 1561G. Swift, Pope, Johnson.
The course provides in-depth study of three major writers of the eighteenth century and will include cultural contexts. Readings include Gulliver’s Travels, The Rape of the Lock, and Rasselas. Enrollment limited to 20. LILE Spr ENGL1561G01 24667 T 12:00-2:20(10) (M. Rabb)

ENGL 1561Q. Emily Dickinson.
An intensive reading of the work of Emily Dickinson in the context of her most important poetic predecessors and heirs. Other poets we will be reading will include John Donne, John Keats, Robert and Elizabeth Barrett Browning, Ralph Waldo Emerson, Wallace Stevens, Elizabeth Bishop, and Susan Howe. Students will be expected to have some familiarity with reading lyric poetry. Limited to 20 junior and senior concentrators in English, Comparative Literature, Literary Arts, French Studies, Hispanic Studies, Italian Studies. Fall ENGL1561QS01 15256 TTh 2:30-3:50(11) (S. Burrow)

ENGL 1561R. Touring the Empire: Travel Literature and the Idea of America.
Touring the Empire examines travel literature about America from the Revolutionary era up to the post-bellum period. Our primary concern will be to understand how the writings of tourists and travelers both contributed to and subverted the nineteenth century’s myth of American exceptionalism. To this end, we will consider a variety of journals and travelogues, along with literature, including former slaves, visual arts from the New York School, and journalism pertaining to the American south. Students should expect to gain an understanding of the rhetoric surrounding those uniquely American locales and institutions and the particular social formations that they enable. Spr ENGL1561RS01 24646 MWF 10:00-10:50(03) (R. Clytus)

Tutorial instruction oriented toward a literary research topic. Section numbers vary by instructor. Instructor’s permission required. Spr ENGL1580S01 15177 MWF 10:00-10:50(03) (R. Murray)

ENGL 1711A. American Poetry II: Modernism.
Study of modernist American poetry. Readings include Pound, Eliot, Stevens, Williams, H.D., Moore, Hughes, and others. Spr ENGL1711AS01 24666 TTh 2:30-3:50(11) (M. Blasing)

ENGL 1711C. The Modernist Henry James.
How does consciousness know the world? By dramatizing the processes of knowing, Henry James transformed the novel and led the way from realism to modernism. In addition to exploring his fascination with consciousness and its implications for the art of the novel, this course will ask about the moral implications of his insistence on life’s ambiguities. Spr ENGL1711CS01 24645 TTh 1:00-2:20(10) (P. Armstrong)

ENGL 1711D. Reading New York.
Explores narratives of New York City in a variety of genres, from the early 20th century to the present. Topics to be addressed include immigration, mobility, cosmopolitanism and the neighborhood, downtown, cruising, gentrification, 9/11. Work may include works by John Dos Passos, Nella Larsen, E.B. White, Jane Jacobs, Frank O’Hara, Patti Smith, Nan Goldin, Ernesto Quinones, Jonathan Safran Foer. Spr ENGL1711DS01 24644 TTh 10:30-11:50(09) (E. Katz)

ENGL 1711E. African American Literature after 1965.
This course examines major authors and currents in African American literature from 1965 through the present. We will position these writings in relation to critical literary and historical developments that include Black Power nationalism, feminism, diaspora studies, and the debates about “post-racial” America. In doing so we will also be attentive to this period as a crucial phase in the development of an African American critical tradition. Authors include Toni Morrison, Angela Davis, Amiri Baraka, Colson Whitehead, and John Wideman. DPLL Fall ENGL1711ES01 16393 TTh 2:30-3:50(11) (L. Gandhi)

ENGL 1760E. Who’s Afraid of Virginia Woolf?.
We will read novels, essays, diaries, and letters by Woolf in order to ask how and why Virginia Woolf haunts our culture and to consider her status as a cultural icon. The seminar will explore her work in the contexts of history, modernism, and literary influences, and it will examine the dimensions of Woolf’s afterlife—a posthumous dynamic that shapes issues in art, politics, and gender. Enrollment limited to 20 seniors and juniors. LILE Spr ENGL1760ES01 24665 M 3:00-5:30(13) (R. Reichman)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ENGL 1760G. American and British Poetry Since 1945.
Study of poetry after 1945. Readings include Bishop, Plath, Ashbery, Merrill, O’Hara, Heaney, Larkin, Walcott, Rich, Dove. Enrollment limited to 20. LILE
Fall ENGL1760G S01 15178 F 3:00-5:30(14) (M. Blasing)
ENGL 1760T. The Texts of Africa.
This seminar considers the various ways in which “Africa” has been depicted in fictional and non-fictional writing from the nineteenth-century on. We begin with classic travel writing by European missionaries (Park, Livingstone, Moffat), and their African and black diasporic counterparts (Crowther, Freeman, Sims, Soga). We then turn to twentieth-century literature and non-fiction (Abrahams, Conrad, Dinesen, Greene, Ndebele, Wright), closely following the rhetorical devices used to evoke the continent as geographical or subjective reality. We will pay particular attention to questions of history, linguistic representation, and the vagaries of intercultural encounter. DPLL
Fall ENGL1760T S01 15299 M 3:00-5:30(15) (O. George)
Fall ENGL1760T S01 15299 M 3:00-5:30(15) (O. George)
ENGL 1761P. Yeats, Pound, Eliot.
Readings in the poetry and selected prose of Yeats, Pound, and Eliot. Enrollment limited to 20. LILE
Spr ENGL1761P S01 24664 F 3:00-5:30(15) (M. Blasing)
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. DPLL LILE WRIT
Spr ENGL1761V S01 24642 W 3:00-5:30(14) (D. Kim)
ENGL 1762C. Image, Music, Text.
This course examines a number of novels and short stories alongside their various cinematic, theatrical, or musical adaptations in order to ask what a medium is and what distinctive formal features might define literature, cinema, theater, and music. Writers will include Melville, Conrad, Maupassant, Mann, and Cortazar; filmmakers will include Hitchcock, Antonioni, Godard, Visconti, and Coppola; critics will include Barthes, Deleuze, and Ranciere. Limited to 20 junior and senior concentrators in English, Comparative Literature, MCM, Hispanic Studies, Italian Studies, French Studies, German Studies, Literary Arts.
Spr ENGL1762C S01 24641 W 3:00-5:30(14) (S. Burrows)
ENGL 1762D. Kubrick.
A consideration of Kubrick’s feature-film oeuvre with a focus on his war films ("Paths of Glory," "Dr. Strangelove," "2001;" "Full Metal Jacket"); sports films ("Day of the Fight," his first documentary; "Killer’s Kiss"); and sex films ("Lolita;" "A Clockwork Orange;" "Eyes Wide Shut"). Limited to 20 junior and senior concentrators in English and MCM.
Fall ENGL1762D S01 15298 Th 4:00-6:30(02) (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 1900D. Literature and Politics.
Literature as a changing historical formation that often represents and is always shaped by the practices of organizing, asserting, and controlling power in society. Sustained focus on writings by Raymond Williams, Leon Trotsky, Michel Foucault, Edward Said, Gayatri Spivak, and Terry Eagleton, and on literary texts read from the perspectives of these six theorists (possibly Shakespeare, Milton, Marvell, Swift, Dickens, Gaskell, the Brontës, Victor Serge, Anna Akhmatova). Enrollment limited to 20. LILE WRIT
Spr ENGL1900D S01 24662 Th 10:30-11:50(14) (W. Keach)
ENGL 1900R. Queer Relations: Aesthetics and Sexuality.
A study of the relationship between aesthetic thought and sexuality in a variety of literary and cinematic works. We will supplement our readings with ventures into queer theory, emphasizing how art is related to identity, community, race, gender, and ethics. Authors include Wilde, Pater, James, Winterson, Cole, Guibert, Foucault, Bersani, Edelman. Films by Julien and Jarman. DPLL
Fall ENGL1900R S01 15179 Th 10:30-11:50(13) (J. Khalip)
ENGL 1901T. The Postcolonial and the Postmodern.
Explores the contexts and conceptual implications of theories of postmodemism and postcolonialism. Particular attention to intersections and disjunctions between both concepts as attempts to grapple with the challenges of modernity from the vantage point of the late-20th century. Course will end with two novels that address related issues with the tools of fictional narrative: Coetzee’s Foe and Rushdie’s Midnight’s Children. Readings include: Butler, Hall, Jameson, Laclau, Lyotard, Spivak. Not open to first-year students. Enrollment limited to 20.
Spr ENGL1901T S01 24661 M 3:00-5:30(13) (O. George)
ENGL 1901F. Art of Criticism.
This course explores the art of literary criticism through analysis of individual critics as well as larger schools of criticism. Focusing on the twenty-century, we will read works by those affiliated with high theory as well as those who stood outside that influential development. The goal will be to understand literary criticism as a form of thinking, and an art, in its own right, one with philosophical, social, and literary dimensions. Authors will include: Oscar Wilde, T. S. Eliot, Kenneth Burke, William Empson, Mary McCarthy, Lionel Trilling, Raymond Williams, Paul de Man, Eve Sedgwick, D. A. Miller, John Guillory.
Fall ENGL1901F S01 15300 Th 1:00-2:20(10) (A. Anderson)
ENGL 1950F. Law and Literature.
This seminar explores the conceptual, psychological and rhetorical connections between literature and law, examining how both disciplines shape the imagination but also aim to elicit response and responsibility. We will consider how literary works, legal writings, and legal opinions inform each other, but also illuminate each other’s blind spots. Looking beyond trial scenes, the course invites students to think about how principles and notions in law structure, and are structured by, literature and language. Authors include Walter Benjamin, Joseph Conrad, Albert Camus, Rebecca West, and Chinua Achebe; legal texts by Holmes, Bentham, Cover and a number of judicial opinions. Limited to 20 senior English concentrators.
Fall ENGL1950F S01 15301 M 3:00-5:30(15) (R. Reichman)
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/NIC
Fall ENGL1991 S01 15180 W 3:00-5:30(17) (E. Katz)
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 15270 Arranged (E. Katz)
Spr ENGL1992 S01 24639 Arranged (E. Katz)
ENGL 1993. Senior Honors Seminar in Nonfiction Writing.
This course is designed for students accepted into the Nonfiction Honors Program. It will be run in workshop format, and will focus on research skills and generative and developmental writing strategies for students embarking on their thesis projects. Weekly assignments will be directed toward helping students work through various stages in their writing processes. Students will be expected to respond thoughtfully and constructively in peer reviewing one another’s work. Open to seniors who...
have been admitted to the Honors Program in Nonfiction Writing. Instructor permission required.

Fall ENGL1993 S01 15181 Th 4:00-6:30(02) (C. Imbriglio)

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 15271 Th 4:00-6:30(17)

ENGL 2360W. Reading Things: Early Modern Material Culture.
Armor, books, china, clocks, coral, fans, feathers, fistian, gloves, handkerchiefs, lenses, miniatures, pearls, sugar, starch, tobacco are a few of the things to be found in the poetry, drama and prose of early modern England. This seminar will, in Walter Benjamin's formulation, “attempt to elucidate things through research into their properties and relations” in order to explore their histories—artisanal, colonial, ideological, pre-industrial, as they are traced in imaginative writing of the period. Texts to include works by Behn, Donne, Jonson, Sidney, and Shakespeare.

Spr ENGL2360WS01 24634 W 3:00-5:30(14) (K. Newman)

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.

Fall ENGL2450 S01 14402 Arranged ‘To Be Arranged’

ENGL 2450Y. Writing the Ruins of Empire: Romantic Cultural Property.
British literary responses to the shifting significance and value status of ancient artifacts and works of art in the period of the French Revolution and Napoleonic Wars. Ruins as “cultural property,” “cultural capital,” and “aesthetic object”—then and now. Effects of colonial expansion and imperialist rivalry on collecting, connoisseurship, the advent of public museums, the marketing of antiquities, the marketing of literature. Primary readings in Gibbon, Volney, Byron, P.B. Shelley, Mary Shelley, Anna Barbauld, Felicia Hemans, Hazlitt, Keats.

Spr ENGL2560YS01 24635 T 4:00-6:30(16) (W. Keach)

ENGL 2561H. American Literature Without Borders.
A seminar examining the “post-national” turn in American literary studies, with a special emphasis on transatlantic and hemispheric theories and methodologies. The course analyzes the place (or absence) of the aesthetic in these new critical approaches while considering historical and contemporary theories of aesthetics. Critical readings will include Brickhouse, Gilroy, Gruzes, and Levander, and Roach, among others, and such writers as Wheatley, Jefferson, Hawthorne, George Washington Cable, Marti, and Du Bois. Limited to English PhD students.

Fall ENGL2561HS01 15149 F 3:00-5:30(14) (P. Gould)

ENGL 2561J. Satire and Irony.
Satire is not so much a genre as it is a mode of discourse, like irony, that resists formal constraints and can function in almost any kind of text. Satire’s dynamic contradictions (reform and frustration; laughter and anger; topicality and generality; purposefulness and pointlessness; public and private) enliven early modern texts, and complicate the relationship between language and meaning. Theories of satire provide a framework for the study of its history and practice. Emphasis falls on the great age of satire (especially the works of Jonathan Swift and his contemporaries) but some attention will be given to earlier and later examples. Limited to graduate students. Qualified undergraduates will be permitted to register at the instructor’s discretion.

Fall ENGL2561JS01 15163 W 3:00-5:30(15) (M. Rabb)

ENGL 2561L. Nature and Law in American Literature.
This course will explore how American authors registered the transformation of natural history into the sciences of life. It will pay special attention to how new sciences of life influenced the legal and political practices that constitute our understanding of personhood. It will explore how sciences and emerging experimental medicine competed with discourses of the supernatural in deciding who has the right to live and die.

Spr ENGL2561LS01 25732 M 3:00-5:30(13) (L. Gandhi)

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, Proust.

Spr ENGL2761BS01 24636 Th 4:00-6:30(17) (E. 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 identity 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.

Fall ENGL2761CS01 15164 W 3:00-5:30(17) (R. Murray)
Fall ENGL2761CS01 15163 W 3:00-5:20(17) (R. Murray)

ENGL 2761D. The Neoliberal Imagination.
An examination of the rise and flowering of neoliberalism as an aesthetic and ideological formation. We will deploy readings from a variety of aesthetic fields (postmodern novel, conceptual art, new Hollywood, rise of punk) to chart the relations among disparate disciplinary confrontations with problem of contingent value—poststructuralism, EMH-economics, postmodernism, new historicism, third wave feminism, queer studies. Theorists to be considered: Rawls, Habermas, Irigaray, Derrida, Laclau, Lyotard, Jameson, Spivak, and Butler; authors to be considered: Mailer, Morrison, Gaddis, Dick, LeGuin, Acker, Delillo, and Ashbery. We will carefully explore the implications (theoretical, methodology, institutional) of thinking of ideological formations in aesthetic terms.

Spr ENGL2761DS01 24637 W 3:00-5:30(14) (D. Nabers)

ENGL 2780. Graduate Independent Study in Modern and Contemporary Literatures.
Section numbers vary by instructor. May be repeated for credit. Instructor’s permission required.

ENGL 2900W. Perversions: Hitchcock, Kubrick, Lynch.
A seminar on selected films by three great auteurs of the cinema of the perverse: Hitchcock (“Rear Window,” “Vertigo,” “The Birds”); Kubrick (“Dr. Strangelove,” “A Clockwork Orange,” “The Shining”); and Lynch (“Blue Velvet,” “Wild at Heart,” “Inland Empire”). Special attention to their ways with genre: detective film, thriller, horror, the sex film (on that account we’ll also consider Mitchell’s “Shortbus”), and road movie. Limited to graduate students in English, MCM, Comparative Literature, American Studies.

Spr ENGL2900WS01 24638 F 3:00-5:30(15) (R. Rambuss)

ENGL 2900X. Postcolonial Theory.
In this introduction to postcolonial theory we will consider key Western sources (Hegel, Marx, Lacan, Levi Strauss, Emmanuel Levinas); anticolonial manifestos (Gandhi, Fanon, Césaire, Memmi); political and ethical practices (civil disobedience, armed struggle, friendship). In addition to canonical critics (Said, Bhabha, Spivak), the course will review new interests in the field (transnationalism, non-western imperialisms, the environmental turn).

Spr ENGL2900XS01 25732 M 3:00-5:30(13) (L. Gandhi)

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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Emphasizes the practice of writing, including syllabus design. Priority given to students in the English Ph.D. program. Undergraduates admitted only with permission of instructor.

Fall ENGL2950 S01 15166 T 4:00-6:30(18) (J. Readey)
Fall ENGL2950 S01 15166 T 4:00-6:20(18) (J. Readey)

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

Fall ENGL2970 S01 14403 Arranged "To Be Arranged"
Spr ENGL2970 S01 23773 Arranged "To Be Arranged"

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

Fall ENGL2990 S01 14404 Arranged "To Be Arranged"
Spr ENGL2990 S01 23774 Arranged "To Be Arranged"

ENGL XLIST. Courses of Interest to Students Concentrating in English.

Fall 2014
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.

Comparative Literature
COLT 14228 Fictions of Family in the Enlightenment European Novel

Gender and Sexuality Studies
GNSS 1960W Fiction/Addiction

Judaic Studies
JUDS 0050A Believers Agnostics and Atheists in Contemporary Fiction

Religious Studies
JUDS 0830 The Bible as Literature

Political Science
POL 2355 The Politics of Precariously and Resilience

Slavic Languages
RUSS 1840 Nabokov

Spring 2015
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.

French Studies
FREN 2630A Theories of Decolonization

Modern Culture and Media
MCM 2110K Post-Reading

Center for 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. Enrolment limited to 20 first year students. Instructor permission required. FYS LILE WRIT
Fall ENVS0070C S01 15935 TTh 1:00-2:20(10) (K. Teichert)

Many important political issues hinge on matters of science or technology. But most Americans are ill-equipped to assess these matters. As a result, we are vulnerable to spin when scientific information is distorted, cherry-picked or otherwise misused to advance financial, political or even religious goals. This course examines ways these phenomena skew public discussion of climate change, vaccine safety, the teaching of evolution, cancer screening, GM food and a host of other issues. Enrolment limited to 20 first year students. FYS LILE WRIT
Fall ENVS0070DS01 15924 TTh 2:30-3:50(11) (C. Dean)

Offers a survey introduction to contemporary environmental issues and is a "gateway" class for those interested in concentrations in environmental studies/sciences. It is a required course for concentrators. We explore the relationships between human societies and the non-human environment through a survey of topical cases, including: human population growth and consumption, global climate change, toxins, waste streams, water 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. One 90-minute weekly discussion group required. WRIT
Fall ENVS0110 S01 15930 MWF 10:00-10:50(03) (M. King)

ENVS 0410. Environmental Stewardship.
Challenges students to address the economics and logistics of implementing strategies to conserve resources and reduce the negative impacts of the built environment. The goal is to learn the rationale, process and technical aspects of the practice of environmental stewardship. Topics include sustainable design, institutional change, and corporate environmental responsibility. Students collaborate in interdisciplinary teams on applied projects. Permission by instructor by application process prior to enrollment in the class.
Spr ENVS0410 S01 25235 Th 9:00-10:20(08) (K. Teichert)

Enables students to master fundamental ecological concepts and explore how this knowledge can be used to inform conservation and management. Students will develop scientific skills and experience the challenges of coastal conservation science through both case studies and field trips, including a mandatory overnight trip. Suitable for students with at least some biology background; the course is aimed at first and second year undergraduates. Expected background: BIOL 0200 or equivalent. Enrollment limited to 15; instructor permission required. WRIT
Fall ENVS0445 S01 15931 TTh 1:00-2:20(10) (M. Bertness)

This course will explore the natural history of tropical forests in Brazil, with an emphasis on its biogeochemistry (their geologic setting, soils, and plants). This biophysical background will be coupled with an exploration of land use change, the socioeconomic drivers of settlement and land clearing, and the effects of development on terrestrial, aquatic, and atmospheric systems.
There are no prerequisites, however, at least one class in ecology, geology, or environmental science is highly recommended. Since enrollment is limited to 15, and requires instructor override to register, preference will be given to those whose background is most appropriate.
Fall ENVS0485 S01 16815 M 3:00-5:30(15) (S. Porder)

Introduces students to environmental science and the challenges we face in studying human impacts on an ever-changing earth system. We will explore what is known, and not known, about how ecosystems respond to perturbations. This understanding is crucial, because natural systems provide vital services (water and air filtration, climate stabilization, food supply, erosion and flood control) that can not be easily or inexpensively replicated. Special emphasis will be placed on climate, food and water supply, population growth, and energy.
Fall ENVS0490 S01 15933 TTh 10:30-11:50(13) (S. Porder)

Introduces students to principles of international environmental law and examines how international organizations, national governments and non-state actors interact to address human impacts on the global environment. Considers effects of treaties, trade agreements and foreign and national law on resolution of trans-boundary environmental problems including climate change, marine governance, biodiversity loss and trade in endangered species and hazardous waste. Students negotiate a mock treaty (NEWORLD) to mitigate some aspect of human impact on global change from the perspective of different state and non-state actors.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ENVS 0520. Wild Literature in the Urban Landscape
Combines deep study of ecological poetry, fiction, essays and other writing with service to schools in the community through exploration of local ecological challenges through both creative and more discursive expressions. The field-work or community component to this course will involve students in conducting workshops that combine literature and ecology in order to better elucidate and understand local issues related to, for one example, eco-industrial histories associated with Gorham Silver in Providence and the current state of Mashpaug Pond on the Reservoir Triangle, where a public high school, Alvarez, now sits on contaminated soil. Enrollment limited to 22 undergraduates. S/NC.

ENVS 1350. Environmental Economics and Policy
Economic analysis of environmental issues in industrialized countries with an emphasis on the implications for designing appropriate policy measures. Topics include: the valuation of environmental goods; the basic theory of economic markets, market failure, and the sources of any failure; private and government solutions to market failures; the role of uncertainty in policy-making; and open trade environments and trans-boundary pollution, on a national and global scale. Applications to issues such as climate change, land use, air and water pollution, and alternative energy. Prerequisite: ECON 1110 or 1130.

ENVS 1355. Environmental Issues in Development Economics
Examines environmental issues in developing countries, including air and water pollution, land use change, energy use, and the extraction of natural resources. Uses microeconomic models of households and farms, linking household/firm decision-making on environmental issues to choices in labor, land, and product markets. Develops basic empirical techniques through exercises and a project. For readings, relies exclusively on recent research to illustrate the roles of econometrics and economic theory in confronting problems at the nexus of the environment, poverty, and economic development. Suggested background: ECON 1630, and ENVS 1350 or ECON 1480. Prerequisites: ECON 1110 or 1130; and ECON 1620.

ENVS 1400. Sustainable Design in the Built Environment
Provides students with an in-depth understanding of sustainability, as it relates to planning, engineering, architecture, landscape architecture and green buildings. Students conduct economic and environmental analyses to examine planning, design and building problems and opportunities holistically. Interdisciplinary teams work on applied design projects. L/L/E Fall ENVS1400 S01 15936 W 3:00-5:30(17) (K. Teichert)

ENVS 1410. Environmental Law and Policy
Introduces students to environmental law in the United States. Uses legal decisions and policy frameworks to consider the roles of non-governmental actors in formation and implementation of environmental policy. Students will become familiar with major federal environmental laws and regulatory databases and see how legal precedent, differing understandings of risk and alternative regulatory and market-enlisting strategies have shaped solutions to environmental problems. Provides opportunity to apply legal skills to local environmental legislation or legal problem. Intermediate coursework in Environmental Studies, Political Science, Community Health, Urban Studies or other environmentally-related coursework is recommended. First year students need instructor permission.

ENVS 1415. Power, Justice, and Climate Change
Climate change creates injustices in who caused the problem, who is suffering worst and first, and who is taking action. Power differences between nations and social groups drives unequal disaster risks and "compound(ed) vulnerabilities" for poor peoples and nations, and has led to gridlock in United Nations negotiations. The course reviews social and political dimensions of climate change, including local and national adaptation and mitigation efforts, media dynamics, collective and individual denial, negotiations, and the rise of climate social movements. Enrollment limited to 40. WRIT

ENVS 1455. Marine Conservation Science and Policy
Students will develop an interdisciplinary understanding of ocean ecosystems and how humans are connected to them socially, economically, and ecologically. Integration of the scientific and human dimensions of marine conservation will be achieved through analysis of the current status, trends, and threats to ocean ecosystems, and the range of solutions to mediate these threats. This course is designed for advanced juniors, seniors and graduate students; participating students are expected to have background in at least one related field (e.g., biology, geosciences, sociology, economics, or political science) beyond the intermediate level. Suggested prerequisites include ENVS 0490, BIOL 0420 or 1470.

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 1530. From Locke to Deep Ecology: Property Rights and Environmental Policy
Examines the evolution of property law and tenure in land, water, the atmosphere and natural resources, and the consequences of these property rights regimes for environmental protection. Readings drawn from the scientific, legal, public policy and popular literature are used to consider the development of American attitudes about the relationship between people and nature; the relationship between public and private rights in the land, sea, freshwater, atmosphere and wildlife; and the use of innovative property rights regimes in environmental policy. Intermediate coursework in Environmental Studies, Urban Studies, American Civilizations or other environmentally-related coursework is recommended. WRIT

ENVS 1555. Urban Agriculture: The Importance of Localized Food Systems
Urban agriculture and community gardens have a critical function in a small but increasing movement toward more localized and sustainable food economies. This class will explore research and readings from
multiple disciplines on the role of urban agriculture in world development and sustainability practices. Further, we will explore current U.S. farm policy, labor practices, and institutions impacting agricultural systems. More importantly, students will learn organic practices and be involved in planning and developing local urban agriculture projects. Enrollment limited to 40. Instructor permission required. E-mail Prof. King to request override (Dawn_King@brown.edu).

ENVS 1575. Engaged Climate Policy at the UN Climate Change Talks. Twelve undergraduate students will study a group of core readings, conduct independent and group projects, and attend the United Nations Framework Convention on Climate Change’s (UNFCCC) 20th Conference of the Parties (COP20) in Lima, Peru in December. Students will critically analyze contemporary political events; develop and addresses pertinent research questions; engage and interview with experts in the field; craft policy-relevant and empirically grounded publications and develop experience in using social media. Team-based research may be presented at the negotiations in Lima at an official side event. Instructor permission required. Contact J. Timmons Roberts for an application - j_timmons_roberts@brown.edu.

Fall ENVS1575 S01 16679 M 3:00-5:30(15) (J. Roberts)

ENVS 1920. Analysis and Resolution of Environmental Problems/Case Studies. Combines instruction about how to design research with hands-on experience conducting environmental research. Students develop their own research proposals and begin planning of a potential research project for their senior theses or capstone experience. A class research project is developed on local, state, national or global environmental issues, with the aim to serve community groups, government agencies or firms. Potential topics for class projects include urban adaptation to climate change, land use and watershed protection, and justice elements of energy and climate policy. Required for ES concentrators in Junior year. Prerequisite: ENVS 0110 or permission. Enrollment limited to Juniors and Seniors or by permission of instructor.

Fall ENVS1920 S01 15938 TTh 1:00-2:20(10) (L. Vanwey)

ENVS 1925. Energy Policy and Politics. From coal power to solar power, energy drives economies and increases quality of life world-wide. However, this same energy use can, and often does, lead to severe environmental destruction/pollution and global warming. This course serves as an introduction to energy policy in the United States and also explores global attempts to solve energy problems. This course examines different types of energy sources and uses, different ideological paths driving energy policy, the environmental impacts of energy use, current global and domestic attempts to solve energy problems, and the role of renewable and alternative forms of energy in future energy policy.

Spr ENVS1925 S01 25236 M 3:00-5:30(13) (M. King)

ENVS 1929. The Fate of the Coast: Land Use and Public Policy in an Era of Rising Seas. For the last few decades, there has been a land rush on the ocean coasts of the United States. Unfortunately, this swamps the coast at a time when sea levels are on the rise. In some places the rise is natural, in some places the rise is exacerbated by human activities and everywhere it is fueled by climate change. This course will examine the causes of sea level rise, the effects it produces on land, the steps people have taken to deal with these effects and their consequences, and possible remedies. Enrollment limited to 20. Preference given to juniors and seniors. WRIT

Spr ENVS1929 S01 25229 TTh 4:00-5:20(14) (C. Dean)

ENVS 1965. Engaged Environmental Scholarship and Communication. This upper level seminar will enable to students to place their research in the context of environmentally relevant policy and practice. Development of an environmentally-focused thesis or independent research project is a prerequisite. Students will hone practical professional skills, e.g. how to communicate scientific findings to the media and policy audiences; oral presentation skills, and tips on professional interactions. Required of all Brown Environmental Fellows (http://blogs.brown.edu/bef/), and open to others engaged in environmentally relevant projects from the natural and social sciences and humanities. Enrollment is limited to 15 seniors and graduate students, by application only (available Fall 2011). Instructor permission required. Contact Heather_Leslie@brown.edu for more information. WRIT

Spr ENVS1965 S01 25232 W 3:00-5:30(14) (H. Leslie)

ENVS 1970. Independent Study. 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.

ENVS 1971. Independent Study. 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 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.

Ethnic Studies

ETHN 0270. Introduction to Latino/a History. The Latino/a population in the United States continues to be misrepresented 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? This course will introduce key moments of racial formation for Latinos/as. Students will explore state policies, social phenomena, and social revolutions that influence the daily life of Latinos/as 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. DPLL

Fall ETHN0270 S01 15897 Th 4:00-6:20(02) (M. Martinez)

Fall ETHN0270 S01 15897 Th 4:00-6:30(02) (M. Martinez)

ETHN 0500. Introduction to American/Ethnic Studies. Considers the U.S. as a society whose unifying identity is rooted in ethnic and racial diversity. Explores the historical and contemporary experiences of racial and ethnic groups in this country and analyzes different forms of representation of those experiences, as well as representations of the racial and ethnic stratification in the U.S. imagination. Fall ETHN0500 S01 15186 MW 11:00-11:50(04) (A. Agloro)

ETHN 0710J. Introduction to Asian American Literature (ENGL 0710J). Interested students must register for ENGL 0710J. Spr ETHN0710J S01 25591 Arranged ‘To Be Arranged’

ETHN 0790A. Latino/a Literature. This course will introduce students to a broad array of Latin/a literature-fiction, poetry, drama, and graphic novels. While there is a long tradition of Latin/a literature in the United States, we will focus primarily on a period from 1970 to the present. Aimed to familiarize students with debates in the field, the readings will also include critical essays. Enrollment limited to 20. Spr ETHN0790A S02 24534 Th 10:30-11:50(09) (R. Rodriguez)

ETHN 0790D. Race and Remembering. This course will explore struggles for power over narrating history and engages current tensions in public history and national memory. Together students will consider ongoing struggles to reckon with the violent
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHN 1900B</td>
<td>Community, Language and Literacy: A Practicum</td>
<td>This course examines adult language and literacy learning and approaches to teaching in community settings. It is designed to support students' work teaching language and literacy to immigrant adults. Working with the Swearer Center and its community partners students will explore theories informing educational practice, and will gain skills and practice in providing language and literacy instruction to adult learners in the community. This practicum specifically addresses issues of language acquisition, acculturation, and broader contexts framing adult education. Enrollment limited to 20.</td>
</tr>
<tr>
<td>FREN 0100</td>
<td>Basic French</td>
<td>This is the first half of a two-semester course. Four meetings a week for oral practice. One hour of work outside of class is expected every day (grammar/writing, oral practice, reading). Enrollment limited to 18.</td>
</tr>
<tr>
<td>FREN 0200</td>
<td>Basic French</td>
<td>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 0200 after FREN 0200. Enrollment limited to 18.</td>
</tr>
<tr>
<td>FREN 0300</td>
<td>Intermediate French I</td>
<td>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 an audio CD, videos, a French film, short stories, and various other authentic documents. Prerequisite: FREN 0200 or placement (Previous experience with French is required to take this class). Four meetings per week plus a 50-minute conversation section with TAs. Instructor permission required.</td>
</tr>
<tr>
<td>FREN 0400</td>
<td>Intermediate French II</td>
<td>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.</td>
</tr>
<tr>
<td>FREN 0500</td>
<td>Writing and Speaking French I</td>
<td>A four-skill language course that stresses oral interaction in class. Thematic units will focus on songs, poems, a short novel (E-E Schmitt), two graphic novels (Saijou, Larcenet), films and a detective novel by Fred Vargas. Activities include a creative project using Comic Life, and a systematic grammar review. Prerequisite: FREN 0400, FREN 0200 with written permission, or placement.</td>
</tr>
<tr>
<td>FREN 0600</td>
<td>Writing and Speaking French II</td>
<td>Prerequisite for study in French-speaking countries. Class time is devoted mainly to conversation and discussion practice. Writing instruction and assignments focus on essays, commentaries, and to a lesser degree, on story writing. Apart from reading assignments for discussion (press articles and literary excerpts), students select two novels to read. Prerequisite: FREN 0500 or placement. Enrollment limited to 18.</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
and how - be it regarding conditions specific to our time (human/inhuman, identity, technology, the globalized world, the everyday, dystopia...) or those unceasing questions of life, time, love, predicament, that every novel must ask, even while sometimes seeming not to. Freshman seminar. Taught in English. FYS

Spr FREN0720S01 25122 MWF 12:00-12:50(05) (T. Ravindranathan)

FREN 0750G. L'animal dans la culture contemporaine.
From reports of animals stranded in conflict zones and natural calamities, to cute or clever animals cast in advertisements and popular media, from the rat of Ratatouille to the orca of De rouille et d’os, the new interest in the animal marks an age of heightened awareness of the costs, ironies, or at least increasing solitude of the human story. We will consider significant representations of the animal in contemporary French and Francophone literature, film, visual art, cultural theory and media representations. We will revisit earlier moments linking the animal to modernity, including early film/photography and urban history. Taught in French. WRIT

Fall FREN0750C01 15831 MWF 12:00-12:50(12) (T. Ravindranathan)

FREN 0760A. Introduction à l’analyse littéraire.
On what terms and with what tools can we “read” a literary text? An introduction to major periods and genres (the short story, the novel, poetry, theater) of French and Francophone literature and to a range of analytical approaches to the text, including narrative theory, poetics, psychoanalysis and gender studies.

Spr FREN0760A01 25005 TTh 10:30-11:50(09) (D. Wills)

FREN 1000B. Littérature et culture: Chevaliers, sorciers philosophes, et poètes.
From the Middle Ages to the Age of Versailles, this course examines 6 foundational moments in French civilization: the Crusades, courtly love, humanism, the witch hunts, Cartesian reason, and the emergence of the autonomous self. Close scrutiny of literary texts and films will provide a window onto French civilization before the Revolution. Readings include medieval epic, Montaigne, and Descartes. In French.

Fall FREN1000B01 15951 MWF 2:00-2:50(07) (V. Krause)

FREN 1010A. Littérature et culture: Margins of Modernity.
A survey of French and Francophone works from the 18th century to the present that reflects on a number of cultural shifts, of challenges but also resistances to hierarchies (social, sexual, political); the urban context; legacies of colonization. Various figures of marginality to be studied: vagabonds and parvenus, dandies and courtesans, outcasts and pariahs. Authors to be studied include Prévost, Marivaux, Balzac, Baudelaire, Maupassant, Duras, Camara Laye and Rachid O. Taught in French.

Spring FREN1010A01 25242 TTh 9:00-10:20(08) (P. Saint-Amand)

FREN 1030C. Modernismes poétiques.
Poetry begins with (more) white space on the page. The modernist remaking of poetry - beginning somewhere in the second half of the 19th century and lasting more or less through the first half of the 20th - brought about an exponential increase in the volume of that space, and in various other extensions of it (e.g. into design and drawing, into the unconscious). The course will follow those transformations by reading poems and other writings by selected poets from Rimbaud and Mallarmé to the surrealists and beyond, and vocabulary work. Course taught in French.

Fall FREN1030C01 15791 MWF 10:00-10:50(03) (D. Wills)

FREN 1310C. L’art de la nouvelle.
What sort of story is the short story? What kinds of possibilities and pressures distinguish it from other formats? Attentive to its contained – and constrained – narrative economy, we shall study a range of examples of the genre, from 19th century realist and fantastic literature (Maupassant, Flaubert, Nerval) to modern French and Francophone texts (Camus, Sartre, Beckett, Djebar, Condé, Ndiaye). Taught in French.

Spr FREN1310C01 25064 MWF 2:00-2:50(07) (T. Ravindranathan)

FREN 1310E. Paris, ville des Lumières.
Representations of the city; the crowd; the rise of the individual; the narrator as spectator and promeneur; narratives of social mobility; speed and circulation; sex and the city; Paris as a cultural place. Various authors to be studied: Marivaux, Fourieret de Monbronn, Rousseau, Diderot, Mercier, Restif de la Bretonne. Taught in French.

Spr FREN1310E01 26264 TTh 2:30-3:50(11) (P. Saint-Amand)

FREN 1330C. French Women Writers.
This class analyzes the relationship between gender and literary genre through the study of texts authored by women from the 19th through the 21st century. We will read novels and poetry by George Sand, Desbordes-Valmore, Colette, Beauvoir, Marguerite Duras, Monique Wittig, Annie Ernaux, among others. Screenings of work by women filmmakers will complement readings. Course taught in English. WRIT.

Fall FREN1330C01 15833 TTh 10:30-11:50(13) (G. Schutz)

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.

Spr FREN1410L01 24933 TTh 1:00-2:20(10) (V. Krause)

FREN 1410L. La favre et l’infamie: Being Marie Antoinette.
This course will examine the life of the last queen of France, Marie Antoinette, through a variety of materials: memoirs, pamphlets, and films. We will follow her from her arrival at Versailles to the fires of the Revolution, her trial and her demise. We will read some of the critical literature that has dealt with her legacy in the historiography (Hunt, Thomas, Weber), the fiction (Ch. Thomas) and art history (Mary Sheriff). Taught in French.

Fall FREN1410L01 15958 TTh 1:00-2:20(10) (P. Saint-Amand)

FREN 1410P. Paris et la province: je t’aime, un peu, beaucoup....
This course examines the relationships between Paris and the provinces of France (including Overseas Departments and Territories) from a variety of perspectives and approaches: Geography, History, Politics, Economy, Education, Languages, Arts... Readings include Pinçon + Pinçon-charlot, Duby & Mandrou, Weber, Bruno, Fanon, Favez, and Queffélec. Films and documentaries will be shown. Taught in French.

Fall FREN1410P01 15957 TTh 9:00-10:20(08) (Y. Kervennic)

FREN 1410R. Images d’une guerre sans nom: the Algerian War in Literature and Film.
Not officially acknowledged as a war by France until recently, the Algerian War of independence remains, more than a half-century later, a contested battleground in the French national consciousness. Focusing on depictions of the Algerian War in literature and film we will investigate the many taboos that still endure, most notably around the question of violence and torture, and attempt to reassess the relative “visibility” of this conflict. Readings will include films by Gillo Pontecorvo, Jean-Luc Godard, Alain Resnais, Agnès Varda, and works by Frantz Fanon, Jean-Paul Sartre, Albert Camus, Benjamin Stora, Claire Etcherelli, Assia Djebar, and Leïla Sebbar.

Spr FREN1410R01 25412 T 4:00-6:30(16) (O. Mostefaï)

FREN 1510A. Advanced Oral and Written French: Traduction.
An introduction to the theory and practice of translation, this course will be designed to expand students’ range and appreciation of written styles and registers and will be based on translation exercises and texts reflecting different types of written and oral communication. Texts will range from literary texts (excerpts from novels, plays, comic books...) to journalistic texts (articles from newspapers...). Class activities will also include comparative studies of translated texts, as well as grammar review and vocabulary work. Course taught in French. Written translations to and from French. Prerequisite: FREN 0600 or equivalent. Enrollment limited to 18. Instructor permission required.

Spr FREN1510A01 24952 MWF 10:00-10:50(03) (S. Ravillon)

FREN 1710E. War Machines: Violence and Social Forms in West Africa.
From civil war in Ivory Coast to terrorism in Mali, war and violence in Francophone Africa both provoke and respond to debates about France’s colonial legacy and continued presence on the continent. Yet these phenomena have much to tell us about emerging social relations, new forms of politics, and how ordinary Africans view the future—their own, that of their countries, and of the continent as a whole. This course studies these and related questions in a variety of media, including anthropological texts, written testimonies, novels, documentary films, philosophy, and
inventive journalism. Anglophone Africa will also be considered. Taught in English.
Fall FREN1710ES01 15794 M 3:00-5:30(15) (J. Izzo)

FREN 1900J, l’human - l’inhumain.
A broad exploration of French civilization through literature, film, and theory. Close analysis of changing notions of the human and its others (the non-human or the inhuman) from the Middle Ages through the present. Topics to be covered include humanism, human rights, and the notion of crimes against humanity. Taught in French.
Spr FREN1900J S01 25067 Th 4:00-6:30(17) (V. Krause)

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

Independent study in an area of special interest to the student, with close guidance of a member of the staff, and leading to a major paper. Required of candidates for honors, and recommended for all senior concentrators. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

FREN 2130G. Queering the Grand Siècle.
This seminar will approach canonical and non-canonical 17th-century literature through the lens of queer theory. Using strategies of queer critique while being attentive to literary/historical context, we will explore a selection of poetic, prose, and theatrical texts from perspectives that trouble the heteronormative and patriarchal norms of knowledge and power. Particular focus on the reception of the “Grand Siècle” in contemporary French cultural identity and poststructuralist thought. Theoretical readings by Butler, Edelman, Freccero, Foucault, Halberstam, Sedgwick; literary texts by François de Sales, Théophile de Viau, Benserade, Cyrano de Bergerac, Madeleine de Scudéry, Corneille, Molière, Racine, Bussy-Rabutin, Lafayette, d’Aulnoy, Choisy, among others.
Spr FREN2130G S01 24965 F 3:00-5:30(15) (L. Selfert)

FREN 2150D. Qu’est-ce que les Lumières?.
A critical examination of the authors of the French Enlightenment from the point of view of the capital ideas that will forge the century: notions of universalism and otherness, notions of politics (such as reason and violence), notions of gender and race. Examines the critical reception of the Enlightenment by contemporary theorists and historians, principally Foucault, Hunt and Damron. Readings in Graffigny, Boyer d’Argens, Diderot, Rousseau, and Sade.
Fall FREN2150D S01 15960 W 3:00-5:30(17) (P. Saint-Amand)

FREN 2190A. Animals and I.
A certain French body of thought – whose two structuring coordinates are no doubt Deleuze and Guattari’s Mille plateaux and Derrida’s L’animal que donc je suis – has framed contemporary discussions of the animal and animality in literature and critical theory. In this course we will read what constitutes the French “canon” of this still emerging field of study, examining its lines of argument and tension and its most productive sites of reading. Authors include Merleau-Ponty, Deleuze and Guattari, Derrida, Kofman, Lestel, Baratay, Bellour, Desprez, Novarina, and Bailly – from whose latest title (via Ponge) this course borrows its own. In English.
Fall FREN2190AS01 15792 F 3:00-5:30(14) (T. Ravindranathan)

FREN 2450. Exchange Scholar Program.
Fall FREN2450 S01 14407 Arranged ‘To Be Arranged’
Spr FREN2450 S01 23777 Arranged ‘To Be Arranged’

FREN 2620L. Peines (techniques) de (la) mort.
How is the question of the death penalty (to be) posed: in literature other than by means of affect, and in philosophy other than by means of morality? What if there were a “prior” question deriving from the fact that what the death penalty interrupts, and technologizes, is the naturality of the time of life and death? We will trace responses in texts from Villon to Camus, Hugo to Badinter, Kant to Derrida.
Fall FREN2620L S01 15793 M 3:00-5:30(15) (D. Wills)

FREN 2630A. Theories of Decolonization.
This seminar studies theories of postcolonial politics as these emerged from philosophies and experiences of decolonization. We will consider how contemporary thinking about politics, democracy, and modernity in Africa maintains a critical dialogue with foundational theoretical work on decolonization. Approach will be interdisciplinary, and will include major works of philosophy, anthropology, literary theory, and fiction, from both the Francophone and Anglophone traditions. We will also examine how major early theorists of decolonization and postcolonialism enjoy provocative purchase on postmillenarian critical thought within and about the Global South. Readings by Fanon, Mbembe, Jean and John Comaroff, and Ngugi wa Thiong’o. In English.
Spr FREN2630A S01 25431 M 3:00-5:30(13) (J. Izzo)

FREN 2970. Preliminary Examination Preparation.
For graduate students who have completed their course work and are preparing for a preliminary examination.
Fall FREN2970 S01 14408 Arranged ‘To Be Arranged’
Spr FREN2970 S01 23777 Arranged ‘To Be Arranged’

FREN 2980. Reading and Research.
Work with individual students in connection with special readings, problems of research, or preparation of theses. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

FREN 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall FREN2990 S01 14409 Arranged ‘To Be Arranged’
Spr FREN2990 S01 23779 Arranged ‘To Be Arranged’

FREN XLIST. Courses of Interest to French Concentrators.
Fall 2014
The following courses may be of interest to French concentrators. Please see the sponsoring department for the time and location of each course.

History
HIST 1150 The French Revolution

Gender and Sexuality Studies
GNSS 0090C. Reproductive Health: Science and Politics.
Reproductive health issues such as contraception, abortion, sexually transmitted infections and gay and lesbian health are some of the most controversial and politically charged issues in the US today. After an introduction to the interpretation of medical literature we will explore scientific, political, religious and cultural aspects of these important public policy issues. Successful national and international programs will be discussed. Although all views are welcome, it is expected that students will be respectful of other’s opinions and will incorporate the best available scientific data into their conclusions. Enrollment limited to 20 first year students. Instructor permission required. FYS DPLL WRIT
Spr GNSS0090C S01 24249 M 3:00-5:30(13) (S. Fox)

GNSS 0120. Introduction to Gender and Sexuality Studies.
Explores the interdisciplinary fields of Gender and Sexuality Studies, considering the relation between formations of gender and those of sexuality across a range of historical and disciplinary contexts. Considers how both sexuality and gender are shaped in relation to race and ethnicity, economic inequality, and the postcolonial legacy. WRIT
Spr GNSS0120 S01 24248 MWF 1:00-1:50(08) (D. Davis)

This class will examine legal debates about sexual activity and sexual speech generated by alternate, incompatible views of the source and function of laws and the role of the legal system in enforcing moral codes. We will look at works that see the law as given by God, later natural law traditions intended to enforce a common morality, and texts that see law as a human construct. Not open to first year students. WRIT
Spr GNSS1710 S01 24851 TTh 2:30-3:50(11) (P. Foa)
GNSS 1810. Independent Study and Research. Independent reading and research for upper-level students under the direction of a faculty member. Please check Banner for the correct section number and CRN to use when registering for this course.

GNSS 1820. Independent Study and Research. Independent reading and research for upper-level students under the direction of a faculty member. Please check Banner for the correct section number and CRN to use when registering for this course.

GNSS 1960D. Feminist Theory/Feminist Activism. Some complain that feminist theory is "too academic", that it has no ties to social justice or activism. On the other hand, there are those in the academy who accuse gender/women's studies of not being sufficiently academic, of not being intellectually rigorous. With those two stereotypes in mind, we will read a variety of feminist theorists, some generally thought of as "academic", and some generally seen as "activist". Can academic theory be useful to political and social activists? Can activism inform academic theorizing? Prerequisite: one theory course, one gender and sexuality studies course, or permission of instructor.

GNSS 1960W. Fiction/Addiction. In eighteenth-century Britain, the rise of global mercantile capitalism coincided with the novel's consolidation as a cultural form. Each in its own way poses questions about habit and volition: do we control what we consume, or does what we consume control us? This course explores aspects of narrative form and character representation in the early English novel with relation to the cultural history of addiction. To anchor our approach to 18th-century fiction (Defoe, Haywood, Lennox, Burney, Edgeworth), we will investigate discussions of appetite, reason, motivation, and compulsion in philosophy and critical theory (Plato, Locke, Johnson, Foucault, Derrida, Sedgwick, Gallagher).

GNSS 1960X. The Aesthetics of Color: History, Theory, Critique. This course introduces undergraduate students to the central themes and debates in the vibrant history of color from antiquity through the present. While we focus on color in modern and contemporary visual art, design, and media, we begin with the premise that color—like the feminine—has long been subordinated and marginalized as the "Other" within Western culture. We then challenge this assumption using an interdisciplinary approach rooted in feminism, art, visual studies, film theory, fashion, and education. Through descriptive writing, responses to critical texts, and subjective encounters with color in art and culture, students learn the fundamental paradoxes and properties of color.

GNSS 1960Y. Fashion and Power. Clothing is a text to be read in modernity, and authors and artists from Molière to Ru Paul mobilize sartorial performativity in powerful ways. Fashion functions, for example, as a communicative system, as a mnemonic device, as an erotic signifier, as a tool for bourgeois self-fashioning, or as a force of anti-normative subversion. In this course, students will gain familiarity with key works in the sociology of culture, and a critical vocabulary for discussing literary and cinematic style. We will pay special attention to the implications of sartorial style in the production, reproduction, and rescripting of gender norms.

GNSS 1970. Directed Research and Thesis. 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 1980. Directed Research and Thesis. 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. WRIT
Course Descriptions

**EAST 1950G** Market Economy, Popular Culture, and Mass Media in Contemporary China
**EAST 1950X** Queer Japan: Culture, History and Sexuality
**English**
- ENGL 0300J: Altered States
- ENGL 1361D: Women’s Voices in Medieval Literature
- ENGL 1560W: Getting Emotional: Passionate Theories
- ENGL 1760E: Who’s Afraid of Virginia Woolf?
- ENGL 2800W: Perversions: Hitchcock, Kubrick, Lynch
**French Studies**
- FREN 2130G: Queering the Grand Siècle

**History**
- HIST 1755: The Intimate States: The Politics of Gender, Sex, and Family in the U.S., 1873-Present
- HIST 1965: Social Change in the 1960s
- HIST 1972H: Sex Power God: A Medieval Perspective

**Humanities**
- HUMAN 1971: Queer Theories

**Judaic Studies**
- JUDS 1612: Adam and Eve in Early Jewish and Christian Interpretation

**Religious Studies**
- RELS 1210: Religion and Gender in the Ancient Mediterranean

**Theatre and Performance Studies**
- TAPS 12810: Acting Outside the Box: Race, Class, Gender and Sexuality in Performance

**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 (science concentrators should take GEOL 2220). 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.

Fall GEOL0010 S01 25347 MWF 1:00-1:50(06)

**GEOL 0030. Climate and Climate Change.**
This course is designed to provide students with an understanding of the climate system on Earth, changes in Earth’s climate over time, and interactions between climate change and human society. Topics will include: global energy balance; the structure, composition and role of the atmosphere and oceans; the influence of the global carbon cycle on climate; the social, economic and political drivers of human perturbations to the carbon cycle; and societal vulnerability, resilience and adaptive capacity in the face of environmental changes. No prerequisites; course open to all levels. Enrollment limited to 40.

Spr GEOL0030 S01 16064 TTh 1:00-2:20(10)

**GEOL 0050. Mars, Moon, and the Earth.**
Space exploration has revealed an astonishing array of surface features on the planets and their satellites. Why are atmospheres on the planets different from Earth’s atmosphere? Do other planets represent our past or future environment? Is there life on other planets? The planets and their histories are compared to gain insight and a new perspective on planet Earth.

Fall GEOL0050 S01 16048 MWF 2:00-2:50(07)

**GEOL 0070. Introduction to Oceanography.**
Examines the ocean’s role in global (and local) change, emphasizing the ocean as an evolving, dynamically balanced ecosystem. Focuses on physical/chemical/biological systems’ interconnections needed to understand the natural variability of the ocean on various time and space scales, from El Niño to global warming. Three lectures, one section meeting weekly; written exercises on oceanographic problems; two field trips to study estuarine and coastal processes.

Spr GEOL0070 S01 25345 MWF 2:00-2:50(07)

**GEOL 0160G. Energy Resources.**
Most of our energy comes directly from the Earth - predominantly as fossil fuels, but also from geothermal, wind, and hydropower sources. Developing technologies for alternative energy such as solar, nuclear, biomass and fuel cells also rely on Earth resources. The potential for these energy sources will be discussed. The science behind their utilization and environmental impact (e.g., carbon sequestration and nuclear waste disposal) will be introduced and the trade-offs in making decisions for the future will be explored. CAP course. Enrollment limited to 20 first year students. FYS WRIT

Fall GEOL0160G S01 16052 TTh 10:30-11:50(13)

**GEOL 0160L. Diamonds.**
Examines both the science and human history of diamonds, and shows how they have interacted over the years. Investigates how and where diamonds are formed in nature and what they tell us about the Earth. At the same time, explores the role diamonds have played in our history and culture. CAP course. Enrollment limited to 12 first year students. FYS WRIT

Fall GEOL0160L S01 16069 TTh 2:30-3:50(11)

**GEOL 0220. Physical Processes in Geology.**
Introduction to the form and origin of interior and surface features of Earth, with emphasis on understanding the physical processes that produced them. Topics include interior processes (plate tectonics, mountain building, volcanism, earthquakes, and flow of solid rocks) and surface processes (atmospheric and oceanic circulation, flow of rivers, glaciers, and groundwater). Laboratory and field trips arranged. Intended for science concentrators or those wishing in-depth treatment. CAP course. Enrollment limited to 100. After pre-registration, instructor permission is required to register or get on wait-list. Please see or email instructor (Jan_Tullis@brown.edu).

Fall GEOL0220 S01 16062 MWF 11:00-11:50(04)

**GEOL 0230. Geochemistry: Earth and Planetary Materials and Processes.**
Introduction to the chemical and mineralogical nature of the Earth, Moon, and meteorites, and the role of chemical processes in their evolution. Topics include: composition of rock-forming minerals; origin of crustal and mantle rocks; stable and radiogenic isotopes; models of nucleosynthesis, planet formation and differentiation. Weekly laboratory and two field trips. Intended for science concentrators. Prerequisites: basic chemistry and GEOL 0160 or 0050 or 0220, or instructor permission.

Labs will meet Tuesdays from 7:00 pm to 9:00 pm.

Spr GEOL0230 S01 25374 TTh 2:30-3:30(11)

**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. WRIT

Spr GEOL0240 S01 25354 MWF 11:00-11:50(04)

**GEOL 0250. Computational Approaches to Modelling and Quantitative Analysis in Natural Sciences: An Introduction.**
Application of numerical analysis to mathematical modelling in the natural sciences including topics such as ground water and glacier flow, earthquakes, climate models, phase equilibrium, and population dynamics. Numerical methods will include the solution of linear algebraic systems of equations, numerical integration, solution of differential equations, time series analysis, statistical data analysis tools. Development of computer programming skills in the Matlab programming environment. Suggested prerequisites: MATH 0090, 0100, PHYS 0030, 0040, or 0050, 0060.

Fall GEOL0250 S01 16057 MWF 10:00-10:50(03)

**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.
GEOL 0810. Planetary Geology. Examines the geology of solid planets. Focuses on a mission to Mars through an understanding of processes that shape planetary surfaces. Terrestrial analogs, conceptual models, and laboratory simulations are used as reality checks. Integration of these processes through time reveals the geologic evolution of the planets. Three lectures and one discussion session per week. CAP course. Prerequisite: GEOL 0010 or 0050, or 0220, or instructor permission. Spr GEOL0810 S01 25372 MWF 2:00-2:50(07) (R. Milliken)

GEOL 1110. Estuarine Oceanography. Examines physical, chemical, and biological characteristics of local estuaries using field measurements, analysis of field data, and interpretation of processes; field investigation results will be prepared as a cooperative class report. Topics include: tidal and circulation processes, salinity and freshwater fluxes, watershed pollutants, estuary flushing rates, and estuary ecosystems. Primarily for students with experience in the sciences. MATH 0090, 0100, or equivalent, recommended. Enrollment limited to 20. WRIT

Labs will be held on Fridays from 1-5pm, with fieldwork through mid-October.
Fall GEOL1110 S01 16059 MWF 1:00-1:50(06) (W. Prell)

GEOL 1130. Ocean Biogeochemical Cycles. A quantitative treatment of the cycling of biologically important elements in the world ocean. Special attention paid to the carbon system in the ocean and the role that organisms, in conjunction with ocean circulation, play in regulating the carbon dioxide content of the atmosphere through exchange with the surface ocean. For science concentrators. Offered alternate years. Prerequisite: CHEM 0330 or equivalent, or instructor permission. WRIT

Fall GEOL1130 S01 16051 MWF 2:00-2:50(07) (T. Herbert)

GEOL 1240. Stratigraphy and Sedimentation. Introduction to depositional environments and processes responsible for formation of sedimentary rocks. Major sedimentary environments in the Recent are discussed, general models are proposed, and stratigraphic sequences in older sediments are examined in the light of these models. The Phanerozoic stratigraphic record is examined from the perspective of Earth system history. Laboratory arranged. Prerequisites: GEOL 0220 or 0240, or instructor permission. GEOL 0310, 1410 are also recommended. WRIT

Fall GEOL1240 S01 16061 TTh 10:30-11:50(13) (J. Russell)

GEOL 1310. Global Water Cycle. The goal of this class is to understand the physical principles and processes of the global water cycle. Topics include the climatic importance of water, circulation of atmospheric water vapor, formation of rain and snow, availability of soil water, plant-water relations, mass balance of glaciers, and ongoing and expected changes in the water cycle. Additional goals: become familiar with the current research literature, practice clear and concise science writing, and to use simple programming in Python to plot and analyze actual data sets.

Students are expected to have taken at least one geology-related course. Programming experience recommended, but not necessary.
Spr GEOL1310 S01 25644 TTh 10:30-11:50(09) (J. Lee)

GEOL 1320. Introduction to Geographic Information Systems for Environmental Applications. Introduction to the concepts of geospatial analysis and digital mapping. The principles of spatial data structures, coordinate systems, database development and design, and techniques of spatial analysis are learned. This is an applied course, primarily using ESRI-based geographic information system software. Focal point of class is the completion of student-selected research project employing GIS methods. Enrollment limited to 10 in each section. Permission by an application provided by the instructor (to be requested through email). S/N/C.

Fall GEOL1320 S01 16049 TTh 1:00-2:20(10) (L. Carlson)
Fall GEOL1320 S02 16470 Arranged (L. Carlson)

GEOL 1330. Global Environmental Remote Sensing. Introduction to physical principles of remote sensing across electromagnetic spectrum and application to the study of Earth’s systems (oceans, atmosphere, and land). Topics: interaction of light with materials, imaging principles and interpretation, methods of data analysis. Laboratory work in digital image analysis, classification, and multi-temporal studies. One field trip to Block Island. Recommended preparation courses: MATH 0090, 0100; PHYS 0060; and background courses in natural sciences.
Spr GEOL1330 S01 25373 TTh 1:00-2:20(10) (J. Mustang)

GEOL 1350. Weather and Climate. Weather phenomena occur on short time scales, and form the basis for understanding climate, the study of changes over longer time scales. This course aims to provide an understanding of the processes that drive weather patterns, the general circulation of the atmosphere, and climate on Earth. Topics include: structure and composition of the atmosphere; sources of energy driving atmospheric processes; weather forecasting; the hydrological cycle; the forces that create severe weather; the influence of humans on the atmosphere; and factors that influence climate, climate variability and climate change. MATH 0090, 0100; PHYS 0050, or equivalent recommended. Enrollment limited to 30. WRIT
Spr GEOL1350 S01 25352 TTh 2:30-3:50(11) 'To Be Arranged'

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 16053 TTh 9:00-10:20(08) (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 16070 MWF 10:00-10:50(03) (Y. Liang)

GEOL 1420. Petrology. Introduction to the origin of igneous and metamorphic rocks. Emphasis on principles and understanding rather than facts and memorization. Principles are used to extract information concealed in the rocks about their formation, processes, sources and evolution with time. Laboratory work focuses on rock hand samples and microscopic textures. Field trips, laboratory arranged. Prerequisites: GEOL 1410, or instructor permission.
Spr GEOL1420 S01 25370 TTh 9:00-10:20(08) (A. Saal)

GEOL 1430. Physics of 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 16578 TTh 2:30-3:50(11) (J. Lee)

GEOL 1450. Structural Geology. Introduction to the geometry, kinematics and mechanics of rocks deformed by brittle fracture or faulting and ductile solid state flow, on scales from microscopic to mountain ranges. The emphasis is on using concepts to interpret the formation, strain history and rheology of deformed rocks in terms of the operative grain-scale processes, material properties and environmental conditions. Weekly 2 hour lab involving hands-on experience closely related to class topics. Two field trips. Prerequisites: GEOL 0220 or instructor permission. WRIT
Spr GEOL1450 S01 25376 TTh 10:30-11:50(09) (J. Hirth)

GEOL 1520. Ocean Circulation and Climate. Examines physical characteristics, processes, and dynamics of the global ocean to understand circulation patterns and how they relate to ocean biology, chemistry, and climate change. Assignments address ocean’s
role in the climate system; ocean observations and models; the origin, distribution, and dynamics of large-scale ocean circulation and water masses; energy and freshwater budgets; and variability of the coupled system on seasonal to centennial timescales e.g. El Niño. Intended for geological and physical sciences undergraduate and graduate students with quantitative skills and an interest in oceans, climate, paleoclimate. Pre-requisite: GEOL0350 or PHYS0720 or APMA 0340. Offered alternate years, previously offered as GEOL1100.

Fall GEOL1520 S01 102147 MWF 1:00-2:00(10) (B. Fox-Kemper)

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 16067 TTh 10:30-11:50(09) (C. Dalton)

GEOL 1650. Earthquake Seismology.
Topics include: location of earthquakes in space and time; measures of size and intensity of shaking; body waves, surface waves, and free oscillations; structure of the interior of the Earth from wave propagation; earthquake faulting and relationship to tectonic processes. Recommended course: GEOL 0161. Offered in alternate years.

Spr GEOL1650 S01 25688 TTh 10:30-11:50(09) (K. Fischer)

GEOL 1660. Instrumental Analysis with Environmental Applications.
This course covers the principles and practical applications of important analytical chemistry tools used to study environmental problems, including discussions of method selection and statistical treatment of data. Students will strategize and implement a study of a field site. Includes lab sessions with hands-on experience of instrumental analysis using atomic and molecular spectroscopic techniques, separations by gas and liquid chromatography, and electrochemical methods. Prerequisite: CHEM 0330 or GEOL 1370. Enrollment limited to 20. Instructor permission required.

Spr GEOL1660 S01 25367 TTh 10:30-11:50(09) (D. Murray)

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 16055 TTh 1:00-2:20(10) (R. Milliken)

GEOL 1820. Geophysical Fluid Dynamics.
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.

Fall GEOL1820 S01 16631 MWF 10:00-10:50(03) (A. Lynch)

One semester is required for seniors in Sc.B. and honors program. Course work includes preparation of a thesis. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Enrollment is restricted to undergraduates only.

Fall GEOL1970 S01 16056 Arranged (J. Mustard)

Strategies and the physical principles behind the quantitative extraction of geophysical and biophysical properties from remotely sensed data. Emphasis on radiative transfer theory and modeling of spectra and spectral mixtures from optical constants. Advanced methods of digital image processing. Methods of integrating remotely sensed data into a GIS framework will be introduced. Recommended preparation course: GEOL 1330 or 1710; MATH 0100; PHYS 0600.

Fall GEOL2330 S01 16056 Arranged (J. Mustard)

GEOL 2450. Exchange Scholar Program.

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

GRMN 0100. Beginning German.
A course in the language and cultures of German-speaking countries. Four hours per week plus regular computer and listening comprehension work. At the end of the year, students will be able to communicate successfully about everyday topics. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade submitted at the end of the course work in GRMN 0200 covers the entire year and is recorded as the final grade for both semesters.

Fall
GRMN0100 S01 15597 MWF 11:00-11:50(18) (J. Sokolosky)
Fall
GRMN0100 S02 15598 T 12:00-12:50(18) (J. Sokolosky)
Fall
GRMN0100 S03 15599 T 12:00-12:50(18) (J. Sokolosky)
Fall
GRMN0100 S04 16227 T 12:00-12:50(18) (J. Sokolosky)
Fall
GRMN0100 S05 16228 T 2:00-2:50(18) (J. Sokolosky)

GRMN 0110. Intensive Beginning German.
Students who wish to complete the GRMN 0100-0200 sequence in one semester may do so by enrolling in GRMN 0110 for two semester course credits. This course meets five hours per week in small drill sections conducted by fluent undergraduate teaching apprentices. Another three hours of class will be conducted by the faculty instructor. Students must register for both the lecture section and one conference.

Spr
GRMN0110 S01 25860 TTh 9:00-10:20(08) (J. Sokolosky)

GRMN 0200. German for Reading.
Intensive introduction to German grammar and syntax for students without prior knowledge of German and from all academic disciplines. Primarily for graduate students but also open to undergraduates. The student who successfully completes this course will have the necessary foundation for reading and translating German texts for students.

Spr
GRMN0120 S01 25082 W 3:00-5:30(14) (K. Mendicino)

GRMN 0300. Beginning German I.
A course in the language and cultures of German-speaking countries. Four hours per week plus regular computer and listening comprehension work. At the end of the year, students will be able to communicate successfully about everyday topics and participate in the annual film festival. This is the second half of a year-long course. Students must have taken GRMN 0100 to receive credit for this course. The final grade for this course will be the grade for GRMN 0100. If GRMN 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing.

Spr
GRMN0200 S01 25069 MWF 11:00-11:50(04) (J. Sokolosky)
Spr
GRMN0200 S02 25069 T 12:00-12:50(04) (J. Sokolosky)
Spr
GRMN0200 S03 25078 MWF 12:00-12:50(05) (J. Sokolosky)
Spr
GRMN0200 S04 25078 T 12:00-12:50(05) (J. Sokolosky)
Spr
GRMN0200 S05 25079 T 12:00-12:50(06) (J. Sokolosky)
Spr
GRMN0200 S06 25079 MWF 1:00-1:50(06) (J. Sokolosky)

GRMN 0300. Intermediate German I.
Focuses on deepening students' understanding of modern German culture by reading texts and viewing films pertinent to Germany today. Intended to provide a thorough review of German grammar and help students develop their writing, reading, listening, and speaking skills. Frequent writing assignments. Four hours per week. Recommended prerequisite: GRMN 0200.

Fall
GRMN0300 S01 15600 MWF 10:00-10:50(15) (J. Sokolosky)
Fall
GRMN0300 S02 15600 Th 12:00-12:50(15) (J. Sokolosky)
Fall
GRMN0300 S03 15601 Th 12:00-12:50(15) (J. Sokolosky)
Fall
GRMN0300 S04 15601 MWF 1:00-1:50(15) (J. Sokolosky)

GRMN 0400. Intermediate German II.
An intermediate German course that stresses improvement of the four language skills. Students read short stories and a novel; screen one film; maintain a blog in German. Topics include German art, history, and literature. Frequent writing assignments. Grammar review as needed. Four hours per week. Recommended prerequisite: GRMN 0300. WRIT

Spr
GRMN0400 S01 25080 MWF 10:00-10:50(03) (J. Sokolosky)
Spr
GRMN0400 S02 25080 Th 12:00-12:50(03) (J. Sokolosky)
Spr
GRMN0400 S02 25081 Th 12:00-12:50(06) (J. Sokolosky)
Spr
GRMN0400 S02 25081 MWF 1:00-1:50(06) (J. Sokolosky)

GRMN 0500F. Twentieth-Century German Culture.
A broad exploration of twentieth-century German culture using many kinds of written and visual texts (e.g. literature, journalism, film, art). While continuing to work on all four language skills (speaking, listening, reading, writing) students will gain more intensive knowledge about German culture, society, and history. In German. Recommended prerequisite: GRMN 0400. WRIT

Fall
GRMN0500S01 15602 MWF 9:00-9:50(16) (K. Mendicino)
Fall
GRMN0500R02 16665 MWF 1:00-1:50(06) (K. Mendicino)

GRMN 0600B. Was ist Deutch?.
In this course we will examine some of the ideas and myths that became entangled with the emerging notion of a "German" identity in the eighteenth and nineteenth centuries. Some of the terms that we will discuss include 'Kultur,' 'Bildung,' 'Freiheit' and 'Gesellschaft,' all of which have rich semantic histories. Conducted in German. Recommended prerequisite: one course in the GRMN 0500 series. WRIT

Spr
GRMN0600S01 24925 TTh 10:30-11:50(09) (T. Kniesche)

GRMN 0900C. Introduction to German Literature.
This survey course will give a historical overview of the main periods and genres of literature in German from the eighteenth to the early twentieth century. We will also consider how literature relates and contributes to the cultural, intellectual, and political history of Germany. In English. WRIT

Fall
GRMN0900S01 15828 MWF 11:00-11:50(04) (M. Powers)

GRMN 0999A. Clothes and Clothing (in Literature and Film).
A course in the language and cultures of German-speaking countries. Four hours per week plus regular computer and listening comprehension work. At the end of the year, students will be able to communicate successfully about everyday topics and participate in the annual film festival. This is the second half of a year-long course. Students must have taken GRMN 0100 to receive credit for this course. The final grade for this course will be the grade for GRMN 0100. If GRMN 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing.

Spr
GRMN0999S01 25045 MWF 9:00-10:20(08) (T. Schestag)

GRMN 1320I. What is an Image? German Aesthetics and Art from Lessing to Heidegger.
This seminar will discuss the ambiguity of greeting in Kleist's comedy Amphitryon; in a scene of Büchner's 'Dantons Tod' (with a commentary by Paul Celan); in poems by Goethe and Wilhelm Müller, Schiller, Mörike, Nietzsche, Benjamin, Adorno, and Heidegger. Emphasis will be on how aesthetics intersects with literary theory and the idea of critique, and how it contributes to discussions about knowledge, subjectivity, and power. All readings in English translation. In English.

Spr
GRMN1320I S01 25024 TTh 9:00-10:20(08) (T. Schestag)

GRMN 1320J. Welcome and Good-bye in German Literature.
Whenever we greet somebody or something, we have to presuppose – without being able to prove it – the word's capacity to greet, that is, to name and to address: the gesture of greeting oscillates between hospitality, respect and indifference towards the deictic power of language. – This seminar will discuss the ambiguity of greeting in Kleist's comedy Amphitryon; in a scene of Büchner's 'Dantons Tod' (with a commentary by Paul Celan); in poems by Goethe and Wilhelm Müller, Schiller, Mörike, Eichendorff, Keller, Hölderlin, and Brecht; as well as in a movie by Wenders on the Japanese fashion designer Yamamoto. Taught in German.

Spr
GRMN1320JS01 25045 MWF 11:00-11:50(04) (Z. Sng)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The seminar will question and discuss this renewed interest by reading Goethe’s epic fragment Achilles (1797/1808), and Kleist’s mourning play Penthesilea (1808). These readings are preceded by the discussion of fragments from Homer’s Iliad and Odysseus as well as from Plato’s Symposium. Taught in German.

**GRMN 1303B. German Romanticism: Texts, Contexts, Legacies.**

German Romanticism is associated with, among other things, self-reflection, irony, myth, genre experiments, and fantasy. In this seminar, we will examine some of the major texts of this period by F. Schlegel, Novalis, Tieck, Kleist, and Hoffmann in order to understand and question these associations. We will read these texts in the larger context of philosophical, political, and aesthetic developments around 1800, and also consider the legacy of romanticism in contemporary literary theory (de Man, Benjamin, Nancy/Lacouve-Labarthe). Taught in English.

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>15824</td>
<td></td>
<td>A. Weinstein</td>
<td>TTh</td>
<td>6:40-8:00PM</td>
<td>12</td>
</tr>
</tbody>
</table>

**GRMN 1440R. Bertolt Brecht.**

In this course, students will gain a broad familiarity with the oeuvre of Bertolt Brecht. Participants will read selections from his dramas (im Dickicht der Städte, Die Maßnahme, Leben des Galilei), as well as his dramatic adaptations (Die Antigone des Sophokles), poetry, theoretical texts (Kleines Organon für das Theater), and prose fiction. In German.

**WRIT DPLL**

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>16645</td>
<td></td>
<td>Z. Sng</td>
<td>MWF</td>
<td>10:00-10:50</td>
<td>03</td>
</tr>
</tbody>
</table>

**GRMN 1660M. Light-Writing: Literature – Photography – Philosophy.**

"I didn’t draw any people," Kafka once wrote, "I told a story. One takes photographs of things in order to forget them. My stories are a way of closing my eyes." Kafka invites us to reflect upon the relationship among literature, photography, and philosophy—from the first heliograph in 1826 to today’s digital image. We will address issues in the historical and conceptual interaction among language, image, and critical thought. Our wager: Words, photographs, and the act of thinking share a common relationship to time, finitude, loss, and mourning. Works by Kafka, Proust, Barthès, Benjamin, Kracauer, Heidegger, Derrida, and others.

**Spr**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>15824</td>
<td>Light-Writing: Literature – Photography – Philosophy</td>
<td>K. Mendicino</td>
<td>MWF</td>
<td>2:00-2:50</td>
<td>07</td>
</tr>
</tbody>
</table>

**GRMN 1900H. Soccer and Identity Formation in Post WWII Germany.**

In Germany soccer is more than a national pastime or a way to stay fit for people. Beginning in the 1950s soccer also served as a foundation for national myth-making and a source of identity formation both for individuals and for the nation as a whole. When during the 1990s, more and more professional players with a multicultural background started to represent Germany internationally, multiculturalism & soccer became intrinsically linked. We will discuss the history and culture of soccer in Germany from early 20th century to present. A field trip to Germany over spring break is planned in connection with this seminar.

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>15824</td>
<td>Soccer and Identity Formation in Post WWII Germany</td>
<td>G. Richter</td>
<td>MWF</td>
<td>3:00-5:30</td>
<td>14</td>
</tr>
</tbody>
</table>

**Spr**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>25700</td>
<td>Soccer and Identity Formation in Post WWII Germany</td>
<td>G. Richter</td>
<td>W</td>
<td>3:00-5:30</td>
<td>14</td>
</tr>
</tbody>
</table>

**GRMN 1970. Independent Study.**

Independent study on a particular topic related to German culture. In German or English. At the discretion of the instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>25004</td>
<td>Independent Study</td>
<td>T. Schestag</td>
<td>TTh</td>
<td>2:30-3:50</td>
<td>11</td>
</tr>
</tbody>
</table>

**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**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>14414</td>
<td></td>
<td>T. Schestag</td>
<td>Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
</tr>
</tbody>
</table>

**Spr**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>23784</td>
<td></td>
<td>T. Schestag</td>
<td>Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
</tr>
</tbody>
</table>

**GRMN 2660U. Goethe.**

Close readings from Goethe’s oeuvre, including poetry, drama, and prose. Text to be discussed will include Die Leiden des jungen Werthers, “Die Wahlverwandtschaften,” Götz von Berlichingen, Faust, and selected poetry. We will also consider some critical engagements with Goethe’s works (e.g. Benjamin, Ronell, Wettlin, Kittler). Some thematic concerns that will be addressed in relation to Goethe’s writings are Bildung, myth, Weltliteratur, and the Gothic. Reading knowledge of German recommended but not required.

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>15780</td>
<td></td>
<td>T. Schestag</td>
<td>Th</td>
<td>4:00-6:30</td>
<td>02</td>
</tr>
</tbody>
</table>

**Spr**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>25044</td>
<td></td>
<td>Z. Sng</td>
<td>M</td>
<td>3:00-5:30</td>
<td>13</td>
</tr>
</tbody>
</table>

**GRMN 2660V. Lessing – Legenden / Lessing – Legends.**

In a self-portrait Lessing describes himself as neither actor nor poet but as a cripple [Lahmer] to whom critique is like a crutch that allows him (as a reader and writer) to move from text to text. But critique in Lessing’s self-portrait is just another name for philology, the Greek word philologia pointing towards language in the name of the friend—philos. Friends and friendship resurface in unexpected ways throughout the body of Lessing’s work. The seminar’s first part is dedicated to 7 texts by Lessing; the seminar’s second part is going to discuss 7 texts on Lessing. In English; texts in German.

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>16161</td>
<td></td>
<td>G. Richter</td>
<td>F</td>
<td>3:00-5:30</td>
<td>14</td>
</tr>
</tbody>
</table>

**Spr**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>16161</td>
<td></td>
<td>G. Richter</td>
<td>F</td>
<td>3:00-5:30</td>
<td>14</td>
</tr>
</tbody>
</table>

**GRMN 2660W. Reading Adorno’s Aesthetic Theory.**

Theodor W. Adorno’s Aesthetic Theory stands as one of modernity’s great reflections on the relationship among art, truth, and the political. Unfinished at the time of his death in 1969, Adorno’s opus magnum argues that “only what does not fit into the world is true.” In constant critical engagement with writers and thinkers such as Kant and Hegel, Baudelaire, Benjamin, and Beckett, Adorno sees the true artwork as a scar. Through close and careful readings, our seminar investigates how Adorno’s concept of the artwork (literary, musical, painterly, photographic, sculptural, etc.) assumes its own singular dignity, insight, and pleasure. [In English.]

**Fall**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>14415</td>
<td></td>
<td>G. Richter</td>
<td>Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
</tr>
</tbody>
</table>

**Spr**

<table>
<thead>
<tr>
<th>CRN</th>
<th>Title</th>
<th>Instructor</th>
<th>Days</th>
<th>Time</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>23785</td>
<td></td>
<td>G. Richter</td>
<td>Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
</tr>
</tbody>
</table>
Incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

### HISP 0110. Intensive Basic Spanish.
A highly-intensive, two-semester sequence in one semester that carries 10 contact hours per week. Primarily for students with knowledge of Spanish, who have scored below 450 in SATII or below 340 in Brown Placement Exam. Students with little or no preparation in Spanish should consult with the Course Supervisor. Focused on acquisition of communicative skills (speaking, listening comprehension, reading and writing), and development of cultural awareness. With successful completion of the course students will be able to understand simple texts, carry on short spontaneous conversations involving everyday topics (such as modern daily life, health, art and culture, nature and the environment, and relationships) and write simple texts with good command of grammar and sentence structure. Ideal for students interested in fast-tracking their language learning to meet study abroad requirements. Double credit. Instructor permission required. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

### 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 daily 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 work with readings, including literary texts; songs; film; and the visual arts. Prerequisite: HISP 0300 or placement: SAT II scores between 411 and 490. Students with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

### HISP 0300. Intermediate Spanish I.
This course continues to develop and strengthen students' proficiency in the Spanish language, as well as to help them increase their cultural understanding. It seeks to develop both fluency and accuracy and to teach students to express, interpret, and negotiate meaning in context. Through the exploration of themes such as the individual and the community, health issues, traveling, multiculturalism and human rights, students focus on communication and learn to appreciate cultural differences. Pre-requisite: either HISP 0200, HISP 0110, or placement: SAT II scores between 460 and 510, or Brown Placement Exam scores between 341 and 410. Students with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

### HISP 0400. Intermediate Spanish II.
This course offers an exploration of the Spanish language and Hispanic cultures through a variety of thematic foci: the world of work, the arts, globalization and technology, leisure, and celebrations. It focuses on vocabulary building, the examination of some of the more difficult points of grammar, and moving students towards a more sophisticated level of comprehension and expression. Students work with readings, including literary texts; songs; film; and the visual arts. Prerequisite: HISP 0300 or placement: SAT II scores between 520 and 590 or Brown Placement Exam scores between 411 and 490. Students with an AP score of 3 or below must take the Brown Placement Exam. Students should check Placement and Course Description in the Undergraduate Program section of the Hispanic Studies Website. Enrollment limited to 18; 15 spaces are available for students during pre-registration. 3 spaces will be available at the start of the semester for incoming or re-admitted students who should attend the first class. Pre-enrolled students must attend the first four days of class to maintain their pre-registered status and notify the instructor in advance if they must miss any day before the 4th class when the composition of the course section is finalized. If course is full, students should sign the wait list available in Rochambeau House, 84 Prospect St., Room 117 during the pre-registration period.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
In this course, you will learn about la cocina española in all its dimensions and at the same time develop your linguistic skills in written and oral Spanish. Topics include: the Mediterranean diet (and its threat from fast food), the culture of tapas, the wine regions of Spain, Spain’s new star chefs, the olive oil industry, Spanish food products abroad. We will explore these topics through documentaries, recipes, interviews, films, music, short stories, and hands-on cooking.

Fall
Spr

**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 context. 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.

Spr

**HISP 0720. Early and Contemporary Writers of Spanish America.**

An introduction to major authors, movements, and themes of Spanish American literature from the Discovery to the present. This course also aims to develop students’ oral and written expression in Spanish. Students are expected to engage in close reading and discussion of texts, as well as to revise their papers. Prerequisite: HISP 0600, or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above.

Fall
Spr

**HISP 0740. Intensive Survey of Spanish Literature.**

An introduction to the major authors and literary movements of Spanish literature from the Middle Ages to contemporary times. Focuses on building critical vocabulary. Also aims to develop students’ written and oral expression in Spanish. Preparatory course for 1000-level courses for students who achieve the highest placement in Spanish. Prerequisite: HISP 0600, or AP score =5, or SAT II (Literature) score of 750 or above, or Brown placement score of 651 or above.

Fall
Spr

**HISP 0750B. Hispanics in the United States.**

Designed to bridge academic learning about Hispanic/Latino culture and volunteer work in agencies serving Hispanics in Providence. Readings, films, and guest presentations focus on issues of concern to these groups. Spanish language learning occurs in the classroom and the community, where students have the opportunity to enrich and test course content. Prerequisite: HISP 0600 or placement: SAT II scores of over 750, 5 in AP Literature or 651 and over in the Brown Placement Exam. Instructor permission required.

Spr

**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.

Spr

**HISP 0710A. Cultura gastronómica de España.**

Spain has a rich and varied culinary culture — both steeped in its multicultural history and at the cutting edge of new culinary movements.
HISP 1290V. All About Almodóvar: An Introduction to Spain's Contemporary Auteur.
This course will introduce students to the work of Spanish director Pedro Almodóvar, arguably the most important filmmaker of the last decades in Spain. Starting with his early underground works from the movida madrileña and ending with his globalized super-productions, we will follow the trajectory of Almodóvar’s filmmaking career, examining recurring themes and issues of cultural, gender, sexual, and artistic identity. No background in film studies is necessary. WRIT
Fall HISP1290V S01 15971 TTh 10:30-11:50(13) (S. Thomas)

HISP 1370K. Literatura latinoamericana del siglo XXI.
Estudiaremos las tendencias innovadoras de la narrativa latinoamericana reciente. Veremos la literatura como un trabajo sobre la resignificación de lo nuevo. Nuevas voces, nuevos textos y géneros, y nuevas ideas proponen una visión del futuro que buscaremos documentar. Los libros y textos que leeremos son un mapa del futuro. Algunos temas: el sicodrama familiar, violencia y crisis del proyecto moderno, la saga de la migración, la conciencia transatlántica, el mundo emotivo y los afectos, la ética de la solidaridad.
Fall HISP1370K S01 15959 Th 4:00-6:30(02) (J. Ortiz Castillo)

HISP 1370V. Mujeres Malas.
This seminar will analyze the notion of “bad women” in Pre-modern and Latin American Literature and visual texts. Perception, representation, and stereotyping of these women, both historical and fictional, as Mad, Witch, Femme fatale, Hysterical, and Crazy, will allow us to follow the ideological narrative that produced these characters. Some of them are based on medical, primitive, political, and even psychoanalytic conceptions. We will discuss the primitive Castilian epic cycle, Celestina, Carmen, the novel and the opera; Malinche, Cortež Infant to the conquest of Mexico; and novels and short stories from contemporary authors as well as Luis Buñuel’s films. Prerequisite: HISP 0730 or 0740.
Fall HISP1370V S01 25150 TTh 10:30-11:50(09) (J. Ortega)

HISP 1370W. La Cultura Política de la Transición y DDHH en el mundo Hispánico.
This course will discuss literary representations of “transitions” as the social and cultural mechanisms by which a country or region (Spain, Argentina, Chile, Peru, Cuba) moves from tradition to modernity, from the rural to urban, and from authoritarian regimes to democracy. We will also analyze the role of borders, social spaces, political negotiation, mapping and networks in the sagas of migration. Prerequisite: HISP 0730 or 0740. 
Spr HISP1370W S01 25432 W 3:00-5:30(14) (J. Ortega)

HISP 1370Y. Literature and Film of the Cuban Revolution.
Cuba’s revolution of 1959 gained extraordinary visibility internationally, motivating now-familiar 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. This course traces the relationship between fiction and film, and between art and the revolutionary project, from 1959 to the present day. Framed by adaptations of, and sequels to, Edmundo Desnoes’s Memories of Underdevelopment (1965), it considers textual and filmic representations of race, class, exile, the city and the role of the artist in post-1959 Cuba.
Spr HISP1370Y S01 25265 MWF 11:00-11:50(04) (E. Whitfield)

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 translation (Spanish to English), working on a variety of literary texts. At the same time, students will 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. Pre-requisite: HISP 0600 or the equivalent.
Fall HISP1500L S01 16409 F 3:00-5:30(14) (S. Thomas)
Fall HISP1500L S01 16409 F 3:00-5:20(14) (S. Thomas)

HISP 1700A. Creative Writing for the New Digital Media.
This class is a workshop in creating literary and non-literary texts in Spanish for online publication. Drawing from theoretical reflections on the new media as well as examples of its use, we will explore the creative possibilities of multiple genres of digital communication—from short stories and poems to copywriting, news articles, and tweets. Our main objective is to strengthen students’ skills as individual and collaborative authors through exercises in literary production and techniques, strategies, and habits of good writing. Both experienced writers and aspiring novices are welcome. Taught in Spanish. WRIT
Fall HISP1700A S01 25762 M 3:00-5:30(13) (J. Ortiz Castillo)

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

HISP 2160G. Don Quijote: Contexts and Constructions.
This seminar offers an in-depth study of El ingenioso hidalgo Don Quijote de la Mancha in its “own right” and through an exploration of its afterlives (editions, translations, interpretations, imitations). On the one hand, we will examine the novel in its narrative complexity and engagement with early modern Spanish literature and history. On the other, we will trace its modern critical reception, with particular focus on its paradoxical canonization both as a “universal” masterpiece and a cornerstone of Spanish and the Hispanic world.
Fall HISP2160G S01 16408 Th 3:00-5:20(02) (L. Bass)

HISP 2250M. The Novel and Empire.
This course examines representations of Spanish imperialism in Africa, Asia and Latin America in nineteenth-century Spanish literature. Over the course of the semester, we will closely study the novels of Emilia Pardo Bazán, Benito Pérez Galdós, and Juan Valera in addition to other lesser-known authors of the period such as José Rizal. We will engage postcolonial thought to bring new critical discussions to these canonical figures. At the same time, we will examine the critical limits of postcolonial theory, as it is primarily rooted in a European literary tradition that typically excludes Spain.
Spr HISP2250M S01 25257 Th 4:00-6:30(17) (J. Chang)

HISP 2350R. A Century of Experiment.
This seminar will focus on key moments of expression in Hispanic literature and visual arts over the past century. Beginning with the historical avant-gardes of the 1910s and 20s, we will move through mid-century innovations in prose and poetry, delving into neo-avant-garde crossings of politics and aesthetics in text, sound, film, and performance in the 1970s, arriving at recent literary engagements with theory, visual art, and popular culture. Readings will be drawn from various parts of Latin America, with detours into parallel contemporary practices elsewhere, and accompanied by key texts in cultural theory from the Americas and Europe.
Fall HISP2350R S01 16945 M 3:00-5:30(13) (M. Clayton)

HISP 2450. Exchange Scholar Program.

HISP 2520L. Latin American Existential Literature.
European existentialism had a strong impact on Latin American literature, though that impact remains under-explored. The course begins with European existentialism and Latin American identity politics. It then explores the particular constructions of European existentialism effected by Argentine, Uruguayan, Mexican, and Brazilian writers of prose fiction in the mid-twentieth century. Readings in Spanish and English. Instructor override needed for registration.
Spr HISP2520L S01 25154 F 3:00-5:30(15) (S. Merrin)

HISP 2620O. Authorship and Authoritarianism in Spain and Latin America.
This course examines responses to authoritarianism in Spain and Latin America in fiction, the essay, and film. Throughout, we will examine the complex relationship between authority, authoritarianism, and authorship in the twentieth and twenty-first centuries. Works to be explored may include (but are not limited to) those by: Miguel Ángel Asturias, Roberto Bolaño, Damiela Elitti, Victor Erice, Gabriel García Márquez, Juan Goytisolo, Martín Kohan, Juan Marsé, Elena Poniatowska, Manuel Puig, Carlos Saura, Marta Traba, and others.
Spr HISP2620O S01 25719 M 3:00-5:30(13) (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 HISP2970 S01 14421 Arranged 'To Be Arranged'
Spr HISP2970 S01 23790 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 tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall HISP2990 S01 14422 Arranged 'To Be Arranged'
Spr HISP2990 S01 23791 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. E Fall HIST0150A S01 14854 MWF 11:00-11:50(04) (S. Rockman)

As a set of ideas and practices, alchemy has a long, rich history in China, Roman Egypt, the Middle East, Europe, and the U.S.. From late antiquity to the present, alchemists have transformed matter in order to understand nature, make things (including elixirs and gold), and explore connections between the natural and the supernatural. The history of alchemy offers a point of entry into science, magic, medicine, gender, religion, and cultural images of the sage, fool, and fraud. HIST 0150 courses introduce students to methods of historical analysis, interpretation, and argument. This class presumes no previous history courses. E Spr HIST0150B S01 25460 MWF 1:00-1:50(06) (T. Nummedal)

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. HIST 150 courses introduce students to methods of historical analysis, interpretation, and argument. This class presumes no previous history courses. E Fall HIST0150C S01 16300 Th 1:00-2:20(10) (A. Remensnyder)
Fall HIST0150C S01 16300 TTh 1:00-2:20(10) (A. Remensnyder)

HIST 0150D. Refugees: A Twentieth-Century History.
Refugees are arguably the most important social, political and legal category of the twentieth century. This introductory lecture course locates the emergence of the figure of the refugee in histories of border-making, nation-state formation and political conflicts across the twentieth century to understand how displacement and humanitarianism came to be organized as international responses to forms of exclusion, war, disaster and inequality. M Spr HIST0150D S01 25636 MWF 12:00-12:50(05) (V. Zamindar)

HIST 0410. Histories of East Asia: China.
China’s ascendance as a global economic power in recent decades has been regarded by many as a reclaiming of its former glory. In introducing the history of China from earliest times to the present, this course aims to provide an understanding of the making and remaking over millennia of what we call Chinese civilization, with its changes, contingencies, and continuities, its various claims to greatness, and its many recurring challenges. This course is open to all students and assumes no prior knowledge of Chinese culture, history, or language. Readings consist of both a textbook and relevant primary sources. E Spr HIST0410 S01 24184 MWF 9:00-9:50(02) (C. Brokaw)

HIST 0520. 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. M Spr HIST0520 S01 24187 Thh 9:00-10:20(08) (H. Chudacoff)

HIST 0930L. Israel’s Wars (JUDS 0050H).
Interested students must register for JUDS 0050H.
Fall HIST0930L S01 16703 Arranged 'To Be Arranged'
Spr HIST0930L S01 25722 Arranged 'To Be Arranged'

HIST 0940A. History of Intercollegiate Athletics (EDUC 0850).
Interested students must register for EDUC 0850.
Fall HIST0940A S01 25593 Arranged 'To Be Arranged'

HIST 0940B. The Campus on Fire: American Colleges and Universities in the 1960’s (EDUC 0400).
Interested students must register for EDUC 0400.
Fall HIST0940B S01 16276 Arranged 'To Be Arranged'

Interested students must register for EDUC 0610.
Fall HIST0940F S01 16275 Arranged 'To Be Arranged'

HIST 0940L. Social Welfare in the Ancient Greek City (CLAS 0310).
Interested students must register for CLAS 0310.
Spr HIST0940L S01 25822 Arranged 'To Be Arranged'

HIST 0970B. Tropical Delights: Imagining Brazil in History and Culture.
Examines the many ways that Brazilians and foreigners have understood this vast continent-size country, ranging from early European explorers’ anxieties about Cannibalism to modern images of the Amazonian rainforest, Rio De Janeiro’s freewheeling Carnival celebrations, and the array of social movements mobilizing for social justice. Through an examination of historical sources, literature, movies, and popular culture, this seminar will consider how multiple images and projections of Brazil have shaped national and international notions about the country. Reserved for First Year students. Enrollment limited to 20. FYS WRIT E Fall HIST0970B S01 14878 Th 4:00-5:30(02) (J. Green)

HIST 0970O. Abraham Lincoln: Historical and Cultural Perspectives.
This seminar uses the life, legacy, and myth of Abraham Lincoln to explore central themes such as the frontier in the early republic, the nature of political leadership, law and legal culture, and the emergence of sectionalism, slavery, anti-slavery, and Civil War. Sources are drawn from Lincoln’s works, the writings of his contemporaries, and modern non-fiction, fiction, and film. The course enables us to consider two larger themes: 1) the relationship between memory and history; and 2) the function of history in modern society. The course has no prerequisites and does not presuppose special knowledge of American history. M FYS Fall HIST0970O S01 15834 W 3:00-5:30(17) (M. Vorenberg)

HIST 0970R. The Holocaust in Historical Perspective.
The course will examine the history and historiography of the Holocaust from early accounts to recent reconstructions of the origins.
implementation, and aftermath of the "Final Solution." We will also analyze documents, testimonies, memoirs, trial records, and various forms of representations and commemorations of the Shoah. Enrollment limited to 20 first year students. FYS WRIT P
Fall HIST0970R S01 14978 T 6:00-8:20PM(05) (O. Bartov)

HIST 0970S. Sport in American History.
This course covers the relationship of sports to aspects of American culture since 1900. Topics include gender, race, amateurism, professionalism, intercollegiate athletics, and sports heroes. Enrollment limited to 20 first year students. FYS M
Fall HIST0970S S01 14863 M 3:00-5:30(13) (H. Chudacoff)

HIST 0971G. The Age of Revolutions, 1760-1824.
In the middle of the eighteenth century, the Americas belonged to a handful of European monarchies; within a few decades, most of the Americas was composed of independent republics, 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 reforms, accelerating violence and, forging of new political communities. We will examine revolutions that helped create the world we live in. Enrollment limited to 20 first year students. E FYS WRIT T
Fall HIST0971G S01 14871 T 4:00-6:30(18) (J. Mumford)

HIST 0971I. Science and Society in Darwin's England.
This course is a first year seminar designed to introduce students to the study of history. It will be divided into two very different parts. The first part will be organized as a traditional history seminar in which we explore together the world in which Darwin developed his theory of the Origin of Species. The second part will be a historical re-enactment of an 1863 discussion in Britain's Royal Society about whether to award Darwin their highest honor, the Copley Medal. Enrollment limited to 20 first year students. FYS WRIT P
Fall HIST0971I S01 15516 TTh 1:00-2:20(10) (J. Richards)

HIST 0971J. Athens, Jerusalem, and Baghdad: Three Civilizations, One Tradition.
This FYS examines the core beliefs of early Greek, Jewish, Christian, and Islamic civilizations that form the basis of Western thought. Serving a similar ideological purpose in the pre-modern world as have political and economic theories for the modern world, religion and philosophy defined individual lives and collective identities. We focus on the manner of appropriation and modification of thought from one culture to another in order to appreciate that there is far more similarity than difference in belief systems among what are today viewed as separate, even contesting cultures. Enrollment limited to 20 first year students. Instructor permission required. FYS WRIT P
Spr HIST0971J S01 25138 M 3:00-5:30(13) (K. Sacks)

HIST 0971L. Modern Caribbean History.
This course will cover the political, social, and cultural history of the Caribbean from 1492 to the present. Topics include invasions from the outside world across time; the historical evolution of oppositional and radical currents within the Caribbean, such as anti-imperialism, transnationalism, Marxism, and Pan-Africanism; and the rich cultural legacies of historical processes. Cuba, Jamaica, and Haiti as case studies. FYS M
Fall HIST0971L S01 16638 W 3:00-5:30(17) (J. Lambe)

This course examines the rise of abolitionism and colonialism in the Atlantic world in the eighteenth and nineteenth centuries. We will begin by analyzing the intellectual, political, and economic foundations of the movement for the abolition of the transatlantic slave trade, assessing its spread and impact to the Americas and Africa. The class devotes significant attention to the suppression of the slave trade in the Lusophone Atlantic world (Angola, Mozambique, and Portugal). Enrollment limited to 20 first year students. FYS WRIT P
Fall HIST0971M S01 15510 W 10:00-12:20(03) (R. Ferreira)

HIST 0971N. Warriors, Lovers, and Saints: The Middle Eastern Story-Cycle in Historical Context.
Explore the Islamic Middle East and its cultures through "epic" story-cycles taken from Arabic, Persian and Turkish. Examine medieval stories in historical context, discussing the nature of rule, the organization of society, the layering of Islam onto earlier religious beliefs and practices, and the persistence of their social values in contemporary society. Topics include: warrior ethos, the gendering of power and relationships, masculine and feminine ideals, the sufi (mystical) path and its effects on society, the nature of love and justice, and the ways in which animals are perceived as crucial social actors and activists. P FYS WRIT P
Fall HIST0971N S01 14873 T 4:00-6:30(18) (P. Brunmett)

HIST 0971P. Disease, Death, and Society in the Modern History of the Americas.
This seminar explores how disease has shaped the modern history of the Americas. From the epidemics of nineteenth-century New York and Buenos Aires that fed nativist anti-immigrant sentiment, to the imperial politics of yellow fever control under U.S.-occupied Cuba, to state responses to the HIV/AIDS pandemic in Haiti and the U.S., disease has played a powerful role in shaping the history of our hemisphere. Together, we will explore ways of thinking about disease and public health as topics of historical inquiry, and examine how health policies have been shaped by processes of imperialism, sexuality, and racial and ethnic politics. FYS WRIT M
Fall HIST0971P S01 16702 M 3:00-5:30(15) (D. Rodriguez)

HIST 0980C. Culture Wars in American Schools.
This course examines "culture wars" in American public schools over the past century. It will explore how and why school curriculum has become an arena for cultural conflict and how those debates have changed over time. These debates clashes in schools over religion, values, politics, and educational aims raise important questions about majority and minority rights, the existence and meaning of a common national culture, and the role of schooling in a democratic nation. Enrollment limited to 20 first year students and sophomores. M
Fall HIST0980C S01 24221 Th 4:00-6:30(17) (T. Steffes)

HIST 0980J. Welfare States and a History of Modern Life.
History of the American welfare state, from its origins in nineteenth-century industrial capitalism to contemporary debates about health care, in comparative perspective. Why did welfare states appear and what form did the U.S. version take? Considerations of social inequality, labor relations, race, gender, family policy, the social wage, and the relationship between markets and the state are all considered. Some comparison with European models. SOPH M
Spr HIST0980J S01 25637 M 3:00-5:30(13) (R. Self)

Focuses on the ancient Greeks, Romans, and Jews, from 300 B.C.E. to 400 C.E. Covers primarily social, philosophical, and religious areas of contention and accommodation, ending with the late Antike, Christianity, and rabbinic Judaism. P
Spr HIST1000B S01 25139 TTh 10:30-11:50(09) (K. Sacks)

HIST 1030. The Long Fall of the Roman Empire.
Once thought of as the "Dark Ages," this period of western European history should instead be seen as a fascinating time in which late Roman culture fused with that of the Germanic tribes, a mixture tempered by a new religion, Christianity. Issues of particular concern include the symbolic construction of political authority, the role of religion, the nature of social loyalties, and gender roles. P
Fall HIST1030 S01 14867 TTh 10:30-11:50(13) (J. Conant)

HIST 1031. The Viking Age.
For two centuries, Viking marauders struck terror into hearts of European Christians. Feared as raiders, Norsemen were also traders and explorers who maintained a network of connections stretching from North America to Baghdad and who developed a complex civilization that was deeply concerned with power and its abuses, the role of law in society, and the corrosive power of violence. This class examines the tensions and transformations within Norse society between AD 750 and 1100 and
<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Term</th>
<th>Days</th>
<th>Time</th>
<th>Instructor(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1040</td>
<td><strong>Crusaders and Cathedrals, Deviants and Dominance:</strong> Europe in the High Middle Ages.</td>
<td>Spr</td>
<td>TTh</td>
<td>10:00-11:50(09)</td>
<td>A. Remensnyder</td>
</tr>
<tr>
<td>HIST 1131</td>
<td><strong>Europe Since 1945.</strong> This course surveys political, economic, social, and cultural developments in Europe after the end of the Second World War. The two world wars radically transformed European civilization. Adopting a mixed chronological and thematic approach, this course will analyze these changes and explore the diverse efforts to (re)construct Europe after 1945. We will pay particular attention to the legacy of the Holocaust, the Cold War and its enduring legacies for Europe, decolonization and immigration, transnational identities and the idea of a cosmopolitan Europe. The course will consist of lectures/discussions. No previous history courses are required for successful completion of this course.</td>
<td>Fall</td>
<td>MWF</td>
<td>1:00-2:20(10)</td>
<td>P. Kadercan</td>
</tr>
<tr>
<td>HIST 1150</td>
<td><strong>The French Revolution.</strong> This course aims to provide a basic factual knowledge of the French Revolution, an understanding of the major historiographic debates about the revolutionary period, and a sense of the worldwide impact of events occurring in late-eighteenth century France. A strong historiographic focus will direct our attention to the gendered nature of the revolutionary project; the tension between liberty and equality that runs throughout French history; the intersection of race and citizenship in the Revolution; and the plausibility of competing social, political, and cultural interpretations of the Revolution.</td>
<td>Fall</td>
<td>MWF</td>
<td>1:00-1:50(06)</td>
<td>J. Reville</td>
</tr>
<tr>
<td>HIST 1190</td>
<td><strong>The Roots of Modern Science.</strong> This course explores the ways theories of physics, chemistry, biology and mathematics grew in relation to the natural, cultural and social worlds of the 18th and 19th centuries. There are no formal pre-requisites for the course, which is designed to be equally open and accessible to science and humanities students.</td>
<td>Spr</td>
<td>TTh</td>
<td>1:00-2:20(10)</td>
<td>J. Richards</td>
</tr>
<tr>
<td>HIST 1230</td>
<td><strong>European Intellectual History: Exploding the Modern.</strong> The overarching theme of the course is the relationship between modernity and the primitive as manifested in major cultural, aesthetic and political movements in the 20th century. Films are an integral part of the course.</td>
<td>Spr</td>
<td>TTh</td>
<td>10:00-10:50(03)</td>
<td>M. Gluck</td>
</tr>
<tr>
<td>HIST 1301</td>
<td><strong>Nineteenth-Century Cities: Paris, London, Chicago.</strong> This course surveys the literature on the origins of visual information - architecture, entertainment, mapping, shopping, advertising, painting, and film - in the modern city. For each of these visual productions, both form and content are implicated in the political and social worlds of their original settings. Nineteenth-century issues of labor, gender, consumption, and governance played a role in making the original spectacles. What messages they contained, who produced them, and who witnessed them were determined by contemporary hierarchies, political struggle, and technology.</td>
<td>Spr</td>
<td>TTh</td>
<td>10:00-1:50(06)</td>
<td>E. Guli</td>
</tr>
<tr>
<td>HIST 1311</td>
<td><strong>Land Use and Capitalism, 1350-2013.</strong> This course offers an overview of major traditions for analyzing landscape in political economy, theology, literature, anthropology, asking how imaginary landscapes of the mind become the material realities of farm and highway. Themes will include the rise of modern, surveying, engineering, cities, infrastructure systems, and land reform. It will ask how historic models of government have played out in an era of environmental disaster, famine, mortgages, and evictions. We will explore tensions between political centralization and heterotopias, nomadic and settled people, peoples' movements and finance, exploring questions about the spiritual, economic, aesthetic, ecological, political relationship of people to territory.</td>
<td>Spr</td>
<td>TTh</td>
<td>1:00-1:50(06)</td>
<td>J. Conant</td>
</tr>
<tr>
<td>HIST 1340</td>
<td><strong>Modern France.</strong> This course follows the history of France from the time of Louis XIV to the present, focusing on social and cultural trends, with particular emphasis on the boundaries of French national identity. It asks who belonged to the French nation at key moments in French history, including the Enlightenment, the French Revolution, the Napoleonic era, industrialization, imperialism, and the two world wars, as well as the complex questions presently facing France. We will examine how inclusions and exclusions during these moments reveal larger themes within French history, such as those dealing with race, class, gender, immigration, and anti-Semitism, amongst others.</td>
<td>Spr</td>
<td>TTh</td>
<td>2:30-3:50(11)</td>
<td>K. Colvin</td>
</tr>
<tr>
<td>HIST 1420</td>
<td><strong>The Collapse of Socialism and the Rise of New Russia.</strong> This course examines late Soviet socialism, the collapse of the USSR, and the emergence of the new Russia. The following themes are emphasized in lectures and readings: the major features of de-Stalinization; Soviet and Russian foreign policy during and after the Cold War; the domestic and international causes and consequences of the collapse of the Soviet Union; and the emergence of a new Russian government and national identity during the 1990s and early 2000s.</td>
<td>Spr</td>
<td>TTh</td>
<td>10:00-10:50(03)</td>
<td>E. Pollock</td>
</tr>
<tr>
<td>HIST 1430</td>
<td><strong>Truth on Trial: Justice in Italy, 1400-1800.</strong> Law courts had a profound impact on Italian society and culture between the Renaissance and the Enlightenment. Law courts helped define what constituted deviance, legitimate knowledge, and individual rights. They did so in a long ago world in which it was possible to imagine that some gifted individuals could fly, that certain people were created superior to others, and that the sun revolved around the earth. From the persecution of heretics and witches, to the trial of Galileo and the increasing use of courts by women and other marginalized groups, the Italian legal arena mediated what was political, social, scientific, and religious truth. By the eighteenth century many judicial practices came under criticism, including the use of torture and the death penalty. How did reformers attempt to remake the legal regime and the society in which it was by then so intricately entangled? LILE WRIT</td>
<td>Spr</td>
<td>TTh</td>
<td>1:00-2:20(10)</td>
<td>C. Castiglione</td>
</tr>
<tr>
<td>HIST 1455</td>
<td><strong>The Making of the Modern Middle East, 1750 to the Present.</strong> From North Africa to Afghanistan, Turkey to the Arabian peninsula, the goal of this course is to provide students with a robust background in modern Middle Eastern history, broadly defined. We begin in the long nineteenth century, an era of intense social and economic transformation that led to the collapse of the Ottoman empire and emergence of a new state system, primarily under British and French colonial rule. We then explore forces shaping the contemporary region, including nationalism, oil, regional conflicts and the Cold War, Islamism and mass politics, and military interventions by the US and other world powers.</td>
<td>Spr</td>
<td>TTh</td>
<td>1:00-2:20(10)</td>
<td>F. Ahmed</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
country and its people, relations with its neighbors, and role in the modern world. Third, we’ll illustrate Afghanistan’s unique status as a transregional borderland between three “Area Studies” in US academia—Middle East, Central Asia, South Asia—providing a springboard for advanced study or work in one or more fields. E

Fall HIST1461 S01 15462 TTh 10:30-11:50(09) (F. Ahmed)

HIST 1490. History of Medicine I: Medical Traditions in the Old World Before 1700.
People have always attempted to promote health and prolong life, and to ameliorate bodily suffering. Those living in parts of Eurasia also developed textual traditions that, together with material remains, allow historians to explore their medical practices and explanations, including changes in their traditions, sometimes caused by interactions with other peoples of Europe, Asia, and Africa. The course will introduce students to the major medical traditions of the Old World to about 1700, with an emphasis on Europe, and explore some of the reasons for change. A knowledge of languages and the social and natural sciences is welcome but not required. Not open to first year students. P

Fall HIST1490 S01 14848 MWF 9:00-9:50(16) (H. Cook)

HIST 1491. History of Medicine II: The Development of Scientific Medicine in Europe and the World.
From the 18th century onward, Western medicine has claimed universal validity due to its scientific foundations, relegating other kinds of medicine to the status of “alternative” practices. The course therefore examines the development of scientific medicine in Europe and elsewhere up to the late 20th century, and its relationships with other medical ideas, practices, and traditions. Students with a knowledge of languages and the social and natural sciences are welcome but no prerequisites are required. Not open to first year students. E

Spr HIST1491 S01 24189 MWF 9:00-9:50(02) (H. Cook)

More than one hundred years ago Chinese intellectuals began to aspire to “wealth and power,” setting China on a path of enormous social transformation, human suffering, and empowerment on an unprecedented scale. What were the complex factors, local and global, that shaped China to become what it has today: a multiethnic nation and a capitalist economy required. Not open to first year students. M

Fall HIST1504 S01 16818 MWF 2:00-2:50(07) (A. Belogurova)

The history of China is inseparable from the history of the Chinese communities overseas; neither can be understood outside of the context of the history of the world. Territorial and economic expansion, along with the movement of people and ideas, shaped the history of China and of Chinese migration over the course of the past millennium. These processes accelerated as the world became increasingly connected and globalized towards the end of the nineteenth century. Besides examining the turning points of this process, we will focus on the Chinese state’s policy regarding migration and its relationship with the Chinese living overseas.

Spr HIST1505 S01 26128 TTh 1:00-2:20(10) (A. Belogurova)

HIST 1530. Modern Korea: Contending with Modernity.
This course examines the extraordinarily rapid revolution of Korea from an isolated, agrarian society into a culturally modern, industrialized, and democratic nation that is an important actor on the world stage. It also will investigate how a non-Western society generates its own inspiration for human relations, social structure, political and cultural values. Includes coverage of North Korea. M

Fall HIST1530 S01 14851 MWF 10:00-10:50(03) (J. McClain)

Examines the cultural traditions of the urban samurai, the wealthy merchant, and the plebian artisan that emerged in the great metropolitan cities of Edo, Osaka, and Kyoto during the early modern period. Focuses on the efforts of the government to mold certain kinds of cultural development for its own purposes and the efforts of various social groups to redirect those efforts to suit their desires and self-interest. P

Fall HIST1540 S01 24235 TTh 9:00-10:20(08) (J. McClain)

The Polish-Lithuanian Commonwealth was the largest state in early-modern Europe, home to a diversity of ethnic and religious groups. We will examine how they lived together and interacted in this unique setting. The rise of the nobility and development of Poland’s constitutional monarchy show how Polish identity was transformed. The interaction of Germans, Italians, Scots, and Jews as “national” groups within urban society, and the economic dynamism of Jews and Armenians reveal the possibilities and problems of social integration. The experiences of Protestants, the Ukrainian Orthodox population, and the Moslem Tatars demonstrate the meaning and limitations of Polish religious tolerance. M

Spr HIST1551 S01 25818 TTh 10:30-11:50(09) (A. Teller)

There were multiple forms of slavery in the Early Modern world. We will look at three major systems: Mediterranean slavery and the Barbary Corsairs, Black Sea slavery and the slave elites of the Ottoman Empire, and the Atlantic triangular trade. We will examine the religious, political, racial, and economic bases for these slave systems, and compare the experiences of individual slaves and slave societies. Topics discussed include gender and sexuality (e.g. the institution of the Harem and the eunuchs who ran it), the connection between piracy and slavery, and the roles of slavery in shaping the Western world. WRIT DPLL M

Fall HIST1553 S01 16027 TTh 10:30-11:50(13) (A. Teller)

Uses film, oral histories, historical fiction, and more traditional forms of historical interpretation to explore the events, ideas, and legacies of Japan’s Pacific War. The armed conflict began in 1937 with the Japanese invasion of China and ended in 1945 with the atomic bombing of Hiroshima and Nagasaki. Some attention is paid to military developments, but the principle concerns fall into the areas of mutual images, mobilization, and memory. M

Spr HIST1570 S01 24200 MWF 11:00-11:50(04) (K. Smith)

HIST 1571. The Making of Modern East Asia.
This course examines Asia in the shaping of the modern world, from competing definitions of empires circa 1800 to the rise of the notion of the twenty-first as a “Pacific Century.” It investigates the definition(s) of Asia as a world region, explores transnational interactions and emphasizes Asians as historical actors via written, visual and aural sources. Events are placed in the context of key historical paradigms, including varying definitions of modernity, the rise of the nation-state, birth of mass politics, new mechanisms of war, the language of self-determination, changing views of gender, shifting types of media and consumption, etc. M WRIT

Fall HIST1571 S01 15839 MWF 10:00-10:50(03) (K. Smith)

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. M

Fall HIST1580 S01 14869 TTh 1:00-2:20(10) (V. Zamindar)

HIST 1600. 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 HIST1600 S01 15840 MWF 11:00-11:50(04) (R. Cope)
HIST 1610. Reform and Rebellion: Mexico, 1700-1867. This course focuses on Mexico's difficult transition from colony to nation. We will examine the key political, social, economic, and cultural developments during this period. Major topics will include: the paradoxical eighteenth century, which saw Mexico emerge as the most prosperous region of the Spanish empire, even as social and economic tensions deepened; the outbreak of peasant rebellions in the early nineteenth century; the elite-led movement for independence; the economic decline and political turmoil of the early republic; foreign interventions by the United States and France; and the rise of the Liberals as Mexico's dominant political force. E
Spr HIST1610 S01 24191 MWF 11:00-11:50(04) (R. Cope)

HIST 1620. 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. The Spanish and Portuguese conquerors brought with them the world of the Crusades, the Inquisition, and the Renaissance. Native Americans lived there already, in rich empires and hunter-gatherer bands. Africans came as slaves from Senegal, Nigeria, Congo and Angola, bringing old traditions and creating new ones. These diverse peoples blended together to form a new people. This was a place of violence, slavery and oppression -- but also of art, faith, new societies and new ideas. P
Spr HIST1620 S01 25866 TTh 2:30-3:50(11) (J. Mumford)

HIST 1630. 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. M
Spr HIST1630 S01 25896 MWF 10:00-10:50(03) (D. Rodriguez)

HIST 1637. Sub-Saharan Africa, 1945-2015: Sovereign States and Modern Developments. This course considers major actors and developments in sub-Saharan Africa from the mid-nineteenth through the mid-twentieth centuries. With a critical awareness of the ways that Africa's past has been narrated, it balances coverage of the state and economy with attention to daily life, families, and popular culture. The majority of the reading assignments are drawn from contemporary documents, commentaries, interviews, and memoirs. Works produced by historians supplements these. Students will analyze change, question perspectives, and imagine life during the age of European imperialism. Written assignments include a book review, two examinations, and identifying and editing a primary source text. WRIT M
Fall HIST1637 S01 25463 MWF 12:00-12:50(05) (N. Jacobs)

HIST 1639. Sub-Saharan Africa, c. 1850-1946: Colonial Contexts and Everyday Experiences. This course considers major actors and developments in sub-Saharan Africa from the mid-nineteenth through the mid-twentieth centuries. With a critical awareness of the ways that Africa's past has been narrated, it balances coverage of the state and economy with attention to daily life, families, and popular culture. The majority of the reading assignments are drawn from contemporary documents, commentaries, interviews, and memoirs. Works produced by historians supplements these. Students will analyze change, question perspectives, and imagine life during the age of European imperialism. Written assignments include a book review, two examinations, and identifying and editing a primary source text. WRIT M
Fall HIST1639 S01 15841 MWF 12:00-12:50(12) (N. Jacobs)

HIST 1671. Brazil: From Abolition to Emerging World Power. How did Brazil transform itself from a slave society in 1888 to rising international economic and political force? This course will examine the history of Brazil from the end of slavery to the present. We will analyze the reasons behind fall of the Empire and the establishment of a Republic, the transformations that took place as immigrants arrived from Europe, Japan, and the Middle East in the early twentieth century, and the search for new forms of national identity. We will study the rise of authoritarian regimes and the search for democratic governance in more recent years. M
Fall HIST1671 S01 14871 TTh 2:30-3:50(11) (J. Green)

HIST 1681. 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. M
Spr HIST1681 S01 25909 MWF 2:00-2:50(07) (J. Lambe)

HIST 1740. The American Civil War. In this course we will investigate the "feared histories" of the American Civil War—the personal experiences of Americans (northerners and southerners, slaves and freed people, European immigrants and Native Americans, men and women) who fought its battles and bore its consequences. These histories, as Robert Penn Warren notes, are an "index to the very complexity, depth, and fundamental significance" of the conflict. In addition to military and political dimensions we will also examine constructions of Civil War memory (photography, film, and other media) and the dominant narratives that have shaped our understanding of the war since 1865. M
Fall HIST1740 S01 14942 MWF 12:00-12:50(12) (M. Vorenberg)

HIST 1750. American Politics and Culture Since 1945. History of the United States between the end of World War II and the present. Major themes and topics include race and civil rights, women's history and feminism, the Cold War, Vietnam, and U.S. foreign policy, suburbanization and the urban crisis, the rise and fall of the welfare state, and a history of consumption and popular culture. M
Fall HIST1750 S01 14872 TTh 2:30-3:50(11) (R. Self)

HIST 1755. The Intimate State: The Politics of Gender, Sex, and Family in the U.S., 1873-Present. Examines the “intimate politics” of gender norms, sex and sexuality, and family structure in American history, from the 1870s to the present. Major themes and topics include race and civil rights, women's history and feminism, the Cold War, Vietnam, and U.S. foreign policy, suburbanization and the urban crisis, the rise and fall of the welfare state, and a history of consumption and popular culture. M
Fall HIST1755 S01 24210 TTh 2:30-3:50(11) (R. Self)

HIST 1783. Science and Capitalism. We will explore the longstanding relationship between science and commerce from the 17th century to our own asking when the modern notion of science as a disinterested pursuit of objective truth took root. We will also explore how knowledge of the natural world has been shaped by personal, financial, and other kinds of self-interest in a number of diverse contexts ranging from Galileo's invention of the telescope in Renaissance Italy to the patenting of genetically engineered organisms in today's world, paying special attention to the diverse mechanisms that have been devised to guard against fraud and disinformation. E
Spr HIST1783 S01 25464 MWF 2:00-2:50(07) (L. Rippel)

HIST 1790. Environmental History. Environmental history examines the changing relationship between human beings and their physical surroundings. We will actively question the boundary between nature and culture, showing how social and natural history mutually inform one another. We will do so by asking three interrelated questions. First, how has the material context in which history unfolded impacted the development of our culture, society, and economy? Second, how and why did people’s ideas and representations of the natural world change over time? Finally, in what ways and to what ends have human beings actively though not always intentionally altered their physical surroundings? M
Fall HIST1790 S01 14858 MWF 1:00-1:50(06) (L. Rippel)
HIST 1820. American Urban History to 1870.
Both a survey covering urbanization in America from colonial times to the present, and a specialized focus exploring American history from an urban frame of reference. Examines the premodern, "walking" city from 1600-1870. Includes such topics as the Revolution and Civil War, the development of urban services, westward expansion, and social structure. E
Fall HIST1820 S01 14849 MWF 9:00-9:50(16)  (H. Chudacoff)

HIST 1850. American Legal and Constitutional History.
History of American law and constitutions from European settlement to the end of the 20th century. Not a comprehensive survey but a study of specific issues or episodes connecting law and history, including witchcraft trials, slavery, contests over Native American lands, delineations of race and gender, regulation of morals and the economy, and the construction of privacy. E
Spr HIST1850 S01 24201 MWF 12:00-12:50(05)  (M. Vorenberg)

HIST 1860. Modern European Women + Gender History.
This course deals with the history of European women and gender from the Enlightenment to the present. It will focus on large historical themes and questions, especially shifting constructions of femininity and masculinity. It will begin with an analysis of eighteenth-century philosophies regarding women and gender, and it will move to examinations of specific topics such as industrialization, Victorian femininity, the suffrage movements, gender and the Great War, interwar sexuality, fascism, gender and the Second World War, and the sexual revolution. M
Fall HIST1860 S01 16654 MWF 12:00-12:50(12)  (K. Colvin)

HIST 1890. Empires in America to 1890.
This course surveys the development of American foreign relations from initial encounters between Native Americans and newly arrived Europeans to the extension of EuroAmerican power beyond the continental United States. By being attentive to a wider global context, we will attempt to understand the trajectory of "America" from a colonial hinterland to dominant world power. E
Fall HIST1890 S01 14859 MWF 2:00-2:50(07)  (N. Shibasawa)

HIST 1900. American Empire Since 1890.
This survey of twentieth-century US foreign relations will focus on the interplay between the rise of the United States as a superpower and American culture and society. Topics include: ideology and U.S. foreign policy, imperialism and American political culture, U.S. social movements and international affairs, and the relationship between U.S. power abroad and domestic race, gender and class arrangements. M
Spr HIST1900 S01 24204 MWF 2:00-2:50(07)  (N. Shibasawa)

Interested students must register for EDUC 1200.
Spr HIST1930A S01 25592 Arranged 'To Be Arranged'

HIST 1930B. Academic Freedom on Trial: A Century of Campus Controversies (EDUC 1740).
Interested students must register for EDUC 1740.
Fall HIST1930B S01 16277 Arranged 'To Be Arranged'

HIST 1930J. Word, Image and Power in Renaissance Italy (ITAL 1580).
Interested students must register for ITAL 1580.
Fall HIST1930J S01 16272 Arranged 'To Be Arranged'

HIST 1930L. The History of American Education (EDUC 1020).
Interested students must register for EDUC 1020.
Fall HIST1930L S01 16274 Arranged 'To Be Arranged'

HIST 1930R. Roman History I: The Rise and Fall of an Imperial Republic (CLAS 1310).
Interested students must register for CLAS 1310.
Fall HIST1930R S01 16282 Arranged 'To Be Arranged'

HIST 1930S. Roman History II: The Roman Empire and Its Impact (CLAS 1320).
Interested students must register for CLAS 1320.
Spr HIST1930S S01 25821 Arranged 'To Be Arranged'

HIST 1930W. Introduction to Yiddish Culture (JUDS 1713).
Interested students must register for JUDS 1713.
Spr HIST1930W S01 25723 Arranged 'To Be Arranged'

HIST 1930Y. The Pogrom: Violence in Modern Jewish History (JUDS 1719).
Interested students must register for JUDS 1719.
Spr HIST1930Y S01 25616 Arranged 'To Be Arranged'

HIST 1931B. Money, Power, Sex and Love: the Modern Jewish Family in Europe and America (JUDS1722).
Interested students must register for JUDS 1722.
Fall HIST1931B S01 16417 Arranged 'To Be Arranged'

HIST 1931D. Society and Population in Ancient Greece (CLAS 1130).
Interested students must register for CLAS 1130.
Fall HIST1931D S01 16563 Arranged 'To Be Arranged'

HIST 1953. Brazil: From Conquest to the End of Slavery.
This class surveys the history of Brazil from the early phase of Portuguese conquest in the sixteenth century to the end of African slavery at the end of the nineteenth century. We pay close attention to religious and cultural exchange, as well as Brazilian social and economic ties to African through transatlantic slave trade. We devote significant attention to subaltern groups in Brazilian society, focusing on women role in Brazilian colonial society and African and African descent people agency in the context of abolition of slavery in Brazil. We will make extensive use of movies, YouTube videos, and radio interviews. M
Spr HIST1953 S01 24934 TTh 9:00-10:20(08)  (R. Ferreira)

HIST 1960l. Portuguese Discoveries and Early Modern Globalization (POBS 1600D).
Interested students must register for POBS 1600D.
Fall HIST1960l S01 16273 Arranged 'To Be Arranged'

HIST 1960P. Museum Histories (AMST 1903I).
Interested students must register for AMST 1903I.
Spr HIST1960P S01 25053 Arranged 'To Be Arranged'

HIST 1960R. Urban Schools in Historical Perspective (EDUC 1720).
Interested students must register for EDUC 1720.
Spr HIST1960R S01 25596 Arranged 'To Be Arranged'

Interested students must register for JUDS 1718.
Spr HIST1960T S01 25613 Arranged 'To Be Arranged'

Interested students must register for HMAN 1971F.
Fall HIST1960W S01 16389 Arranged 'To Be Arranged'

HIST 1960X. American Jews and Israel: From AIPAC to J Street (JUDS 1717).
Interested students must register for JUDS 1717.
Fall HIST1960X S01 16397 Arranged 'To Be Arranged'

Interested students must register for POBS 1600U.
Spr HIST1960Y S01 25940 Arranged 'To Be Arranged'

HIST 1965. Social Change in the 1960s.
The 1960s continue to resonate in today's culture as the decade left an indelible imprint on the present society. This course focuses on the tumultuous decade and incorporates the following topics: the Civil Rights Movement, race and ethnicity, the Women's Movement, the Peace movement, student movements, Vietnam War and foreign policy, sexuality, and cultural productions (music, film, art, photography). Lectures are rooted in historical narratives, but engage with interdisciplinary methodologies. In this way, as the semester unfolds we witness the complexity, the intertwining of movements and issues, and the evolution of cultural and political ideas and policy. M
Spr HIST1965 S01 24199 MWF 11:00-11:50(04)  (F. Hamlin)
HIST 1970A. Students and Scholars in the Modern Middle East
In this course we examine the profound transformations shaping societies and cultures across the Middle East through the lives, writings, and educational institutions of students and scholars in the region. From “traditional” madrasas, seminaries, and yeshivas, to missionary schools and American universities, we’ll make use of memoirs, biographies, and other social histories to explore a range of institutions of learning—and their complex relationships with colonialism, nationalism, Islamism, and modern state-building. Our goal: to explore the contestations and negotiations between education, everyday life, and political authority—from participatory to autocratic modes, from Morocco to Afghanistan, from 1700 to the present. M
Fall HIST1970A S01 15842 W 3:00-5:30(17) (F. Ahmed)

HIST 1970E. Brazil Under Vargas: Reshaping the Nation.
How did Getúlio Vargas, a large rancher from the southern Brazil, end up playing such a significant role in country’s history during the twentieth century? This seminar will examine the conditions that brought Vargas to presidential power in 1930, the influence he had on economic development, cultural nationalism, and the shaping of ways Brazilians understand their country until 1945. We will consider his return to power in 1950 as a democratic and populist figure and evaluate his legacy and lasting influence on politics, economics, notions of nationalism, music, Carnival, and culture. M
Spr HIST1970E S01 25465 W 3:00-5:30(14) (J. Green)

This seminar will explore ramifications of the concept of the Anthropocene. The Anthropocene has been proposed as a new human-driven geologic age that began with the increased exploitation of fossil fuels in the late eighteenth century. Its proponents emphasize transformations through anthropogenic climate change, but we will also consider the effects of population growth, pollution, habitat destruction, and extinction. To assess the historical validity of the concept, we will discuss the impact of humans on the environment before 1800, the extent of transformation since 1800, and whether human-environmental interactions can be usefully generalized to our species as a whole. WRIT M
Fall HIST1970G S01 15843 Th 4:00-6:30(02) (N. Jacobs)

HIST 1970J. Making Revolutionary Cuba.
In January 1959, the forces of rebel leader Fidel Castro entered Havana and forever altered the destiny of their nation and the world. In this upper-level seminar, we will examine the question of political hegemony and the many silences built into the achievement of Revolution—from sexuality to race and culture—even as we acknowledge that popular support for that Revolution has often been both genuine and heartfelt. Throughout the semester, we will explore this countertrend between the Revolution’s successes in the social, economic, and political spheres and its equally patent exclusions as it shaped Cuba’s past, present, and uncertain future. M
Spr HIST1970J S01 26058 Th 4:00-6:30(17) (J. Lambe)

This is a course for students interested in questions about the development of atomic weapons, their use on Hiroshima and Nagasaki, the Cold War arms race that followed, and debates over the risks associated with other nuclear technologies. We will look carefully at the scientific and military imperatives behind the Manhattan Project, the decisions that led to the use of atomic weapons on Japan, and subsequent efforts to reflect on the consequences of those choices. We will also explore how popular protest and popular culture after 1945 shaped our understanding of the terrors and promise of the nuclear age. WRIT Spr HIST1970M S01 24223 Th 4:00-6:30(17) (K. Smith)

HIST 1970N. Christian Muslim Relations in the Middle Ages.
This course will examine Christian-Muslim relations during the eleventh through fourteenth centuries. It takes a broad definition of Christianity and includes the experiences of the Roman, Byzantine and Eastern churches. As a result, students will examine Christian-Muslim relations in a number of locations throughout the Mediterranean and Near East, ranging from Spain, the Levant, and Persia. Comparative views on sacred land, political and religious violence, philosophy, politics, learning and scientific understanding will be examined, with particular reference to primary texts in translation. WRIT, LILE, DPLL P
Spr HIST1970N S01 16026 T 4:00-6:30(18) (A. Watson)

HIST 1970Q. Approaches to The Middle East.
This seminar introduces students to the interdisciplinary field of Middle East Studies in the broader context of the history of area studies in the humanities and social sciences. Why and when did the Middle East become an area of study? What are the approaches and topics that have shaped the development of this field? And what are the political implications of contending visions for its future? The readings sample canonical and alternative works and the classes feature visits by leading scholars who research and write on this region. M
Fall HIST1970Q S01 16304 M 3:00-5:30(15) (B. Doumani)

Between 1890 and 1980, movements for freezing rents and redistributing haciendas transformed law in almost every nation in the world. In the form of the Via Campesina, global land movements constitute the most numerous movements today. Their contentsions over land and water constitute one of the most coherent legal grounds for fighting global warming.

Students will read of key documents from rent strikes, global governance, and liberation theology, gaining acquaintance with key events and authors. Exercises will involve using digital tools to analyze World Bank reports, primary-source documents from the global history of squatting, and independent research. M
Fall HIST1970U S01 16028 Th 4:00-6:30(02) (E. Guldi)

In the last decade, millions of books and newspapers from our collective past have been digitized. New tools like topic modeling or digital maps have appeared to cut through information overload. In policy and the media, we argue about long-term data about the climate, prosperity, and inequality. What can the skills of the historian offer for making sense of long-term change? Advanced historical coursework OR knowledge of code is required. M
Spr HIST1971D S01 26056 W 3:00-5:30(14) (E. Guldi)

Globalization is a contested concept and a controversial subject. In this course we will try to get an idea how and why it is so. This course will provide a snapshot of the history of some processes that can be described as the globalization of Asia in their regional and Eurasian contexts from the beginning of sustained global contacts in the 1600s until today. As we think about these issues, we will also focus on the methodology of historical research and source criticism. Spr HIST1971K S01 26129 T 4:00-6:30(16) (A. Belogurova)

HIST 1971M. America and the Middle East: Social and Cultural Histories (1492-Present).
This seminar explores the evolving relations between the diverse states and peoples of the Middle East and North America through the lenses of social and cultural historians. While our course proceeds chronologically tracing primarily US foreign relations with the “Middle East”, we will not stop there. Rather, we’ll read closely for underlying socioeconomic and cultural processes—including trade patterns, migrant networks, and evolving conceptions of race, religion, and citizenship—themes often ignored by conventional histories that dwell on watershed events, personalities, and conflict. Our goal: to recognize how US-Mideast relations are far more complex, rich, and deep-rooted than is generally assumed. M Spr HIST1971M S01 25468 W 3:00-5:30(14) (F. Ahmed)

HIST 1971X. 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 culminate with the election of President Obama. Themes include citizenship, gender, labor, politics, and culture. The goal is to develop critical analysis and historiographical depth. Some background in twentieth century United States history is preferred but not required. Assignments include weekly reading responses, class participation and presentation, and two written papers. Enrollment limited to 20. DPLL WRIT M
HIST 1971X. Sex, Power, and God: A Medieval Perspective.
Cross-dressing knights, virgin saints, homophbic 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. WRIT P
Spr 2012 HIST1971X S01 24219 W 3:00-5:30(14) (F. Hamlin)

HIST 1973M. Outside the Mainstream.
When ratifying the UN Covenant on Civil Rights in 1979, its representative reported, "The right of any person to enjoy his own culture... is ensured under Japanese law. However, minorities... do not exist in Japan." Nothing could have been further from the truth. Japan is - and for a long time, has been - home to immigrants, indigenous populations forced to accept Japanese citizenship, outcast communities of Japanese ethnicity, and otherwise ordinary persons who live outside the mainstream as outlaws and prostitutes. This course examines how these minority communities came into existence and struggled to maintain distinctive lifestyles in what many view as an extraordinarily homogenous society. Enrollment limited to 20 students. M
Spr 2012 HIST1973M S02 25928 W 9:30-11:50(02) (J. Pope)

This seminar focuses on the Maya in postcolonial Guatemala. The main theme is the evolving relationship between indigenous peoples and the nation-state. Topics include peasant rebellions in the nineteenth century, the development and redefinition of ethnic identities, the military repression of the 1970s and 1980s, the Rigoberta Menchu controversy, and the Maya diaspora in Mexico and the United States. Enrollment limited to 20. M
Fall 2012 HIST1973X S01 14886 M 3:00-5:30(15) (R. Cope)

HIST 1974Y. Slave Rebellion and Conspiracy in Early America: Methods and Research.
This course invites students to conduct original research into slave insurrections and conspiracy trials in the British Atlantic colonies. Working in the JCB Library, students will explore a period of slave unrest between 1725 and 1749 that has long puzzled historians. From rebellions in the Caribbean to the New York City conspiracy trials of 1741, scholars continue to wonder at the causes and connections between these events. As they read through the literature and examine documents, students will also explore broader questions about the origins of racial violence and the meaning of liberty and slavery for early Americans.
Spr 2013 HIST1974Y S01 26125 T 4:00-6:30(16) (J. Pope)

This research seminar asks when, how, and why did Brown change from being a small, regional liberal arts college and become a “hot school” and other kinds of revolutionary and/or nationalist movements? We will review several broad explanations about the theory of fascism before turning to a more detailed examination of some of history’s most fearsome leaders, regimes and organizations. Specific cases include Italian Fascism and German National Socialism but also less familiar movements such as the Iron Guard in Romania, the Arrow Cross in Hungary, Grey Wolves in Turkey, British Union of Fascists and Croix de Feu in France.
Fall 2013 HIST1976O S01 16127 M 3:00-5:30(15) (J. Lancaster)

HIST 1976T. History of the Andes from the Inca Empire 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. Enrollment limited to 20. E WRIT
Spr 2014 HIST1976T S01 25867 Th 4:00-6:30(16) (J. Mumford)

HIST 1976Z. Charlemagne: Conquest, Empire, and the Making of the Middle Ages.
The age of Charlemagne sits at the nexus of antiquity and the middle ages. For two hundred years Charlemagne’s family, the Carolingians, welded together fragments of the splintered Roman imperial tradition and elements from the Germanic world to forge a new, medieval European civilization. This seminar examines that process by exposing students to the primary sources, archaeological evidence, and modern scholarly debates surrounding the Carolingian age. Topics include the Carolingians’ rise to power; Charlemagne’s imperial coronation; interactions with the Islamic and Byzantine worlds; the revival of classical learning; the Church; warfare; the economy; Vikings; and the collapse of the Carolingian Empire. Enrollment limited to 20. Not open to first year students. WRIT A
Spr 2013 HIST1976Z S01 14879 Th 4:00-6:30(02) (J. Lancaster)

HIST 1977M. Twentieth Century Iran.
This history of Iran in the 20th century is bracketed by two revolutions. The Constitutional Revolution of 1906 set in place the Middle East’s first parliamentary democracy; the second in 1979 ended 2500 years of monarchical reign. The 1953 Coup that ousted the democratically elected prime minister was the CIA’s first Cold War era covert operation and British intelligence’s last. The Iran-Iraq War of the 1980s was the 20th century’s longest war, leaving a million Iranian casualties. The course examines Iran’s intellectuals, writers, artists, and filmmakers, highlighting their debates on colonialism, democracy, modernity, and political Islam. Enrollment limited to 20.
Spr 2013 HIST1977M S01 25760 Th 4:00-6:30(17) (J. Lancaster)

This seminar will explore the knowledge-production and military-financial infrastructures that maintain empires, and the means through which people have resisted or embraced empire. While some attention will be made to the 19th and early 20th century colonial context, the bulk of the course will focus on the Cold War liberal era to the neoliberal regime that continues today. Topics include: popular culture and ideology, Cold War university, area studies, international anti-war networks, transnational labor activism, the anti-colonial radical tradition, and the Arab Spring/Occupy Movements. Weekly readings; evaluation based on participation and analytical essays. Enrollment limited to 20 juniors and seniors. M
Spr 2013 HIST1977Q S01 24224 W 3:00-5:30(17) (V. Zamindar)

HIST 1977V. Global Communism and Communists in East Asia.
This class explores the social history of the communist movement in Asia from the emergence of the first communist groups to the much heralded collapse of state socialism in Europe and the USSR in 1989. State socialism survived, most notably, in East Asia. How did people understand communism a century ago? How did ideas of communism change in processes of travel and translation across cultures? What is the popular memory of communism and how does it shape our today’s understandings of it? M
Fall 2013 HIST1977V S01 16819 T 4:00-6:30(18) (J. Lancaster)

Today, many are concerned with the possibility of fascism’s come back in the form of extreme rights in present-day Europe. What sets fascist movements apart from other kinds of revolutionary and/or nationalist movements? We will review several broad explanations about the theory of fascism before turning to a more detailed examination of some of history’s most fearsome leaders, regimes and organizations. Specific cases include Italian Fascism and German National Socialism but also less familiar movements such as the Iron Guard in Romania, the Arrow Cross in Hungary, Grey Wolves in Turkey, British Union of Fascists and Croix de Feu in France.
Spr 2013 HIST1977X S01 26126 Th 4:00-6:30(17) (P. Kedel claim)

Alchemists claiming to possess the philosophers’ stone; basiliisks for sale in the market; Jews pretending to be Catholics; women dressing as men: early modern Europe appeared to be an age of impostors. Officials responded to this perceived threat by hiring experts and creating courts, licenses, passports, and other new methods of surveillance in an era before reliable documentation, photography, and DNA. And yet one person’s fraud was another’s self-fashioning. We will examine instances of dissimulation, self-fashioning, and purported fraud, efforts to identify and stem deception, and debates about what was at stake when people and things were not what they seemed. Enrollment limited to 20.
Fall 2013 HIST1978L S01 15144 W 3:00-5:30(17) (T. Nummedal)
### Course Descriptions

**HIST 1979D. American Slavery and Its Afterlife.**
This upper-level seminar considers slavery and its historical and contemporary legacies. Devoting about one third of the semester to an intellectual study of slavery mostly in the nineteenth century, the rest of the course unpacks what many scholars have called, “the afterlife of slavery.” A term introduced by literary scholars, the afterlife of slavery provides an interesting and provocative way to think about American culture and politics in the twentieth and twenty-first centuries as tied firmly to the institution that formed the economic basis of the founding of this nation.

Fall HIST1979D S01 14887 M 3:00-5:30(15) (F. Hamlin)

**HIST 1979E. Medieval Kyoto - Medieval Japan.**
In the Western historical lexicon, the term “medieval” often conjures up images of backwardness and stagnation. Japan, however, pulsed with political, economic, and cultural creativity during its middle ages. This course explores topics central to Japan’s medieval revolution: - The emergence of a samurai-led shogunate and the creation of new warrior values - The appearance of Zen and popular religious sects - The creation of innovative “Zen arts” such as noh drama and the tea ceremony, and - The destruction of Kyoto and its subsequent resurgence in the sixteenth century as a city shared by aristocrats, merchants, and artisans.

P Fall HIST1979E S01 15514 T 9:30-11:50(06) (J. McClain)

**HIST 1979F. Political Economy: The Intellectual History of Capitalism.**
What are the intellectual underpinnings of modern capitalism? In this seminar, we will probe into history of economic thought by reading classic works by modern economists as well as more recent interpretations by intellectual historians. Among other things, we will discuss theories of value, property, markets, labor, inequality, and prices. We will also ask how the relationship between capitalism and other forms of production have been understood at various times. Throughout, we will pay particular attention to the different narratives and explanations that have been offered by working economists, economic historians, intellectual historians, philosophers, and historians of science.

M Fall HIST1979F S01 14882 Th 4:00-6:30(02) (L. Rieppel)

**HIST 1979H. Descartes’ World.**
An exploration of history and historical fiction through the examination of the early life of René Descartes, one of the most famous "French" philosophers of the 17th century. Little is known about his personal life however, especially before he left France for good in 1628, despite many hints about his years as a soldier, his extensive travels in Europe, and his possible political and occult associations. This seminar is designed as a collective exploration into the small pieces of evidence about his early life and the lives of his friends and enemies in order to understand it imaginatively but truthfully.

P Spr HIST1979H S01 24190 M 3:00-5:30(13) (H. Cook)

**HIST 1979K. Double Fault! Race and Gender in Modern Sports History.**
From 1936 Berlin Olympics to infamous East German swimmers of the Cold War to 1998 French soccer team, sport culture has consistently offered by working economists, economic historians, intellectual historians, philosophers, and historians of science. However, especially before he left France for good in 1628, despite many hints about his years as a soldier, his extensive travels in Europe, and his possible political and occult associations. This seminar is designed as a collective exploration into the small pieces of evidence about his early life and the lives of his friends and enemies in order to understand it imaginatively but truthfully.

M Fall HIST1979K S01 16899 M 3:00-5:30(15) (K. Colvin)

**HIST 1979L. She's So Chic! Fashion, Gender, and Nationalism in French History.**
From its beginnings, the fashion industry in France has been synonymous with the international reputation of the nation. Similarly, being “chic” or having an innate sense of discernment and style, became synonymous with French femininity. This seminar will explore the interconnectedness of the history of fashion in France, the requirements it placed on French women, and the pressures the fashion industry has borne since the 1700s. We will look at how fashion reflected and created the moods of various periods, and we will also see how French women’s national belonging has been innately tied to ability to display French fashion.

E Spr HIST1979L S02 26127 T 4:00-6:30(16) (K. Colvin)

**HIST 1979N. Environmental History of Latin America, 1492-2014.**
From the development of sugar as the major slave commodity of the 18th century Caribbean to the “Water Wars” in the Bolivian highlands at the turn of the 21st century, race, labor, and imperialism in Latin America have been shaped in relation to the natural environment. This course explores the role of the environment in the colonial and modern history of Latin America. Together, we will examine how the environment shaped the processes of conquest, displacement, settlement, and trade, as well as how these processes transformed the natural environment throughout the hemisphere.

E Spr HIST1979N S01 26033 Th 4:00-6:30(17) (D. Rodriguez)

**HIST 1990. Undergraduate Reading Courses.**
Guided reading on selected topics. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

**HIST 1992. History Honors Workshop for Prospective Thesis Writers.**
HIST 1992 and HIST 1993 students meet together as the History Honors Workshop, offered in two separate sections per week. Prospective honors students are encouraged to enroll in HIST 1992 during semesters 5 or 6. HIST 1992 offers a consideration of historical methodology and techniques of writing and research with the goal of preparing to write a senior thesis in history. Allowing students to refine research skills, define a project, prepare a thesis prospectus, required for admission to honors. Students who complete honors can count HIST 1992 as a concentration requirement.

Limited to juniors who qualify for the honors program. WRIT Fall HIST1992 S01 16046 W 3:00-5:30(17) (E. Pollock) Spr HIST1992 S01 25331 W 3:00-5:30(14) (E. Pollock) Spr HIST1992 S02 25332 M 3:00-5:30(13) (E. Pollock)

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 12923 Arranged (E. Pollock)
Spr HIST1993 S01 22259 MW 3:00-5:30 (E. Pollock)

**HIST 1994. History Honors Workshop for Thesis Writers, Part II.**
This is the second half of a year-long course, upon completion the grade will revert to HIST 1993. Prerequisite: HIST 1993. WRIT Fall HIST1994 S01 16047 Arranged (E. Pollock) Spr HIST1994 S01 25333 W 3:00-5:30(14) (E. Pollock)

**HIST 2450. Exchange Scholar Program.**
Fall HIST2450 S01 14423 Arranged Spr HIST2450 S01 23792 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 14424 Arranged Spr HIST2890 S01 23793 Arranged

**HIST 2910. Reading and Research.**
Section numbers vary by instructor. Please see check Banner for the correct section number and CRN to use when registering for this course.

**HIST 2930. Colloquium.**
Required of all first-year graduate students; includes participation in Thursday Lecture Series.

E Fall HIST2930 S01 16105 W 3:00-5:30(17) (C. Brokaw)

**HIST 2935. Historical Crossings: Empires and Modernity.**
“Historical crossings” is a rough translation of histoire croisée, referring to global configurations of events and a shared history, rather than to a traditional comparative history. This Seminar is designed to be the...
comestone of the M.A. program. It will not serve as a traditional historical methods course but instead focus on training students to read and think on various scales of historical analysis—from cross-cultural and trans-geographic to the granularity of social and cultural specificity, requiring students to think both globally and locally and introducing them to an advanced level of historical inquiry, debate, and exploration.

Fall HIST2935 S01 16677 W 3:00-5:30(17)  (N. Shibusawa)

HIST 2940. Graduate Workshop: The Practice of History.
Required of all incoming Ph.D. students. E
Fall HIST2940 S01 15519 M 12:00-2:20(12) (K. Smith)

HIST 2950. Professionalization Seminar.
Required of all second year Ph.D. students; includes participation in Thursday Lecture Series. E
Spr HIST2950 S01 24781 Arranged 'To Be Arranged'

HIST 2960. Prospectus Development Seminar.
This required course open only to second-year students in the History Ph.D. program focuses on the development of a dissertation prospectus. The seminar will include considering the process of choosing a dissertation topic, selecting a dissertation committee, identifying viable dissertation projects, articulating a project in the form of a prospectus, and developing research grant proposals based on the prospectus. E
Spr HIST2960 S01 24783 Arranged 'To Be Arranged'

HIST 2970A. New Perspectives on Medieval History.
Over the past several decades, the field of medieval history has been reshaped radically. New approaches have changed the ways that medievalists think about old subjects. Our understanding of medieval society itself has expanded as previously marginal or unexplored subjects have become central to medievalists’ concern. This seminar explores how the ways in which medieval historians practice their craft have altered in response to these developments. Readings in classic older works are juxtaposed with newer ones on their way to becoming classics themselves.
Fall HIST2970A S01 15515 M 3:00-5:30(15) (A. Remensnyder)

HIST 2970B. Race, Ethnicity and Identity in the Atlantic World.
Explores the question of identity in the Atlantic world (especially the Spanish and English Atlantic) from the sixteenth to the nineteenth century. We will focus on three types of identity: 1) ethnicity; 2) race; and 3) nationality. How are such identities created and maintained? Are they “natural” or “artificial”? How do they change over time, and why? Throughout the seminar, we will consider both internal and external boundaries, how social actors - particularly subalterns - see themselves and how they are imagined by outsiders. Finally, we will examine how identity is expressed in a wide variety of media - codices, paintings, maps, oral histories, diaries, etc. - and how scholars make use of such sources.
Spr HIST2970B S01 25473 M 3:00-5:30(13) (R. Cope)

HIST 2970N. Slavery, Race, and Emancipation in 19th Century America.
An introduction to slavery and emancipation from a variety of periods, places, and perspectives, with an emphasis on the theoretical and methodological issues involved in tackling these complex subjects. Although the bulk of the course focuses on 19th-century America, all subjects will be viewed in comparative and transnational perspectives.
Spr HIST2970N S01 24958 F 3:00-5:30(15) (M. Vorenberg)

HIST 2970Q. Core Readings in 20th Century United States History.
Major topics and themes in 20th-century U.S. history. M
Fall HIST2970Q S01 15518 M 3:00-5:30(15) (R. Self)

This state-of-the-field course will introduce students to nineteenth-century U.S. history, with specific attention to how recent transnational, institutional, and cultural approaches have reframed older debates over the "Age of Jackson," "Manifest Destiny," and the "Market Revolution." This seminar offers core readings for students preparing a comprehensive exam field, while providing others with content knowledge to teach this period of American history.
Fall HIST2971J S01 15517 F 1:00-3:30(08) (S. Rockman)

HIST 2981C. The Frontiers of Empire.
This class will look at interactions along and across imperial frontier zones throughout the world, with an emphasis on the pre-modern and early modern period. Readings will be both theoretical and empirical in nature, and will focus on themes including the conceptualization of space; practices and consequences of warfare, captive-taking, and slavery; identity- and secondary state-formation; economy and society; diplomacy and the negotiation of claims to authority.
Spr HIST2981C S01 24779 W 3:00-5:30(14) (J. Conant)

HIST 2981E. Environmental History.
A topical seminar with global and chronologically broad scope, "Environmental History" surveys classic works and recent writing on explicitly environmental themes such as agriculture, conservation, energy, and anthropogenic change. Equally, it considers environmental treatments of major topics in other sub-fields such as war, science, imperialism, the body and senses, and animals. While examining this broad range of topics, we will seek what is distinctive about environmental history and how environmental considerations can enhance the students’ own research.
Spr HIST2981E S01 25871 T 6:00-8:30PM(12) (N. Jacobs)

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."
Spr HIST2981F S01 25819 Th 4:00-6:30(17) (L. Riepel)

HIST 2981I. Theory From The South.
The "global south" is a working category today for a diversity of intellectual projects centered on the non-European postcolonial world. While this category is embedded in histories of empire and culture, critical thinking since the 1970s has already done much to “provincialize Europe” and interrogate the ways in which power and knowledge have been imbricated in the making of universal claims, institutional processes and historical self-understanding. This graduate seminar will draw upon lineages of anti-colonial thought and postcolonial critique to relocate and rethink the "south" as a generative source for theory and history.
Fall HIST2981I S01 16301 Th 6:30-8:00PM(05) (V. Zamindar)

HIST 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall HIST2990 S01 14425 Arranged 'To Be Arranged'
Spr HIST2990 S01 23794 Arranged 'To Be Arranged'

History of Art and Architecture

Introduction to the history of western art and material culture from the beginning to the present. In addition to examining visual strategies of representation, the course explores the varied ways in which art reflects and shapes social, religious, and political concerns. Weekly one-hour conference required. A
Fall HIAA0010 S01 14895 MWF 12:00-12:50(12) (S. Bonde)

HIAA 0031. Pre-Islamic Empires of Iran
Introduction to art and architecture of the Ancient Near Eastern empires that flourished between the 6th century BCE and the Islamic conquests of c. 630 CE. We will consider the material culture of the Achaemenids, Seleucids, Parthians, and Sasanians, empires that inhabited primarily the areas of Mesopotamia and the Persian plateau, but spread at times as far afield as the Mediterranean coast, Egypt, the Caucasus, and the Indus Valley. Lectures will prioritize close analysis of the most illuminating art and architecture, so that you leave the course knowing not only the material evidence but also current approaches to interpreting it. A WRIT
Fall HIAA0031 S01 16909 TTh 9:00-10:20(08) (A. Chen)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
HIAA 0081. Architecture of the House Through Space and Time. This undergraduate lecture course focuses on one building type, the house, through time in Mesopotamia, China, Japan, the Islamic world, the African diaspora, India, Britain, Rhode Island, and Germany and France. Houses can be minute or monumental, vernacular or high art, provide minimal shelter or afford the material and psychic satisfaction of home. By studying houses, we can bypass some of architectural history's biases, and explore some of the major debates in the discipline: What is architecture? Who determines what is included/excluded in this category? And on what basis do they make these claims? WRIT A Spr HIAA0081 S01 26114 MWF 11:00-11:50(04) (I. Osayimwese)

HIAA 0130A. The City: An Introduction to Urban Studies (URBN 0210). Interested students must register for URBN 0210. Fall HIAA0130A S01 16961 Arranged 'To Be Arranged'

HIAA 0130B. Art in Antiquity: An Introduction (ARCH 0030). Interested students must register for ARCH 0030. Spr HIAA0130B S01 25715 Arranged 'To Be Arranged'

HIAA 0130J. Introduction to Egyptian Archaeology and Art (ARCH 0150). Interested students must register for ARCH 0150. Fall HIAA0130J S01 16962 Arranged 'To Be Arranged'

HIAA 0580. Word, Image and Power in Renaissance Italy. This class is designed to introduce cultural and historical perspectives on Italy from Siena in the Middle Ages to Venice in the High Renaissance. Taught by professors of Italian Literature, Art History and History, we will move across Italy and the centuries focusing on monuments of literature, art, architecture, and history through different disciplinary lenses. WRIT Fall HIAA0580 S01 16475 MWF 10:00-10:50(03) (E. Lincoln)

HIAA 0620. The Age of Rubens and Rembrandt: Visual Culture of the Netherlands in the Seventeenth Century. Surveys the amazing art in Holland and Flanders that revolutionized all media. We will see how paintings, sculpture, and architecture formed the historical environment of life in the 17th-century Netherlands. The work of such artists as Rubens, Rembrandt, Van Dyck, and Vermeer is presented as part of this history of art in a "golden age." Weekly one-hour conference required. Spr HIAA0620 S01 25854 TTh 1:00-2:20(10) (J. Muller)

HIAA 0700. Nineteenth-Century Architecture. Surveys stylistic developments, new building types, and the changing conditions of architectural production through the 19th century. Special emphasis placed on the social context in which buildings were designed and used. Weekly one-hour conference required. A Spr HIAA0700 S01 24177 TTh 10:30-11:50(09) (D. Neumann)

HIAA 0770. Architecture and Urbanism of the African Diaspora. This lecture course introduces the built environments in and of "Africa," from the earliest known examples to the contemporary moment. Through a consideration of texts and images, we will interrogate "Africa" as both a construct and concrete geographical entity characterized by diverse cultures, contexts, and histories. In addition to exploring the content of various architectural and urban traditions, we will approach our topic from the point of view of the theoretical paradigms that have governed the historiographical interpretation of particular periods, regions, and cultures. Readings will be arranged thematically and according to chronology and geography. Weekly one-hour section required. DPLL WRIT Fall HIAA0770 S01 14894 TTh 10:30-11:50(13) (I. Osayimwese)

HIAA 0801. Art After '68. The tumultuous social unrest of the 1960s was concretized in a worldwide succession of civic revolts in 1968. Throughout this period, art was an organizing tool for various political events. In turn, the concept of 1968 generated an aesthetic response that supported, documented and historicized the period. This course will examine the art and new art forms created in wake of the 1968 riots. We will also look closely at the strategies and contemporary art making that are influenced by the spirit of 1968. WRIT Spr HIAA0801 S01 26111 TTh 9:00-10:20(08) (C. Martin)

HIAA 0900. City and Cinema. An examination of the mutual influence between two of the major art forms of the 20th century: film and architecture. Concentrates on European and American film sets throughout the 20th century and explores their formal and iconographical sources in contemporary architectural discourse. Presentation and examination of sketches, paintings, still photographs, and film clips as well as writings by directors, set designers, critics, and architects (Eisenstein, Reimann, Kracauer, Bunuel and many others). Fall HIAA0900 S01 14688 Th 1:00-2:20(10) (D. Neumann)

HIAA 1150. Velázquez. This course will study the great Spanish artists El Greco and Velázquez in relation to the major developments in 16th- and 17th-century European painting and in the context of the social, political, and intellectual concerns of Habsburg Spain, as well as the particular cultural milieu in which they each worked. We will trace El Greco’s career from his native Crete to Venice and Rome and finally to Toledo, and Velázquez’s from the commercial metropolis of Seville to the court in Madrid. In addition, we will examine their modern reception by art historians, artists, and collectors in Spain and beyond. Spr HIAA1150C S01 25938 F 3:00-5:30(15) (L. Bass)

HIAA 1181. Prefabrication and Architecture. Architects have been captivated by prefabrication since the Industrial Revolution revealed the benefits of mechanized human labor. This undergraduate seminar will examine the provenance and relevance of prefabrication. We will consider the prefabricated traditions of Africa and Asia as the foundation for the discipline of ‘vernacular architecture’; and conceptualize prefab as a technology of colonial expansion, solution to the postwar housing crisis, expression of 1960s counterculture, and response to climate change. Case studies will be drawn from Africa, Australia, Asia, Europe, and North America. WRIT Spr HIAA1181 S01 26112 Th 4:00-6:30(17) (I. Osayimwese)

HIAA 1300F. The Archaeology of College Hill (ARCH 1900). Interested students must register for ARCH 1900. Fall HIAA1300F S01 16395 Arranged 'To Be Arranged'

HIAA 1300J. Fieldwork in the Urban Community (URBN 1000). Interested students must register for URBN 1000. Spr HIAA1300J S01 25914 Arranged 'To Be Arranged'

HIAA 1300K. The United States Metropolis, 1945-2000 (URBN 1200). Interested students must register for URBN 1200. Spr HIAA1300K S01 25915 Arranged 'To Be Arranged'


HIAA 1300X. Planning Sustainable Cities (URBN 1220). Interested students must register for URBN 1220. Fall HIAA1300X S01 16863 Arranged 'To Be Arranged'

HIAA 1301. The Palaces of Ancient Rome. This seminar addresses the palatial art and architecture of the ancient Roman Empire. Key themes include the architectural articulation of political power; the role of international relations in expressing cultural power; the interplay of influence among palaces and villas; the art of adornment, luxury, and collecting; the interaction of architecture and landscape, including interior gardens and urban environments; the critical analysis of archaeological evidence, reconstruction, and legacy. A WRIT Fall HIAA1301 S01 16848 T 4:00-6:30(18) (A. Chen)

HIAA 1440B. The Medieval Monastery. The seminar examines the medieval and early modern monastery as a research problem. The course examines the development of the monastery, and investigates the religious and functional aspects of monastic architecture. We will explore historical, art historical and archaeological approaches to monasticism. Instructor permission required. Enrollment limited to 12. Spr HIAA1440B S01 25134 W 3:00-5:30(14) (S. Bonde)
HIAA 1600I. Collections and Visual Knowledge in Early Modern Europe: 1400-1800.
Examines the ways in which collections organized and developed new kinds of knowledge and practices. Collections were decisive in the formation of art, history, science, religion, politics, and international relations. We will discuss the rationales behind these different kinds of collections, the order in which things were placed, the visual organization and architecture that created the first museums, and the economics of collections. Attention to the collections of kings, artists, natural scientists, middle class citizens, humanists, and the devout will provide examples from a wide variety of perspectives. Enrollment limited to 20.
Spr HIAA1600I S01 25855 Th 4:00-6:30(17) (J. Muller)

HIAA 1850E. Architecture, Light and Urban Screens.
This seminar explores the history, theory and practice of architectural illumination and the notion of electric light as a "building material." We will also consider the current interest in urban screens and media facades. The course will follow a historic trajectory from ca. 1900 to the present and will introduce the students to the most important techniques, protagonists and critical debates over the past 100 years. We will critically examine the broader implications of lighting design, the tension between luminous advertising and architectural illumination, the relationship to stage lighting, the implications of a "nocturnal modernity" and the use of light for propaganda purposes. Enrollment limited to 20. Instructor permission required. A
Fall HIAA1850E S01 25881 M 3:00-5:30(13) (D. Neumann)

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. Depending on the approval of a GELT grant, one section of the course will be taught in Berlin during spring break. There we would meet with local architects, politicians and artists to discuss the city's engagement with its dramatic past. WRIT
Fall HIAA1850H S01 26113 M 3:00-5:30(13) (D. Neumann)

HIAA 1870B. SoCal: Art in Los Angeles, 1945 to the Present.
Recent exhibitions, scholarship and media have turned to Los Angeles as a site of exploration of both American art and the larger frameworks of the Americas and international contemporary art. The character of media is directly connected to the circumstances of Los Angeles as a creative community built around an industry of visuality (film). This undergraduate seminar will examine postwar architecture, exhibitions, installation, land art, painting, performance, photography, public art and sculpture in Los Angeles and its impact on art history. This course may be open to a limited number of graduate students. WRIT
Fall HIAA1870B S01 16020 M 3:00-5:30(15) (C. Martin)

HIAA 1910A. Providence Architecture.
Seminar examining selected aspects of the architecture of downtown Providence from the late 19th century to the present. Projects require research at local archives, libraries, and architectural drawings collections. Instructor permission required. A
Fall HIAA1910A S01 16234 W 3:00-5:30(17) (D. Neumann)

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 2050A. Architectural History's Future.
Through readings of new, cutting edge texts, this graduate seminar will reconsider how we write and teach architectural history. We will explore provocative recent frameworks such as the "global," the shift from considering objects to thinking about processes, systems, networks, institutions etc. Our goal is to develop a self-reflexive praxis as historians, teachers, designers, and cultural workers.
Fall HIAA2050A S01 16571 M 3:00-5:30(15) (L. Osayimwesse)

HIAA 2440B. The Medieval Monastery.
The seminar examines the medieval and early modern monastery as a research problem. The course examines the development of the monastery, and investigates the religious and functional aspects of monastic architecture. We will explore historical, art historical and archaeological approaches to monasticism. Instructor permission required.
Enrollment limited to 12.
HIAA 2440B S01 26071 W 3:00-5:30(14) (S. Bonde)

HIAA 2450. Exchange Scholar Program.
Fall HIAA2450 S01 14417 Arranged 'To Be Arranged'

The goal of this seminar is to assemble a comparative body of material and ideas about the strategies and practices Europeans employed to persuade, convert, trade with, understand, and dominate the varied indigenous peoples of Asia, Africa, and the Americas with whom they established relations. My own work is centered in visual communications and the Jesuit global strategy of accommodation. But interest in questions of rhetoric, classification, translation, adaptation of rituals, and political analysis as applied by the Dutch, French, Franciscans, and other Europeans, also are intrinsic to the project, and would be welcomed.
Fall HIAA2601 S01 16572 Th 4:00-6:30(02) (J. Muller)

HIAA 2801. Art After India.
In the nineties, South Asian artists came to prominence by way of international exhibitions and the constellation of artists, collectors and galleries in Delhi invested in the art of the sub-continent's diaspora. This seminar will begin with the development of modernism in art after Partition (1947) and will track the emergence of large-scale nationally-themed exhibitions and the contemporary art market for South-Asian art. A range of artists of the South Asian diaspora will be considered.
Fall HIAA2801 S01 25890 F 3:00-5:30(15) (C. Martin)

HIAA 2920. Methods of Research and Art Historical Interpretation.
Required of first-year and second year history of art and architecture A.M./Ph.D. students. Enrollment limited to 20. Instructor permission required.
Fall HIAA2920 S01 14899 W 3:00-5:30(17) (E. Lincoln)

HIAA 2940. Master's Qualifying Paper Preparation.
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2970. Preliminary Examination Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for their doctoral examination.
Fall HIAA2970 S01 14418 Arranged 'To Be Arranged'
Spr HIAA2970 S01 23787 Arranged 'To Be Arranged'

HIAA 2980. Individual Reading (Single Credit).
Single credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2981. Individual Reading (Double Credit).
Double credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

HIAA 2982. Individual Reading for the Doctoral Candidate.
Single Credit. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
HIAA 2990. Thesis Preparation.
For graduate students who are preparing a thesis and who have met the tuition requirement and are paying the Registration Fee to continue active enrollment.
Fall HIAA2990 S01 14419 Arranged "To Be Arranged"
Spr HIAA2990 S01 23788 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 14420 Arranged "To Be Arranged"
Spr HIAA2991 S01 23789 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.

International Relations

INTL 1440. Ethnicity and Inequality in Global Persepectives.
Drawing on literature in sociology, politics, international relations, economics, and development studies, this course will critically examine the institutions, beliefs, ideas and practices that have engendered ethnic inequality in many parts of the world. Our aim is to help students gain a deeper understanding of how ethnicity, identity and religion interact with the institutions of modern societies so as to produce sustained social and economic disparity along group lines. Another goal is to gain an understanding of how ethnic inequality within countries can translate into global threats.
Fall INTL1440 S01 16462 TTh 1:00-2:20(10) (P. Agupusi)

This course reviews modern history through the study of invasions, coups, and other interventions carried out by the United States. From the Marine assault on Tripoli in 1805 to the bombing of Tripoli in 2011, there have been scores of these episodes. They have shaped American history and the history of the wider world. We examine a variety of them, and try to answer three questions about each one. (1) Why did the United States decide to carry out a particular intervention? (2) How was the intervention executed? (3) What have been its long-term effects?
Fall INTL1443 S01 16460 TTh 9:00-10:20(08) (S. Kinzer)

INTL 1444. Comparative Development (SOC 1600).
Interested students must register for SOC 1600.
Fall INTL1444 S01 16448 Arranged "To Be Arranged"

INTL 1445. International Political Economy (POLS 1730).
Interested students must register for POLS 1730.
Fall INTL1445 S01 16446 Arranged "To Be Arranged"

INTL 1446. Political Research Methods (POLS 1600).
Interested students must register for POLS 1600.
Spr INTL1446 S01 25738 Arranged "To Be Arranged"

INTL 1700. International Law.
This introduction to public international law covers the nature of legal reasoning in international relations, the interplay of international law and international politics, and the international legal process. Examines selected substantive fields such as state responsibility, the use of force, international human rights, and the U.S. and international law.
Fall INTL1700 S01 16369 TTh 2:30-3:50(11) (A. Becker)

This course introduces the politics and economics of globalization and, in particular, the spectacular rise of the Asian economies and their impact on the global economy, financial markets, and the balance of power. Course goals are: First, examine the key problems rapidly developing nations have faced, and continue to struggle with, in an interdependent world economy, and why some nations have succeeded in moving into a period of unprecedented growth. Second, analyze how the rise of the Asian economies will affect the U.S. and other developed nations. Enrollment limited to 20 juniors & seniors. Priority given to IR seniors. WRIT Fall INTL1801M S01 16368 W 3:00-5:30(17) (D. Wyss)

INTL 1802G. Reading Global: International Relations through Fiction.
"Any book thoughtfully read sharpens the mind and improves on an individual’s professional potential." So declared U.S. General James Amos when he reinvented the Marine Commandant’s reading list in October 2012. This capstone course is designed in a similar spirit for Brown IR students, built around 20th century works of fiction from around the world which won recognition for the insights they offer on core issues in international relations and development studies. Enrollment limited to 20 juniors and seniors. Priority given to IR seniors. WRIT Fall INTL1802G S01 16343 M 3:00-5:30(15) (K. Brown)

INTL 1802O. Global Corporate Accountability: Issues of Governance, Responsibility and NGOs.
How does the international system hold corporations accountable? As the global value chain engages increasingly greater sections of the economy, how do we understand the role of corporations in shaping the ethical and political issues of environment, human rights, labor conditions, equality and opportunity, gender, and community rights. Enrollment limited to 20 juniors & seniors. Priority given to IR seniors. WRIT Fall INTL1802O S01 16349 T 4:00-6:30(18) (P. Gourevitch)

INTL 1802Q. Iran and the Islamic Revolution.
Shattering events of 1978-80 in Iran unfolded against the backdrop of the previous decades of Iranian history, knowing that history is essential for understanding the revolution. The revolution cannot be appreciated without studying the enormous effects it’s had over the last 35 years. This course places the anti-Shah movement and the rise of religious power in the context of Iran’s century of modern history. We conclude by focusing on today’s Iran, the upheaval following the 2009 election, reformist president election in 2013, and prospects for reconciliation with the US. Enrollment limited to 20 juniors & seniors. Priority given to IR seniors. WRIT Fall INTL1802Q S02 16461 W 3:00-5:30(17) (S. Kinzer)

INTL 1802R. After Snowden: Spying in International Relations.
This course examines the special problems of surveillance and spying for democratic societies, with a particular focus on the United States and its experience as the world’s oldest constitutional democracy administering the world’s most pervasive intelligence apparatus. Enrollment limited to 20 juniors & seniors. Priority given to IR seniors. WRIT Fall INTL1802R S01 16464 M 3:00-5:30(15) (T. Edgar)

INTL 1802S. Politics of International Finance.
The purpose of this course is to present the fundamental variables that shape modern international finance. We will introduce and examine the technical forces that determine international transactions and capital flows, as well as the problems caused by unsustainable imbalances and the subsequent domestic and international political responses. Given the important role that finance plays in international relations, the material will allow the student to establish a conceptual framework to understand the political dynamics and constraints of the global economy. Enrollment limited to 20 juniors & seniors. Priority given to IR seniors. WRIT Fall INTL1802S S01 16701 F 3:00-5:30(14) (W. Molano)

INTL 1802T. Nuclear Weapons and International Politics (POLS 1822A).
Interested students must register for POLS 1822A.
Fall INTL1802T S01 16489 Arranged "To Be Arranged"

INTL 1802U. International Relations of Russia.
This class provides students with an overview of the sources of contemporary Russian foreign policy (including the legacies bequeathed by the Soviet Union) and from there examines Russia’s position in the international system, the challenges she faces in the global environment of the 21st century, and her relationships with the great powers and with her immediate neighbors. WRIT Fall INTL1802U S01 16705 Th 4:00-6:30(02) (N. Gvosdev)

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

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

**INTL 1802W. International Journalism: Foreign Reporting in Practice.**
Objective: give juniors and seniors direct experience with the job of being a foreign correspondent. Classes focus on two themes—the practice of international journalism and the history and contemporary reality of Nicaragua. Seminar includes reporting trip to Nicaragua during spring break. The seminar is valuable to two types of students—those interested in a career in international journalism and students who are not pursuing a career in journalism but who want to learn journalistic skills. Many fields need people who know how to research, conduct interviews, distill information, and write clearly. This is especially important to careers that involve international work. WRT

**INTL 1910. Senior Honors Seminar.**
Open only to senior students accepted into the honors program in international relations. Instructor permission required. WRT

**INTL 1920. Senior Honors Thesis.**
Open only to Senior students accepted into the honors program in international relations. Instructor permission required. WRT

**INTL 1970. Individual Research Project.**
Limited to juniors and seniors. Section numbers vary by instructor.

**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.

**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.

**ITAL 0200. Elementary Italian.**
See Elementary Italian (ITAL 0100) for course description.

**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.

**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.

**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.

**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.

**ITAL 0950. Introduction to Italian Cinema: Italian Film and History.**
How do we visualize the past? How has cinema influenced our understanding of contemporary history? The course will focus on how key moments of 20th-century History (Fascism, WWII, the Mafia and

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

Invented in the late 18th-century, the Panorama was a wildly popular ‘vision machine’ that became the model for many later attractions from theme park rides to pavilions at world’s fairs and immersive educational spectacles like IMAX movies. In this course, we will use 21st-century vision technology to study the power of optical media in the shaping of 19th-century “virtual reality,” focusing in particular on the Garibaldi panorama, a 270-foot-long painted scroll made in England in 1860, belonging to the Brown library (http://library.brown.edu/cds/garibaldi/).

ITAL 1350A. Italian Mysteries and the New Italian Epic.
"New Italian Epic" describes a body of literary works published in Italy between 1993 and 2010. Blending fiction and non-fiction, many of these works investigate shady aspects of Italian history and society, such as organized crime and political corruption. The term has also been applied to cinematic works such as Garrone’s film Gomorrah (based on Saviano’s best seller of the same name) and other multi-media hybrids such as TV series and “narrative theatre.” We will explore this textual/visual mini-corpus, within the context of the Berlusconi era. Taught in Italian.

ITAL 1390. Modern Italy.
Examination of Italian society, culture, and politics over the past two centuries. Topics include: the struggle to unify Italy in the 19th Century; the creation of a national identity; the political role of the Catholic Church; changing family life and gender relations; conflict between North and South; Mussolini and the fascist venetennio; and the struggle for political stability over the past 50 years.

ITAL 1400P. The Southern Question and the Colonial Mediterranean.
This course examines Antonio Gramsci’s interpretation of the Southern Question (quistione) in an attempt to better understand the politics and culture informing the colonial Middle East. Through an analysis of Gramsci’s critique of Southernism –the representation of Southern Italy as a semi-barbarous territory inhabited by “biologically inferior beings”– and his sociological description of pre-War World II Italy, we will acquaint ourselves with some of the key-concepts characterizing his political thought. Next, we will examine how critics of European colonialism in the Mediterranean have adopted this rich epistemological and analytical vocabulary. DPLL LILE WRIT

ITAL 1580. Word, Image and Power in Renaissance Italy.
This class is designed to introduce cultural and historical perspectives on Italy from Siena in the Middle Ages to Venice in the High Renaissance. Taught by professors of Italian Literature, Art History and History, we will move across Italy and the centuries focusing on monuments of literature, art, architecture, and history through different disciplinary lenses. WRIT

ITAL 1920. Independent Study Project (Undergraduate).
Undergraduate Independent Study supervised by a member of the Italian Studies Faculty. Students may pursue independent research in order to prepare for their honors thesis or honors multimedia project, or they may enroll in the course in order to work individually with a faculty member on a specific area of Italian Studies not covered in the current course offerings. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ITAL 1990. Senior Conference.
Special work or preparation of an honors thesis under the direction of a member of the staff. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

ITAL 2050. Microhistory.
Italian historians pioneered a methodology called "microhistory," emphasizing the importance of interpreting seemingly insignificant details in order to understand individuals for whom we typically have little information. We will examine some classic examples of this genre, alongside debates about the method. Students should pursue their own geographic and disciplinary interests in the final assignment by writing a microhistory.

ITAL 2450. Exchange Scholar Program.
Fall ITAL2450 S01 14426 Arranged 'To Be Arranged'
Spr ITAL2450 S01 23795 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.

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.

ITAL 2980. Reading and Research.
Courses on special subjects individually planned and supervised. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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

Judaic Studies

JUDS 0050A. Believers, Agnostics, and Atheists in Contemporary Fiction.
Contemporary society is divided over issues of religious faith. In recent decades there has been a resurgence of religious faith, while at the same time many have been skeptical and even hostile to religious belief and practice. Others are just not sure what to believe. In this seminar, we will read and discuss contemporary short stories that explore the ways that these ongoing differences over spiritual matters affect people. These works portray a variety of human situations: the affirmation and rejection of religious faith, confusion over the existence and nature of God, and positive and negative views of religious institutions and the clergy who lead them. Writers of both Christian and Jewish background will be studied. Enrollment limited to 20 first year students. FYS WRIT

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
JUDS 050H. Israel's Wars.
Israel's history has unfolded under the shadow of its prolonged conflict with the Palestinians and its Arab neighbors. This first year seminar will survey the military aspect of this conflict. The major aim of the course is to present an historical survey of the Israeli-Arab wars and Jewish-Palestinian encounters in the 20th century. This will provide some of the necessary background for understanding the present phase of the Arab-Israeli conflict in the Middle East, and help in comprehending the roots and causes of contemporary controversies between Israel and the Palestinians and/or its Arab neighboring states. Enrollment limited to 20 first year students. FYS
Fall JUDS050H S01 16636 TTh 2:30-3:50(11) (R. Rojanski)

JUDS 0100. Elementary Hebrew.
An introduction to the skills of reading, writing, and conversing in contemporary Israeli Hebrew. Students also read Hebrew texts adapted for their level of Hebrew based on biblical, rabbinic, and modern Hebrew literature, which introduce them to the approaches of Hebrew writers in various periods and to a variety of cultural issues. If registration is closed, please contact the professor and a wait list will be created. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special permission. Enrollment limited to 20.
Fall JUDS0100 S01 15094 MWF 11:00-11:50(04) (R. Adler Ben Yehuda)
Fall JUDS0100 S01 15094 TTh 10:30-11:50(04) (R. Adler Ben Yehuda)

JUDS 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: JUDS 0100. Students must have taken JUDS 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 JUDS0200 S01 24794 MWF 11:00-11:50(04) (R. Adler Ben Yehuda)
Spr JUDS0200 S01 24794 TTh 10:30-11:50(04) (R. Adler Ben Yehuda)

Develops the skills of reading, writing, and conversing in contemporary Israeli Hebrew at the intermediate level and of reading Hebrew texts of the biblical, rabbinic, and modern periods (biblical stories, rabbinic legends, modern Hebrew poems, stories, essays, newspaper articles). Discussions and compositions focus on the psychological, cultural, political, and social issues reflected in the Hebrew sources that we study. Prerequisite: JUDS 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 JUDS0300 S01 15101 MTWThF 12:00-12:50(12) (R. Adler Ben Yehuda)

Develops the skills of reading, writing, and conversing in contemporary Israeli Hebrew at the intermediate level and of reading Hebrew texts of the biblical, rabbinic, and modern periods (biblical stories, rabbinic legends, modern Hebrew poems, stories, essays, newspaper articles). Discussions and compositions focus on the psychological, cultural, political, and social issues reflected in the Hebrew sources that we study. Prerequisite: JUDS 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 JUDS0400 S01 24804 TTh 12:00-12:50(05) (R. Adler Ben Yehuda)
Spr JUDS0400 S01 24804 MWF 12:00-12:50(05) (R. Adler Ben Yehuda)

JUDS 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: JUDS 0400 or equivalent. Enrollment limited to 20.
Fall JUDS0500 S01 15092 TTh 9:00-10:20(08) (R. Adler Ben Yehuda)

JUDS 0600. Issues in Contemporary Israeli Society, Politics, and Culture in Hebrew.
An exploration of current issues in contemporary Israeli society, politics, and culture; the Israeli-Palestinian conflict, tensions between ultra-orthodox and secular Jews, religion and state, Israel as a Jewish and democratic state, the economic gap between rich and poor, the integration of citizens from a variety of backgrounds (Jews of Middle Eastern, North African, Russian, and Ethiopian origin; Arab citizens of Israel), gender relations. Sources include films, television programs, Internet news, works of literature. Conducted in Hebrew. Emphasizes strengthening Hebrew reading, writing, and speaking skills. Prerequisite: JUDS 0500. Students who have not taken JUDS 0500 should see instructor for permission to enroll.
Spr JUDS0600 S01 25500 MWF 10:00-10:50(03) (D. Jacobson)

A survey of classic Jewish texts, from the Bible to modern literature. Each text will be discussed from the perspective of both its own historical and social context and its engagement with earlier ones. Attention will be paid on how these authors address perennial issues of human concern and how their answers are shaped by their experience as Jews. WRIT Fall JUDS0681 S01 15105 W 3:00-5:30(17) (M. Satlow)

JUDS 0682. How Bible Became Holy (RELS 0325).
Interested students must register for RELS 0325.
Spr JUDS0682 S01 25714 Arranged 'To Be Arranged'

JUDS 0830. The Bible as Literature.
Explores how methods of literary analysis can be applied to the reading of narratives of the Old Testament/Hebrew Bible (in English translation). Also compares the ways that modern writers have transformed biblical stories into new interpretive literary works. For students interested in an introduction to the Bible, as well as students with a knowledge of the Bible who want to deepen their understanding of biblical narratives and investigate the influence of the Bible on modern literature. All readings in English.
Fall JUDS0830 S01 15097 MWF 11:00-11:50(04) (D. Jacobson)

JUDS 1612. Adam and Eve in Early Jewish and Christian Interpretation.
In antiquity, the biblical story of Adam and Eve generated an enormous volume of commentary. Early Jews and Christians saw in this story profound lessons about the nature of humanity, God, and the world. We will examine how, in antiquity, both religious groups interpreted this relatively short story. We will also pay close attention to the different ways that both Jews and Christians developed to interpret these texts. Genres such as allegory, inspired interpretation (pesher), midrash, and the letters of the New Testament will be covered.
Spr JUDS1612 S01 24805 M 3:00-5:30(13) (M. Satlow)

JUDS 1615. The Archaeology of Palestine.
Palestine constitutes one of the most important archaeological regions connected to the origins of Judaism, Christianity and Islam. In this class we will examine the material remains of the region beginning in pre-historic times until the end of the Ottoman period in 1917. Literary sources as well as the more recent scholarly debates and discoveries help us understand the material remains of the relevant periods. WRIT Spr JUDS1615 S01 24806 T 4:00-6:30(16) (K. Galor)

JUDS 1635. Biblical History: What Really Happened?
Topics of recent and current debate among specialists in the field of Israelite history. Problems include (1) the historicity of the patriarchs and matriarchs; (2) the historical evidence relevant to the question of an exodus; (3) the nature of Israel's settlement in Canaan; (4) the 10th century, era of empire or literary fiction? (5) the land of Judah after the Babylonian conquest. Enrollment limited to 20.
JUDS 1635. Ancient Synagogues, Churches, and Mosques in Palestine. Reviews the discoveries and related scholarship of ancient synagogues, churches, and mosques in ancient Palestine. Focuses on their architectural and decorative as well as their spiritual and religious characteristics, and examines how those institutions influenced each other throughout their history of development. WRIT

JUDS 1670. Ancient Synagogues, Churches, and Mosques in Palestine. Reviews the discoveries and related scholarship of ancient synagogues, churches, and mosques in ancient Palestine. Focuses on their architectural and decorative as well as their spiritual and religious characteristics, and examines how those institutions influenced each other throughout their history of development. WRIT

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 eleventh century until after the Holocaust. It was the basis for a transnational Jewish culture and literature, and it played a central role in modern Jewish political life. We will explore the history of Yiddish culture and the development of the Yiddish press, literature, and cinema. The connection between Yiddish and modern Jewish politics will also be discussed. Students in the course will also have the opportunity to develop a basic knowledge of the Yiddish language.

JUDS 1717. American Jews and Israel: From AIPAC to J Street. This course will explore the development of Jewish politics in the US during the 20th and 21st centuries. Beginning with the development of American Jewish political life before the Holocaust, we will focus primarily on the place of the State of Israel in the shifting terrain of communal politics. Topics for discussion will include the organizations that were founded in connection with Israel, the political views and movements that emerged in reaction to the Israeli-Palestinian conflict, and on-going struggles on American campuses to mediate this relationship.

JUDS 1718. Modernity, Jews, and Urban Identities in Central Europe. The course will explore the distinct cultural identities that Jewish modernist intellectuals like Walter Benjamin, Gershom Scholem, Sigmund Freud, Franz Kafka and Karl Kraus forged for themselves in response to the conflicting challenges of assimilation, anti-semitism and modernization. Readings will be based on primary sources and special emphasis will be placed on the historical contexts of Berlin, Vienna, Budapest and Prague where these thinkers lived their lives. DPPL LILE WRIT

JUDS 1722. Money, Power, Sex and Love: The Modern Jewish Family in Europe and America. What roles did the family play in modern Jewish society and how did Jewish women participate in them? These questions are at the heart of this seminar. Through discussions of primary sources (in translation) and modern research, we will use the tools of gender analysis to examine the history of the Jewish family from the mid-seventeenth century until today. Topics discussed include: Jewish law and the family, women and the politics of the family economy, sex and the erotic, women’s spirituality, the bourgeois Jewish family in imperial Germany, Jewish family life before the Holocaust, and intermarriage in the contemporary USA. WRIT

JUDS 1752. Zionists Anti Zionists and Post Zionists: Jewish Controversies in the 20th Century. In Jewish historical memory, Zionism is seen as the dominant Jewish national ideology throughout the 20th century. However, emerging in 1987, the Zionist movement aroused significant Jewish opposition. Many different Jewish ideologies developed, ranging from non-Zionism to anti-Zionism. This course will discuss the different arguments used by both Zionists and their opponents. We will look at the various options: Zionism, Diaspora Nationalism, Socialism and Communism, and Reform Judaism (before 1967), as well as Israeli Zionism and the opposition it aroused from Post-Zionists. Our focal question will be: why did Zionism evoke so much opposition among different Jewish groups? DPPL LJLE WRIT

JUDS 1970. 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.

JUDS 1975. Honors Thesis Semester I. First of two semesters working with a faculty member in the Program in Judaic Studies to complete an honors thesis. Instructor permission required. LILE

JUDS 1976. Honors Thesis Semester II. Second of two semesters working with a faculty member in the Program in Judaic Studies to complete an honors thesis. Instructor permission required. LILE

JUDS 2450. Exchange Scholar Program.
not covered in previous courses. Prerequisite: ASL IV (SIGN 0400) or equivalent.

Fall SIGN0500 S01 14651 TTh 1:00-2:20(10) (T. Riker)
SIGN 1910. Independent Study in Sign Language/Deaf Studies. Independent study in an area of special interest to the student, with close guidance by a member of the faculty, and leading to a major paper/project. Required of candidates for honors, and recommended for third year students. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Prerequisite: SIGN 0500 or instructor permission. DPLL LILE

Arabic

ARAB 0100. First-Year Arabic.
Builds basic listening, speaking, reading, and writing skills, introducing the Arabic language in its cultural environment. Six contact hours per week, with an emphasis on grammar and communication, plus written, audio, and video assignments outside of class. 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.

Fall ARAB0100 S01 14926 TTh 9:00-10:20(15) (M. Christoff)
Fall ARAB0100 S01 14926 MWF 10:00-11:50(15) (M. Christoff)
Fall ARAB0100 S02 14927 TTh 2:30-3:50(15) (A. Hassan)
Fall ARAB0100 S03 14928 TTh 10:30-11:50(15) (A. Hassan)
Fall ARAB0100 S04 14929 MWF 1:00-2:20(15) (A. Hassan)

ARAB 0200. First-Year Arabic.
Builds listening, speaking, reading, and writing skills at the low intermediate level of Arabic proficiency. Six contact hours per week, with an emphasis on grammar and communication, plus written, audio, and video assignments outside of class. This is the second half of a year-long course. Students must have taken ARAB 0100 to receive credit for this course. If ARAB 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing. Enrollment limited to 18.

Spr ARAB0200 S01 24253 MWF 9:00-9:50(02) 'To Be Arranged'
Spr ARAB0200 S01 24253 TTh 9:00-10:20(02) 'To Be Arranged'
Spr ARAB0200 S02 24254 TTh 2:00-3:20(07) (A. Hassan)
Spr ARAB0200 S03 24255 TTh 10:30-11:50(04) (A. Hassan)
Spr ARAB0200 S04 24255 MWF 11:00-11:50(04) (A. Hassan)

ARAB 0210. Egyptian Arabic.
This course will introduce students to one of the major colloquial variants of contemporary Arabic. The native language of Egyptian citizens, used predominantly in everyday communication, has long since become widely understood throughout the Arab world, since popularized by the media and pop culture. The beginning oral proficiency that students will acquire in this course, by examining a range of sources, from textbooks to short stories, movies, social media posts and personal accounts by guest-speakers, and by practicing conversation in class, will facilitate their communication with native speakers of Arabic in a variety of informal situations. Prerequisite: ARAB 200.

Spr ARAB0210 S01 24250 Arranged(10) (A. Hassan)

ARAB 0300. Second-Year Arabic.
Develops listening, speaking, reading and writing skills at the intermediate level of language proficiency through extensive use of various texts and multimedia. Promotes a better understanding of the Arabic cultural traditions. Six contact hours weekly, plus written, audio, and video assignments outside of class. Prerequisite: ARAB 0200. This is the first half of a year-long course whose first semester grade is normally a temporary one. Neither semester may be elected independently without special written permission. The final grade at the end of the course work in ARAB 0400 covers the entire year and is recorded as the final grade for both semesters. If course is full, please sign the wait list in Room 205, 195 Angell Street.

Fall ARAB0300 S01 14931 MWF 10:00-10:50(18) (M. Christoff)
Fall ARAB0300 S01 14931 TTh 10:30-11:50(18) (M. Christoff)
Fall ARAB0300 S02 14932 MWF 1:00-1:50(18) (M. Faiza)
Fall ARAB0300 S02 14932 TTh 1:00-2:20(18) (M. Faiza)

ARAB 0400. Second-Year Arabic.
Develops listening, speaking, reading and writing skills at the intermediate level of language proficiency through extensive use of various texts and multimedia. Promotes a better understanding of the Arabic cultural traditions. Six contact hours weekly, plus written, audio, and video assignments outside of class. Prerequisite: ARAB 0300. This is the second half of a year-long course. Students must have taken ARAB 0300 to receive credit for this course. If ARAB 0300 was taken for credit, then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing. Enrollment limited to 18.

Spr ARAB0400 S01 24251 MWF 10:00-10:50(03) 'To Be Arranged'
Spr ARAB0400 S01 24251 TTh 10:30-11:50(03) 'To Be Arranged'
Spr ARAB0400 S02 24252 MWF 1:00-1:50(06) (M. Faiza)
Spr ARAB0400 S02 24252 TTh 1:00-2:20(06) (M. Faiza)

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. Five contact hours weekly. Prerequisite: ARAB 0400.

Fall ARAB0500 S01 14935 MWF 12:00-12:50(12) (M. Faiza)
Fall ARAB0500 S01 14935 MWF 12:00-12:50(12) (M. Faiza)

ARAB 0600. Third-Year Arabic.
Offers comprehensive training in listening, speaking, reading, and writing, with grammar review as needed. Broadens students’ perspective of Arabic culture with selections from the classical and modern traditions of Arabic writing and various art forms. Five contact hours weekly. Prerequisite: ARAB 0500.

Spr ARAB0600 S01 24674 TTh 12:00-12:50(05) (M. Faiza)
Spr ARAB0600 S01 24674 MWF 12:00-12:50(05) (M. Faiza)

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.

Fall ARAB0700 S01 14937 MWF 12:00-1:30(12) (M. Christoff)

ARAB 0800. Fourth-Year Arabic.
Builds advanced Arabic competence, using communicative approaches to the learning of content, function, and accuracy. Guided reading, writing and research. Three contact hours weekly. Prerequisite: ARAB 0700.

Spr ARAB0800 S01 24673 MWF 12:00-1:30(05) (M. Christoff)

ARAB 1990. Special Topics in Arabic Language, Literature, and Culture.
Advanced level integrated skill course focusing on specific reading and writing topics derived from the traditions and arts of the Arabic language. Course prerequisites include advanced capacity in Arabic grammar and reading comprehension. Enrollment limited to 10.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Catalan
An open content course, which may be offered each semester. Offered as an Independent Study, this course will be adapted to students’ needs that are not currently covered by our curricular offerings.

English for Internationals
EINT 2200. Academic Interactions
This course develops the English language skills of first-year international graduate students who are preparing to be teaching assistants. Students improve their fluency and expression of complex ideas in a variety of linguistic situations typical of classroom interactions. Students also increase their control of vocabulary, pronunciation and listening comprehension when communicating with American undergraduates. Instructor permission required.
Fall EINT2200 S01 14644 MWF 12:00-12:50(12) (M. Leuchak)
Spr EINT2200 S01 23965 MWF 12:00-12:50(05) (B. Gourlay)

EINT 2300. Negotiating an American Classroom.
In this course, international graduate students increase their abilities to communicate accurately and fluently in English with American undergraduates. International students develop their ability to interact, in culturally appropriate ways, in a variety of teaching situations common to an institution of higher education, where they are responsible for expressing and explaining complex information and ideas in English. Instructor permission required.
Fall EINT2300 S01 14645 MTWTh 9:00-9:50(16) (B. Gourlay)
Spr EINT2300 S01 23966 MTWTh 9:00-9:50(02) (B. Gourlay)

EINT 2400. Speaking Professionally for Internationals.
This course develops the English communication skills of international graduate students with an emphasis on intelligibility of speech and clarity of expression in a variety of teaching and professional situations (e.g. presenting material, responding to questions, directing discussions). Students develop increased facility of English in extended discourse when they are the authority in a teaching or other professional context. Instructor permission required.
Fall EINT2400 S01 14646 MW 9:00-9:50(09) (M. Leuchak)
Fall EINT2400 S02 14647 TTh 9:00-9:50(09) (M. Leuchak)
Spr EINT2400 S01 23967 MTWTh 9:00-9:50(13) (B. Gourlay)
Spr EINT2400 S02 23968 MTWTh 9:00-9:50(13) (B. Gourlay)

EINT 2500. Advanced Articulation Tutorial.
This course is an advanced pronunciation tutorial for international graduate students who have achieved a near-native speaker level of fluency in English, but who require greater precision of English articulations, pronunciation, fluency and/or expression. Instructor permission required.
Fall EINT2500 S01 14648 MTWTh 12:00-12:50(12) (B. Gourlay)
Spr EINT2500 S01 23969 MTWTh 12:00-12:50(05) (B. Gourlay)

Haitian-Creole
CROL 0100. Basic Haitian Creole.
Fast-paced course for beginners. Course stresses acquisition of skills in speaking and listening comprehension; writing included to a lesser degree. Strong emphasis on cultural as well as linguistic competency. Enrollment limited to 18. If the course is full, please sign the wait list in room 215, 111 Thayer Street.
Fall CROL0100 S01 15706 W 3:00-5:30(17) (P. Sylvain)
Fall CROL0100 S01 15706 M 3:00-5:30(17) (P. Sylvain)

CROL 0200. Early Intermediate Creole.
Fast-paced course for beginners. Course stresses acquisition of skills in speaking and listening comprehension; writing included to a lesser degree. Strong emphasis on cultural as well as linguistic competency. Enrollment limited to 18. Prerequisite: Beyond basic level of reading, writing and comprehension or having successfully completed CROL 0100. If the course is full, please sign the wait list in room 215, 111 Thayer Street.
Fall CROL0200 S01 15953 W 6:30-8:30PM(17) (P. Sylvain)
Spr CROL0200 S01 24951 M 3:00-5:30(13) (P. Sylvain)

CROL 0300. Advanced Intermediate Haitian Creole.
Fast-paced course for advanced/intermediate students of Haitian Creole. Designed for those who speak and understand Haitian Creole with some fluency but are seeking ways of perfecting their language skills, overcoming grammatical snags, increasing vocabulary, and mastering the idiomatic use of the language and proverbs. Reading and responding to authentic literature in Haitian Creole will be the focus of the course. Prerequisite: CROL 0200. Enrollment limited to 18. If course is full, please sign the wait list in Rm. 215, 111 Thayer Street.
Fall CROL0300 S01 15708 M 6:30-8:30PM(15) (P. Sylvain)
Spr CROL0300 S01 24959 W 3:00-5:30(14) (P. Sylvain)

CROL 0400. Advanced Haitian Creole.
Designed for those who wish to develop more advanced level conversational, reading, and writing skills. Students work with a variety of readings (stories, poems, plays), films, interviews, and popular songs that promote in-class discussion and written analysis. Extensive practice in translating from English to Haitian and vice versa, with the aim of developing accuracy, speed, and appropriateness (lexical, grammatical, and cultural). Prerequisite: CROL 0300. Enrollment limited to 20.
Spr CROL0400 S01 24960 W 6:30-8:30PM(14) (P. Sylvain)

Hindi-Urdu
HNDI 0100. Beginning Hindi or Urdu.
Introduces conversation, reading, and writing of modern standard Hindi and the Devanagari script. Those who already know Devanagari but have rusty conversation skills may join the class second semester; obtain instructor’s permission during the first semester. Those who prefer to learn Urdu and the Persian script should contact the instructor.
Fall HNDI0100 S01 14657 TTh 12:00-12:50(12) (A. Koul)
Fall HNDI0100 S01 14657 MWF 12:00-12:50(12) (A. Koul)

HNDI 0200. Beginning Hindi or Urdu.
Introduces conversation, reading, and writing of modern standard Hindi and the Devanagari script. Those who already know Devanagari but have rusty conversation skills may join the class second semester; obtain instructor’s permission during the first semester. Those who prefer to learn Urdu and the Persian script should contact the instructor. Prerequisite: HNDI 0100.
Spr HNDI0200 S01 24675 TTh 12:00-12:50(05) (A. Koul)
Spr HNDI0200 S01 24675 MWF 12:00-12:50(05) (A. Koul)

HNDI 0300. Intermediate Hindi-Urdu.
A continuation of HNDI 0100-0200, which is a prerequisite. Introduces the variation of the Arabic script used for Urdu. Prepares students to communicate in written and spoken language. Activities are conducted in Hindi/Urdu. Meets four hours weekly.
Fall HNDI0300 S01 16458 Th 4:00-4:50(06) (A. Koul)
Fall HNDI0300 S01 14658 MWF 1:00-1:50(06) (A. Koul)

HNDI 0400. Intermediate Hindi-Urdu.
A continuation of HNDI 0100-0200. Introduces the variation of the Persian script used for Urdu. Prepares students to communicate in written and spoken language. Activities are conducted in Hindi/Urdu. Meets four hours weekly. Prerequisite: HNDI 0300.
Spr HNDI0400 S01 24676 Th 4:00-4:50(06) (A. Koul)
Spr HNDI0400 S01 24676 MWF 1:00-1:50(06) (A. Koul)

HNDI 1080. Advanced Hindi-Urdu.
Each student follows an independent reading list determined in consultation with the instructor. The readings may include folk tales, journalistic prose, 20th-century literature, classical Urdu poetry of the 17th to 19th centuries, or subjects in nonfiction. The class meets together three hours weekly. Each student also spends one hour weekly with the instructor. Prerequisite: HNDI 0400.
Fall HNDI1080 S01 14659 Arranged (A. Koul)
Spr HNDI1080 S01 24677 Arranged (A. Koul)

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

PRSN 0100. Basic Persian.
Fast-paced course for beginners. Course stresses acquisition of Persian alphabet and basic grammatical patterns, beginning levels of speaking, listening, reading, and writing. Strong emphasis on the links between language and culture.
Fall PRSN0100 S01 14660 TTh 1:00-2:20(06) (I. Anvar)
Fall PRSN0100 S01 14660 MW 1:00-1:50(06) (I. Anvar)

PRSN 0200. Basic Persian.
Fast-paced course for beginners. Course stresses acquisition of Persian alphabet and basic grammatical patterns, beginning levels of speaking, listening, reading, and writing. Strong emphasis on the links between language and culture.
This is the second half of a year-long course. Students must have taken PRSN 0100 to receive credit for this course. If PRSN 0100 was taken for credit then this course must be taken for credit; if taken as an audit, this course must also be taken as an audit. Exceptions to this policy must be approved by both the academic department and the Committee on Academic Standing.
Spr PRSN0200 S01 24678 TTh 1:00-2:20(10) (I. Anvar)
Spr PRSN0200 S01 24678 MW 1:00-1:50(10) (I. Anvar)

PRSN 0300. Intermediate Persian Language and Culture.
Expands students' proficiency in modern Persian language and culture; develops listening, speaking, reading and writing skills at the intermediate level through various texts and multimedia. Prerequisite: PRSN 0200.
Fall PRSN0300 S01 14655 TTh 10:30-11:50(13) (I. Anvar)

Expands students' proficiency in modern Persian language and culture; develops listening, speaking, reading and writing skills at the intermediate level through various texts and multimedia. Prerequisite: PRSN 0300.
Spr PRSN0400 S01 24679 TTh 10:30-11:50(09) (I. Anvar)

PRSN 0500. Advanced Persian Language and Culture I.
For students who have completed PRSN 0400 or have acquired language skills above the intermediate level through contact with Persian in other ways. The main goal of this course is to improve speaking, listening, reading and writing skills and promote exposure to the culture. It will enable students to expand their knowledge of the language by studying samples of modern and classical Persian literature in order to advance toward mastery of contemporary literature. The course will motivate students to communicate both in written and spoken Persian by utilizing the adequate grammatical order and correct vocabulary. Prerequisite: PRSN 0400.
Fall PRSN0500 S01 14661 TTh 2:30-3:50(11) (I. 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 24680 TTh 2:30-3:50(11) (I. Anvar)

Turkish

TKSH 0100. Introduction to Turkish Language and Culture I.
This is a proficiency oriented introductory course to Turkish Language and Culture. It adopts and integrated skills approach and is designed for students with little or no prior knowledge of Turkish. The course combines an emphasis on the development of communicative competences with an understanding of language structures and grammar as well as insights into Modern Turkish society and culture. The aim is to introduce students to basic linguistic structures and develop the ability to comprehend and produce text, as well as to speak and understand speech, in a variety of contexts and registers. Enrollment limited to 18. DPLL
Fall TKSH0100 S01 16816 F 3:00-3:50(11) (E. Amanatidou)
Fall TKSH0100 S01 16816 TTh 2:30-3:50(11) (E. Amanatidou)

Latin American Studies

LAST 1501A. Exclusion, Gender and Respect: Understanding Youth Violence in Latin American Cities.
Urban crime and fear is perhaps the most important concern for Latin Americans in countries across the region such as Colombia, Brazil, Mexico, and Venezuela. In this course we will develop a thorough analysis of youth violence departing from the structural forces that drive youths to violent lifestyles. We will then pass through cultural dispositions associated with gender identities and the lived experience of violence, youth subjectivities and emotions expressed (such as the sense of hopelessness engendered by these experiences). Finally we will discuss the possibility of alternatives to violence for youths.
Fall LAST1501A S01 16838 TTh 9:00-10:20(08) (M. Zubillaga Gabaldon)

LAST 1510B. Environment and Development in Latin America.
This seminar introduces a “developmental challenges approach” to thinking about resource-based development. The approach is critically used to survey the development of extractive industries and other environmental issues in Latin America.
The main questions to be examined are:
- Is resource abundance a curse?
- Is Latin America too poor to be green?
- Do institutions end up defining these issues, and how?
Assignments will help students develop a research project to study one case or a set of cases in comparative perspective (countries or sub-national units).
Fall LAST1510B S01 16778 W 3:00-5:30(17) (J. Orihuela)

For Latin American Studies concentrators writing senior projects or honors theses.

For Latin American Studies concentrators writing senior projects or honors theses.

LAST XLIST. Courses of Interest to Students Concentrating in Latin American Studies.

Literary Arts

LITR 0100A. Introduction to Fiction.
A workshop for first year students, introducing them to the art of writing fiction. This course is reading and writing intensive. Enrollment limited to 17. S/NC required. FYS WRIT
Fall LITR0100A S01 16186 F 3:00-5:30(14) (A. Niedenthal)
Spr LITR0100A S01 25470 Th 5:00-7:20(17) "To Be Arranged"

LITR 0100B. Introduction to Poetry.
A workshop for first year students, introducing them to the art of writing poetry. This course is reading and writing intensive. Enrollment limited to 17. S/NC required. FYS WRIT
Fall LITR0100B S01 16187 Th 5:00-7:20(02) (B. Kasiarz)
Spr LITR0100B S01 25471 F 3:00-5:30(15) "To Be Arranged"

LITR 0110A. Fiction I.
A workshop for students who have little or no previous experience in writing fiction. Enrollment limited to 17 per section. This course is limited to undergraduates. S/NC. WRIT
Fall LITR0110A S01 15197 M 5:30-7:50(15) (R. Shaw)
Fall LITR0110A S02 15198 T 4:00-6:30(18) (O. Olsen)
Fall LITR0110A S03 15199 Th 5:00-7:20(05) (D. Bailey)
Fall LITR0110A S04 15217 F 3:00-5:30(14) (A. Gauss)
Spr LITR0110A S01 24490 M 5:30-7:50(13) "To Be Arranged"
Course Descriptions

LITR 0110B. Poetry I.
A workshop for students who have little or no previous experience in writing poetry. Enrollment limited to 17 per section. This course is limited to undergraduates. S/NC. WRIT
Fall LITR0110B S01 15200 T 4:00-6:30(18) (C. Capone)
Fall LITR0110B S02 15201 W 3:00-5:30(17) (D. Vogel)
Fall LITR0110B S03 15202 Th 5:00-7:20(02) (E. Means)
Fall LITR0110B S04 15203 F 3:00-5:30(14) (I. Błee)
Spr LITR0110B S01 24493 M 5:30-7:50(13) 'To Be Arranged'
Spr LITR0110B S02 24494 T 4:00-6:30(16) 'To Be Arranged'
Spr LITR0110B S03 24495 Th 5:00-7:20(17) 'To Be Arranged'

LITR 0110D. Digital Language Art I.
Project-oriented workshop for writers, visual/sound artists, filmmakers and programmers who wish to explore digital media techniques. No experience working in this field (or with computer programming) required. You’ll learn through doing, reading, talking and collaborating on works in various traditions. Enrollment limited to 17. S/NC. WRIT
Fall LITR0110D S01 15204 Th 12:00-2:20(10) (E. Milholland)

LITR 0110E. Screenwriting I.
A workshop for students who have little or no previous experience in writing screenplays. This course is limited to undergraduates. S/NC. Enrollment limited to 17. WRIT
Fall LITR0110E S01 15207 W 3:00-5:30(17) (H. Bizzi)
Spr LITR0110E S01 24496 M 3:00-5:30(13) (H. Bizzi)

LITR 0210A. Fiction Writing II.
Topics often include stylistic matters related to tone and point of view, and structural matters like controlling switches in time. See general course description above for course entry procedures for all intermediate workshops. Enrollment limited to 17. Instructor permission required. S/NC. WRIT
Fall LITR0210A S01 15208 M 3:00-5:30(15) (J. Schwartz)
Fall LITR0210A S02 15209 W 3:00-5:30(17) (J. Howard)
Spr LITR0210A S01 24497 T 4:00-6:30(16) (J. Howard)
Spr LITR0210A S02 24498 Th 5:00-7:20(17) 'To Be Arranged'

LITR 0210B. Poetry Writing II.
Emphasis is placed on verse strategies, meter, rhythm, imagery and rhyme. Writing includes frequent exercises in various poetic traditions. See general course description above for course entry procedures for all intermediate workshops. Written permission required. S/NC. WRIT
Fall LITR0210B S01 15211 T 4:00-6:30(16) (C. Schütler)
Spr LITR0210B S01 24536 Th 4:00-6:30(16) 'To Be Arranged'

LITR 0210D. Digital Language Art II.
Project-oriented workshop for writers, visual/sound artists, filmmakers, and programmers wishing to explore techniques for effective and innovative use of text in digital media. Topics include hypertext narrative, kinetic poetry, and recombinant and computer-generated texts. Collaboration encouraged. Work sample (writing, programming, website) due on first day of semester. Enrollment limited to 17. Instructor permission required. S/NC. WRIT
Spr LITR0210D S01 25751 T 12:00-2:20(10) 'To Be Arranged'

LITR 0310F. Visual Poetry.
This interdisciplinary workshop explores the visual possibilities of language. Considering the page as a starting point, we’ll create new works between writing and visual art. Through researching early writing systems, concrete poetry, asemic writing and contemporary works, students will gain a deeper understanding of their own practices. We’ll examine the works of Dieter Roth, Carl Andre, Sol Lewitt, Aram Saroyan, Kenneth Goldsmith, Rosmarie Waldrop and more. All visual media welcome. "[Blank space on a page means] freedom. The possibility of anything happening. Every mark on that paper is an interruption, an insertion into a kind of peace." -Susan Howe WRIT
Spr LITR0310F S01 25475 T 4:00-6:30(16) (F. Capone)

LITR 0510B. Into the Machine.
Starting from Turing’s work on artificial intelligence, we shall examine the cultural and artistic ramifications of the rise of the machine, using Marx and Walter Benjamin to provide a framework. We will look at how machines generate anxiety, with special emphasis on robots, puppets and automatons; and we shall also consider utopian and dystopian images of machines, and visions of near and distant futures. Finally we will look at authors who utilize machine models of operation to generate artistic work. Authors and filmmakers include: Capek, E. T.A. Hoffman, Asimov, Lem, Breton, Redon, Fritz Lang, Chaplin, Tatlin. Enrollment limited to 20 first year students. SYS
Spr LITR0510B S01 24507 Th 4:00-6:30(17) (J. Howard)

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 20 first year students. SYS WRIT
Fall LITR0710 S01 15216 TTh 2:30-3:50(11) (J. Howard)
Spr LITR0710 S01 24508 TTh 2:30-3:50(11) (F. Gander)

LITR 1010A. Advanced Fiction.
The writing of short stories or longer works in progress in regular installments, along with appropriate exercises and reading assignments. See general course description above for course entry procedures for all advanced workshops. Written permission required. S/NC. WRIT
Fall LITR1010A S01 15218 T 10:30-12:50(13) (F. Field)
Spr LITR1010A S02 15219 Th 10:30-12:50(13) (M. Steinbach)
Spr LITR1010A S03 24513 T 4:00-6:30(16) (J. Schwartz)

LITR 1010B. Advanced Poetry.
Course work includes a body of exercises, close reading of poetry, workshop conversations and conferences. See general course description above for course entry procedures for all advanced workshops. Instructor permission required. S/NC. WRIT
Fall LITR1010B S01 15240 M 3:00-5:30(15) (C. Wright)
Spr LITR1010B S01 24516 M 3:00-5:30(13) (P. Nelson)

LITR 1010D. Advanced Electronic Writing.
An advanced experimental workshop in writing for digital media. Students should have some experience of working with computer-based authoring tools for generating content. Writing for digital media is taken to mean any writing for which electronic supports are vital: to its literary aesthetic, to its cultural viability as (potential) literary art. The primary aim of the course is to produce a work of writing in digital media, but associated readings and discussion will draw out the problems associated with this contemporary challenge to traditional practices. Prerequisite one of the following: LITR 0210D, 1010A, 1010B, 1010C, 1010E, 1010G (or related experience). Enrollment limited to 12. Instructor permission required. S/NC. WRIT
Fall LITR1010D S01 15279 M 3:00-5:30(15) (J. Cayley)

LITR 1010E. Advanced Screenwriting.
The writing of short screenplays or a longer work in progress in regular installments, along with a body of exercises, workshop conversations and conferences. See general course description above for course entry procedures for all advanced workshops. Instructor permission required. S/NC. WRIT
Fall LITR1010E S01 15281 T 12:00-2:20(10) (J. Bizzi)

LITR 1010G. Cave Writing.
An advanced experimental workshop for writing in immersive 3D - at the cutting edge of new media - introducing text, sound, spatial poetics, and narrative movement into Brown’s “Cave” at its Center for Computation and Visualization. An easy-to-learn and easy-to-use application allows authors who utilize machine models of operation to create projects on their laptops and then to run them in the Cave without the necessity for specialist support. Broadly interdisciplinary, the course encourages collaboration between students with different skills in different media, who work together to discover a literary aesthetic in artificially rendered space. Instructor permission required. Enrollment limited to 12. S/NC. WRIT
Fall LITR1010G S01 15280 T 12:00-2:20(10) (J. Cayley)
Spr LITR1010G S01 24517 M 3:00-5:30(13) (J. Cayley)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
LITR 1110N. Workshop for Potential Literature.
A novel without the letter "E", 100,000-billion sonnets by permutation and texts that take the shape of a Mobius-Strip— all this time and more, as workshop participants try their hands in writing in response to problems created by and inspired by a group of writers engaged in strange constraints and procedures. Instructor permission required. S/NC. WRIT
Fall LITR1110N S01 16106 M 3:00-5:30(15) (P. Nelson)

LITR 1110R. Performance Dimensions of Text.
This workshop (modeled on a traditional "atelier") explores the relationships between the performative and the printed/textual, asking in particular how the page can serve as a dynamic blueprint for sound, video, movement, and theatrical practice. Weekly examples of works that have pushed the boundaries of literary genres by incorporating performative elements will be combined with student experimentation in long and short pieces. As an interdisciplinay workshop, this course invites students from all backgrounds. S/NC. Instructor's permission required. Enrollment limited to 12. WRIT
Spr LITR1110R S01 24512 T 10:30-12:50(09) (T. Field)

LITR 1110S. Fiction into Film.
A study of various directors’ attempts to transfer masterpieces of fiction into film. Concerning both genres we will ask Gertrude Stein’s question: What are masterpieces, and why are there so few of them? Includes fiction by Austen, Bierce, Carter, Cowley, Doyle, Faulkner, Forster, Fowles, Kesey, Joyce, McCullers, Morison, Nabokov, O’Connor, Thompson, Walker, Spielberg, Woolf, Yamamoto as directed by Burton, Forman, Fellini, Gilliam, Huston, Jordan, Kurasaawa, Lee, Potter, and others. Class and weekly screenings. Enrollment limited to 12. S/NC. WRIT
Fall LITR1110S S01 15221 T 10:30-12:50(13) (M. Steinbach)

LITR 1150H. Latin American Poetry Live.
We focus on 18 essential poets from Latin America. If you do not weep and run naked shouting through the streets of Providence you will not have read the poems closely. Bilingualism is not a prerequisite, but all the texts are bilingual and we will consider translation issues in a way that is accessible to and engaging for everyone. Several of the poems we consider are book length magisterial works. The poems are political, erotic, domestic, colloquial, innovative, or incendiary, and sometimes all at once. This section does not require permission from instructor. WRIT
Fall LITR1150H S01 16112 T 12:00-2:20(13) (F. Gander)

LITR 1150T. Foreign Home.
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. Instructor’s permission required. WRIT
Fall LITR1150T S01 15220 M 3:00-5:30(15) (T. Field)

LITR 1150Z. Reading for Writers.
We will look closely and deeply and with a writer’s passion and agenda to the various formal decisions used in a variety of astonishing and evocative texts with the objective of utilizing some of these strategies in weekly compositions of our own. Writers include: Aria, Berssenbrugge, Coetzee, Kertesz, Kincaid, Lispector, Mueller. DPLL LILE WRIT
Spr LITR1150Z S01 25472 Th 12:00-2:20(10) (C. Maso)

LITR 1151B. Figures of Thought.
What can you say about what can’t be said, and what form does such a saying take? From the gnostic gospels to Agamben, Yeats to Yves Bonnefoy, we’ll follow these fleeting figures of thought and their messages. We will read a variety of writings from the deep past to the present. These writings will come in a variety of forms but illuminate a path ahead of the one we daily follow. Students will keep journals that respond to the world and writing and bring these as material for discussion in class. Each one will give a presentation during the term. LILE WRIT
Fall LITR1151B S01 16758 F 3:00-5:30(14) (F. Howe)

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 15277 Th 2:30-3:50(11) (L. Swensen)
Spr LITR1200 S01 24510 Th 2:30-3:50(11) (B. Evenson)

LITR 1230J. Writing: Material Differences.
An exploration of practices that make a material difference to writing, that may change what writing is in specific cultural circumstance and locations. We will look for such differences through transcultural and translilingual experiments with writing, beginning ”West” and moving “East.” We will engage with a selection of widely divergent writers and genres, with emphases on poetics - particularly a translated rendition of Chinese poetics (such as was taken up by Pound and became influential in English literature) - and on theories that we can use for our practice, from: Fenollosa, Foucault, Derrida, and others. Enrollment limited to 20. DPLL
Spr LITR1230J S01 24518 W 3:00-5:30(14) (J. Cayley)

LITR 1230L. Eros and the Sower.
Literature, early and late, distant and near, at the intersection of love and loathing. A seminar on selected texts deriving their blood from poetry, their flesh from fiction, their anatomy from form and theory. Including works by Rikki Ducomet, Anne Carson, Roland Barthes. Helen Cixous, Gertrude Stein, Catullus, Henry Miller, et al. Enrollment limited to 20.
Spr LITR1230L S01 25346 M 3:00-5:30(13) (C. Wright)

LITR 1230Q. London Consequences.
This course focuses upon a selection of British prose from the 1960s and 1970s, and gives particular attention to post-war literary history in Britain, autobiographical fiction and the legacy of neo-modernism. We’ll consider the work of, among others, Anna Kavan, J.G. Ballard, Nicholas Mosley, Muriel Spark, Christine Brooke-Rose, Stefan Thomerson, Ann Quin and B.S. Johnson, along with (if available) London Consequences, a collaborative novel co-edited by Johnson. WRIT LILE
Spr LITR1230Q S01 26069 M 3:00-5:30(13) (J. Schwartz)

LITR 1230T. The Origins of the Detective Story.
This class will explore the development of the Detective genre, focusing on its roots in the 19th century and considering more broadly how genres develop on its roots. Readings include E.T.A. Hoffmann’s “Mademiselle de Scudery”, Edgar Allan Poe’s Auguste Dupin stories, Willie Collins, Arthur Conan Doyle, Martin Hewett, and selections from Detection by Gaslight and The Penguin Book of Gaslight Crime. We will also look at theatrical texts, including Franco Moretti’s “Clues”. This course fulfills Literary Arts’ pre-20th century literature requirement. Enrollment limited to 20.
Fall LITR1230T S01 16190 Th 12:00-2:20(10) (B. Evenson)

LITR 1300. Independent Study in Reading, Research, and Writing About Literature.
Provides advanced students with an opportunity to pursue tutorial instruction oriented toward a literary research topic.

LITR 1310. Independent Study in Creative Writing.
Offers tutorial instruction oriented toward some significant work in progress by the student. Typically taken by honors or capstone candidates in the antepenultimate or penultimate semester. See instructor to seek permission during the semester before undertaking the course of study. One advanced-level workshop is prerequisite. S/NC.

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 15239 W 12:00-2:20(12) (B. Evenson)
Spr LITR2010A S01 24511 F 12:00-2:20(05) (C. Maso)
LITR 2010B. Graduate Poetry.
Advanced practice of the art: a writing seminar, limited to graduate students in Literary Arts. Emphasis is placed on developing a better understanding of the creative process, strategies and forms. Written permission required. S/NC.
Fall LITR2010B S01 15242 M 12:00-2:20(12) (F. Gander)
Spr LITR2010B S01 24515 W 12:00-2:20(05) (C. Wright)

LITR 2110E. 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. Written permission required. S/NC.
Spr LITR2110E S01 25605 T 12:00-2:20(10) (L. Swensen)

LITR 2110L. The Novella.
This is a graduate-level course focused on reading and writing novellas. We will explore the dynamics of the form, what makes it appealing to writers, what advantages it has over stories or novels, and so on. In terms of writing, the goal for the class is for each participant to write and workshop one novella-length piece.
Spr LITR2110L S01 24733 W 3:00-5:30(14) (B. Evenson)

Geographically and/or aesthetically suspect, often shelved under the wrong rubric. Word-works by hermits and wanderers, sots and sot nots, whose language confirm, as Sister Rosetta Thorpe sang: Strange Things Happening Every Day. Including work by Bemilr Brigham, Wong May, Bernadette Mayer, Mary Reuffle, Frank Stanford, David Fisher, a new translation of Beowulf (by an American! A Woman!), and others. There may also be music.
Fall LITR2110J S01 16188 W 3:00-5:30(17) (C. Wright)

LITR 2210A. House Language.
We shall explore the house and its adjacent places and categories, with a focus upon narrative mannerism, terror and the grotesque, and the creation of literary form. We’ll discuss stories, essays, household artifacts and etiquette, architectural plans and dangerous parlor games. Works by, among others: Georges Perec, H.G. Wells, Shirley Jackson, Isabella Beeton, Alain Robbe-Grillet, Frank Lloyd Wright, Rube Goldberg and Edith Wharton.
Fall LITR2210A S01 16930 T 4:00-6:30(18) (J. Schwartz)

LITR 2230. Graduate Independent Study in Reading, Research, and Writing About Literature.
Provides graduate students with an opportunity to pursue tutorial instruction oriented toward a literary research topic.

LITR 2310. Graduate Independent Studies in Literary Writing.
Offers tutorial instruction oriented toward some significant work in progress by the graduate student. S/NC.

LITR 2410. Graduate Thesis Independent Study in Literary Writing.
Provides tutorial instruction for graduate students completing their graduate creative theses. Typically taken in the final semester. See instructor to seek permission during the semester before undertaking the course of study. S/NC.

LITR 2450. Exchange Scholar Program.

Mathematics

MATH 0010A. First Year Seminar: A Taste of the Infinite.
The concept of infinity occurs in many disciplines - philosophy, mathematics, physics, religion, art, and so on. This class will focus on the mathematical aspects of infinity, surveying some of the ways that the infinite arises in mathematics. Topics will include: the sizes of infinity, rates of growth, computational complexity, construction of the real numbers, the notion of compactness, geometric spaces, transcendental numbers, and fractal sets. I will not assume any prior knowledge of mathematics beyond a good grounding in high school algebra and geometry. FYS

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. Prerequisite: for MATH 0050 is written permission; for MATH 0060 is MATH 0050 or written permission. S/N only.
Fall MATH0050 S01 15306 MWF 9:00-9:50(16) (P. McGrath)

MATH 0060. Analytic Geometry and Calculus.
A slower-paced introduction to calculus for students who require additional preparation. Presents the same calculus topics as MATH 0090, together with a review of the necessary precalculus topics. Students successfully completing this sequence are prepared for MATH 0100. Prerequisite: for MATH 0050 is written permission; for MATH 0060 is MATH 0050 or written permission. S/N only.
Spr MATH0060 S01 24543 MWF 9:00-9:50(02) ‘To Be Arranged’

MATH 0070. Calculus with Applications to Social Science.
A one-semester survey of calculus for students who wish to learn the basics of calculus for application to social sciences or for cultural appreciation as part of a broader education. Topics include functions, equations, graphs, exponentials and logarithms, and differentiation and integration; applications as marginal analysis, growth and decay, optimization, and elementary differential equations. May not be taken for credit in addition to MATH 0090. S/N only.
Fall MATH0070 S01 15307 TTh 9:00-10:20(08) (A. Landman)

MATH 0090. Introductory Calculus, Part I.
An intensive course in calculus of one variable including limits, differentiation, maxima and minima, the chain rule, rational functions, trigonometric functions, and exponential functions. Introduction to integration with applications to area and volumes of revolution. MATH 0090 and 0100 or the equivalent are recommended for all students intending to concentrate in the sciences or mathematics. Lectures plus one 80-minute section arranged. S/N only.
Fall MATH0090 S01 15310 MWF 9:00-9:50(18) (R. Yl)
Fall MATH0090 S02 15311 W 10:00-10:50(18) (D. Katz)
Fall MATH0090 S02 15311 MWF 10:00-10:50(18) (D. Katz)
Fall MATH0090 S03 15312 TTh 9:00-10:20(18) (N. Ma)
Fall MATH0090 S04 15313 TTh 1:00-2:20(18) (N. Malik)
Fall MATH0090 S05 15314 TTh 2:30-3:50(18) (J. Lai)
Spr MATH0090 S01 24546 MWF 10:00-10:50(18) ‘To Be Arranged’
Spr MATH0090 S02 24546 MWF 2:00-2:50(18) ‘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 and 0100 or the equivalent are recommended for all students intending to concentrate in the sciences or mathematics.
Fall MATH0100 S01 15325 MWF 9:00-9:50(14) (D. Katz)
Fall MATH0100 S02 15327 MWF 1:00-1:50(14) (Q. Le)
Fall MATH0100 S03 15328 MWF 12:00-12:50(14) (K. Ascher)
Fall MATH0100 S04 15329 TTh 9:00-10:20(14) (A. Walker)
Fall MATH0100 S05 15330 TTh 2:30-3:50(14) (H. Tran)
Spr MATH0100 S01 24554 MWF 9:00-9:50(16) ‘To Be Arranged’
Spr MATH0100 S02 24555 MWF 10:00-10:50(16) ‘To Be Arranged’
Spr MATH0100 S03 24556 MWF 12:00-12:50(16) ‘To Be Arranged’
Spr MATH0100 S04 24557 TTh 2:30-3:50(16) ‘To Be Arranged’

MATH 0170. Advanced Placement Calculus.
 Begins with a review of fundamentals of calculus and includes infinite series, power series, paths, and differential equations of first and second order. Placement in this course is determined by the department on the basis of high school AP examination scores or the results of tests given by the department during orientation week. May not be taken in addition to MATH 0100.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
MATH 0170. 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 MATH0170 S01 15341 MWF 11:00-11:50(15) (D. Lowry)
Fall MATH0170 S02 15342 MWF 12:00-12:50(15) (D. Lowry)
Fall MATH0170 S03 15343 TTh 9:00-10:20(15) (F. D’Illario)

MATH 0180. Intermediate Calculus (Physics/Engineering). Covers roughly the same material and has the same prerequisites as MATH 0170, but is intended for students with a special interest in physics or engineering. The main topics are: calculus of vectors and paths in two and three dimensions; differential equations of the first and second order; and infinite series, including power series and Fourier series. The extra hour is a weekly problem session.

Fall MATH0180 S01 15344 MWF 12:00-12:50(09) (O. Cheng)
Fall MATH0180 S02 15345 MWF 1:00-1:50(09) (X. Chen)
Fall MATH0180 S03 15346 MWF 2:00-2:50(09) (X. Chen)
Spr MATH0180 S01 24566 MWF 9:00-9:50(15) ‘To Be Arranged’
Spr MATH0180 S02 24567 MWF 10:00-10:50(15) (S. Kleene)
Spr MATH0180 S03 24568 MWF 12:00-12:50(15) (S. Kleene)

MATH 0190. Advanced Placement 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 MATH0190 S01 15351 MWF 1:00-1:50(14) (N. Pfleuger)
Fall MATH0190 S02 15352 MWF 2:00-2:50(14) (N. Pfleuger)

MATH 0200. Intermediate Calculus (Physics/Engineering). Covers roughly the same material as MATH 0180, but is intended for students with a special interest in physics or engineering. The main topics are: geometry of three-dimensional space; partial derivatives; Lagrange multipliers; double, surface, and triple integrals; vector analysis; Stokes’ theorem and the divergence theorem, with applications to electrostatics and fluid flow. The extra hour is a weekly problem session. Recommended prerequisite: MATH 0100, 0170, or 0190.

Fall MATH0200 S01 15356 MWF 12:00-12:50(02) (E. Newkirk)
Fall MATH0200 S02 15357 MWF 12:00-12:50(02) (P. Carter)
Fall MATH0200 S03 15358 TTh 1:00-2:20(02) (A. Braverman)
Spr MATH0200 S01 24572 MWF 12:00-12:50(13) ‘To Be Arranged’
Spr MATH0200 S02 24573 MWF 1:00-1:50(13) (T. Fong)
Spr MATH0200 S03 24574 MWF 2:00-2:50(13) (T. Fong)

MATH 0350. Honors Calculus. A third-semester calculus course for students of greater aptitude and motivation. Topics include vector analysis, multiple integration, partial differential equations, line integrals, Green’s theorem, Stokes’ theorem, the divergence theorem, and additional material selected by the instructor. Prerequisite: Advanced placement or written permission.

Fall MATH0350 S01 15363 MWF 11:00-11:50(18) (B. Cole)
Fall MATH0350 S02 15364 MWF 10:00-10:50(18) (J. Silverman)

MATH 0420. Introduction to Number Theory. An overview of one of the most beautiful areas of mathematics. Ideal for any student who wants a taste of mathematics outside of, or in addition to, the calculus sequence. Topics include: prime numbers, congruences, quadratic reciprocity, sums of squares, Diophantine equations, and, as time permits, such topics as cryptography and continued fractions. No prerequisites.

Spr MATH0420 S01 24578 MWF 2:00-2:50(07) (N. Pfleuger)

MATH 0520. Linear Algebra. Vector spaces, linear transformations, matrices, systems of linear equations, bases, projections, rotations, determinants, and inner products. Applications may include differential equations, difference equations, least squares approximations, and models in economics and in biological and physical sciences. MATH 0520 or 0540 is a prerequisite for all 1000-level courses in Mathematics except MATH 1260 or 1610. Recommended prerequisite: MATH 0180, 0200, or 0350. May not be taken in addition to MATH 0540.

Fall MATH0520 S01 15365 MWF 2:00-2:50(14) (S. Kleene)
Fall MATH0520 S02 15366 TTh 10:30-11:50(14) (T. Belulovich)
Spr MATH0520 S01 24579 MWF 9:00-9:50(15) ‘To Be Arranged’
Spr MATH0520 S02 24580 MWF 11:00-11:50(15) (B. Cole)

MATH 0540. Honors Linear Algebra. Linear algebra for students of greater aptitude and motivation, especially mathematics and science concentrators with a good mathematical preparation. Matrices, linear equations, determinants, and eigenvalues; vector spaces and linear transformations; inner products; Hermitian, orthogonal, and unitary matrices; and Jordan normal forms. Provides a more extensive treatment of the topics in MATH 0520. Recommended prerequisites: MATH 0180, 0200, or 0350.

Fall MATH0540 S01 15367 MWF 11:00-11:50(18) (S. Kleene)
Fall MATH0540 S02 15368 TTh 1:00-2:20(18) (A. Landman)
Spr MATH0540 S01 24584 MWF 1:00-1:50(18) (S. Treil)
Spr MATH0540 S02 24585 MWF 2:00-2:50(18) ‘To Be Arranged’

MATH 1010. Analysis: Functions of One Variable. Completeness properties of the real number system, topology of the real line. Proof of basic theorems in calculus, infinite series. Topics selected from ordinary differential equations. Fourier series, Gamma functions, and the topology of Euclidean plane and 3-space. Prerequisite: MATH 0180, 0200, or 0350. MATH 0520 or 0540 may be taken concurrently. Most students are advised to take MATH 1010 before MATH 1130.

Spr MATH1010 S01 24586 MWF 11:00-11:50(04) (X. Chen)

MATH 1040. Fundamental Problems of Geometry. Topics are chosen from euclidean, projective, and affine geometry. Highly recommended for students who are considering teaching high school mathematics. Prerequisites: MATH 0520, 0540, or instructor permission.

Spr MATH1040 S01 24587 TTh 9:00-10:20(08) (G. Daskalopoulos)

MATH 1060. Differential Geometry. 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 15369 TTh 10:30-11:50(13) (R. Kinary)

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 15370 TTh 1:00-2:20(10) (T. Fong)

MATH 1120. Partial Differential Equations. The wave equation, the heat equation, Laplace’s equation, and other classical equations of mathematical physics and their generalizations. Solutions in series of eigenfunctions, maximum principles, the method of characteristics, Green’s functions, and discussion of well-posedness.

Prerequisites: MATH 0520 or MATH 0540, or instructor permission.

Spr MATH1120 S01 24588 MWF 1:00-1:50(06) (B. Cole)

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 15371 TTh 2:30-3:50(11) (S. Maloni)

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 24589 TTh 1:00-2:20(10) (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 15372 TTh 1:00-2:20(10) (R. Kenyon)

MATH 1270. Topics in Functional Analysis.
Infinite-dimensional vector spaces with applications to some or all of the following topics: Fourier series and integrals, distributions, differential equations, integral equations, calculus of variations. Prerequisites: At least one 1000-level course in Mathematics or Applied Mathematics, or permission of the instructor.
Fall MATH1270 S01 15373 MWF 11:00-11:50(04) (S. Treil)

MATH 1410. Combinatorial Topology.
Topology of Euclidean spaces, winding number and applications, knot theory, fundamental group and covering spaces, Euler characteristic, simplicial complexes, classification of two-dimensional manifolds, vector fields, the Poincaré-Hopf theorem, and introduction to three-dimensional topology. Prerequisites: MATH 0520 or MATH 0540, or instructor permission.

Fall MATH1410 S01 24590 TTh 10:30-11:50(09) (G. Daskalopoulos)

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 15374 MWF 10:00-10:50(03) (D. Abramovich)
Spr MATH1530 S01 24591 TTh 2:30-3:30(11) (A. Braverman)

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 24592 MWF 11:00-11:50(04) (J. Silverman)

MATH 1560. Number Theory.
A basic introduction to the theory of numbers. Unique factorization, prime numbers, modular arithmetic, quadratic reciprocity, quadratic number fields, finite fields, Diophantine equations, and additional topics. Prerequisite: MATH 1530 or written permission.
Spr MATH1560 S01 24593 TTh 2:30-3:30(11) (J. Hoffstein)

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 15375 TTh 10:30-11:50(10) (J. Hoffstein)

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 15376 TTh 2:30-3:30(11) (F. DiPlino)

MATH 1620. Mathematical Statistics.
Central limit theorem, point estimation, interval estimation, multivariate normal distributions, tests of hypotheses, and linear models. Prerequisite: MATH 1610 or written permission.
Spr MATH1620 S01 24594 TTh 9:00-10:20(08) (A. Landman)

MATH 1970. Honors Conference.
Collateral reading, individual conferences. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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.
Fall MATH2010 S01 15377 TTh 9:00-10:20(08) (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 15378 TTh 10:30-11:50(13) (A. Braverman)

MATH 2060. Algebraic Geometry.
See Algebraic Geometry (MATH 2050) for course description.
Spr MATH2060 S01 24595 MWF 1:00-1:50(06) (D. Abramovich)

MATH 1140. Introduction to Manifolds.
Inverse function theorem, manifolds, bundles, Lie groups, flows and vector fields, tensors and differential forms, Sard’s theorem and transversality, and further topics chosen by instructor.
Spr MATH2140 S01 24596 TTh 2:30-3:50(11) (T. Goodwillie)

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 15379 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 24597 MWF 2:00-2:50(07) (J. Holmer)

MATH 2370. Partial Differential Equations.
The theory of the classical partial differential equations; the method of characteristics and general first order theory. The Fourier transform, the theory of distributions, Sobolev spaces, and techniques of harmonic and functional analysis. More general linear and nonlinear elliptic, hyperbolic, and parabolic equations and properties of their solutions, with examples drawn from physics, differential geometry, and the applied sciences.
Semester II concentrates on special topics chosen by the instructor.
Fall MATH2370 S01 15380 MWF 10:00-10:50(03) (J. Holmer)

MATH 2380. Partial Differential Equations.
The theory of the classical partial differential equations; the method of characteristics and general first order theory. The Fourier transform, the theory of distributions, Sobolev spaces, and techniques of harmonic and functional analysis. More general linear and nonlinear elliptic, hyperbolic, and parabolic equations and properties of their solutions, with examples drawn from physics, differential geometry, and the applied sciences.
Semester II of this course concentrates on special topics chosen by the instructor.
Spr MATH2380 S01 24598 MWF 11:00-11:50(03) (W. Strauss)

MATH 2410. Topology.
An introductory course with emphasis on the algebraic and differential topological properties of manifolds. Topics include simplicial and singular homology, de Rham cohomology, and Poincaré duality.
Fall MATH2410 S01 15381 TTh 1:00-2:20(10) (S. Maloni)

MATH 2420. Topology.
See Topology (MATH 2410) for course description.
Spr MATH2420 S01 24599 TTh 9:00-10:20(08) (J. Brock)

MATH 2450. Exchange Scholar Program.
Fall MATH2450 S01 14431 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 15382 MWF 11:00-11:50(04) (J. Silverman)

MATH 2520. Algebra.
See Algebra (MATH 2510) for course description.
Spr MATH2520 S01 24600 TTh 1:00-2:20(10) (J. Hoffstein)

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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Interested students must register for HIST 1031.

MDVL 1040. Crusaders and Cathedrals, Deviants and Domination: Europe in the High Middle Ages (HIST 1040).
Interested students must register for HIST 1040.
Spr MDVL1040 S01 25577 Arranged 'To Be Arranged'

MDVL 1310E. A Classical Islamic Education: Readings in Arabic Literature (COLT 1310E).
Interested students must register for COLT 1310E.
Fall MDVL1310E S01 16041 Arranged 'To Be Arranged'

MDVL 1310V. Chaucer: The Canterbury Tales (ENGL 1310V).
Interested students must register for ENGL 1310V.
Spr MDVL1310V S01 25587 Arranged 'To Be Arranged'

MDVL 1360H. Seminar in Old English Literature (ENGL 1360H).
Interested students must register for ENGL 1360H.
Fall MDVL1360H S01 16259 Arranged 'To Be Arranged'

MDVL 1361D. Women's Voices in Medieval Literature (ENGL 1361D).
Interested students must register for ENGL 1361D.
Spr MDVL1361D S01 25611 Arranged 'To Be Arranged'

MDVL 1440B. The Medieval Monastery (HIAA 1440B).
Interested students must register for HIAA 1440B.
Spr MDVL1440B S01 25185 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.

Interested students must register for HIST 1972H.
Spr MDVL1972H S01 25051 Arranged 'To Be Arranged'

Interested students must register for HIST 1976Z.
Fall MDVL1976Z S01 15884 Arranged 'To Be Arranged'

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 2400H. Christians and Muslims in the Early Middle Ages (RELS 2400H).
Interested students must register for RELS 2400H.
Spr MDVL2400H S01 25608 Arranged 'To Be Arranged'

MDVL 2970A. New Perspectives on Medieval History (HIST 2970A).
Interested students must register for HIST 2970A.
Fall MDVL2970A S01 15762 Arranged 'To Be Arranged'

Middle East Studies
MES 0155. Cultures of the Contemporary Middle East.
In our exploration of Middle Eastern social movements, this course addresses the role of culture and art in social change; the relationship between faith and politics; as well as the impact of national, regional, and transnational discourses on identity, ethics, and citizenship. The study of social movements in the region will address the impact of technology, media, women’s rights and LGBT movements, as well as economic liberalization, entrepreneurship, and the politics of oil. Finally, we will trace the emergence and consequences of the “Arab Spring.” DPLL.
Fall MES0155 S01 16619 TTh 2:30-3:50(11) (S. Atshan)

MES 1001. Revolution and Poets: Content and Form in Iranian Poetry.
Explains classical rules of Persian poetry and development of poetic content by several different modern Iranian poets. Examines how modern poets such as Shamlou, Akhavan, and Forough have been influenced by Nima Yooshij, the father of modern poetry in Iran. We will explore different

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
formalistic approaches to poetry in Iran from the 1960’s to present, and examine various literary movements and their relation to the Islamic Revolution and post revolutionary context. We will examine the new postmodern poets from the 1990’s to present and the ways in which classical form is repurposed to achieve social commentary in subversive ways. DPLL

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor</th>
<th>Section</th>
<th>CRN</th>
<th>Term</th>
<th>Time</th>
<th>Days</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MES 1050.</td>
<td>Israel/Palestine: A Critical Lexicon.</td>
<td>M. Namjoo</td>
<td>S01</td>
<td>16800 W</td>
<td>Fall</td>
<td>3:00-5:30</td>
<td>(17)</td>
<td>(M. Namjoo)</td>
</tr>
<tr>
<td>MES 1999B.</td>
<td>Anthropology /Sociology of Development in the Arab World.</td>
<td>N. Perugini</td>
<td>S01</td>
<td>16483 W</td>
<td>Fall</td>
<td>3:00-5:30</td>
<td>(17)</td>
<td>(N. Perugini)</td>
</tr>
</tbody>
</table>


This is an introductory course to the question of Israel/Palestine. The course uses a series of alphabetically ordered and carefully selected concepts as a way to cut through the dense history of the region and the conflicting forces that shape its present. From "Colonialism” to “Zionism,” each concept will be surveyed with respect to its history, the pattern of its present usages, the discursive formations to which it belongs, and its political impact, taking into account the inevitable, conflicting ideological biases and discursive constraints of the many kinds of knowledge about Israel/Palestine. DPLL WRIT

MES 1999C. Elites in Arab Culture and Society.

Social science studies the marginalized while ignoring elites and their role. This is especially the case with “Arab” elites. Yet, to understand the conditions of the poor and marginalized, one must study elites. Elites are a lens to historically understand class formation in the Arab World, and influences beyond. We will consider how and why we study elites, different theories and methodologies of studying elites, and focus on elites in Arab societies. The course will deal with elites in the mandate period and early independence. The last part of the course will focus on elites in contemporary Arab society. DPLL WRIT

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
EGYT 1310 Introduction to Classical Hieroglyphic Egyptian Writing and Language (Middle Egyptian I)
EGYT 1330 Selections from Middle Egyptian Hieroglyphic Texts
EGYT 1410 Ancient Egyptian Literature
History
HIST 097 1  Warriors, Lovers, and Saints: The Middle Eastern Story-Cycle in Historical Context
HIST 1461 Afghanistan: Crossroads of Empires to America’s Longest War
HIST 1970A Students and Scholars in the Modern Middle East
HIST 1970N Christian Muslim Relations in the Middle Ages
HIST 1970Q Approaches to The Middle East
International Relations
INTL 180Q Iran and the Islamic Revolution
Judaeic Studies
JUDS 0100 Elementary Hebrew
JUDS 0300 Intermediate Hebrew
JUDS 0500 Writing and Speaking Hebrew
JUDS 1670 Ancient Synagogues, Churches, and Mosques in Palestine
JUDS 1717 American Jews and Israel: From AIPAC to J Street
JUDS 1723 Jews and Muslims
Persian
PRSN 0100 Basic Persian
PRSN 0300 Intermediate Persian Language and Culture
PRSN 0500 Advanced Persian Language and Culture I
Religious Studies
RELS 0150 Islam Unveiled
RELS 0400 New Testament and the Beginnings of Christianity
Turkish
TKSH 0100 Introduction to Turkish Language and Culture I
Spring 2015
The following related courses, offered in other departments, may be of interest to students concentrating in Middle East Studies. Please see the course listing of the sponsoring department for times and locations.

Arabic
ARAB 0200 First-Year Arabic
ARAB 0210 Egyptian Arabic
ARAB 0400 Second-Year Arabic
ARAB 0600 Third-Year Arabic
ARAB 0800 Fourth-Year Arabic
Archaeology and the Ancient World
ARCH 1635 The Great Heresy: Egypt in the Amarna Period
Comparative Literature
COLT 0510K The 1001 Nights
COLT 0710Y After The War: Arendt, Duras, Kahanoff and Anonymous from Berlin
Egyptology
EGYT 2900 Egyptian Art in New England Museums
History
HIST 1455 The Making of the Modern Middle East, 1750 to the Present
HIST 1971M Middle East Voices: The Novel as Social History from Morocco to Afghanistan
HIST 1977M Twentieth Century Iran
Judaeic Studies
JUDS 050H Israel’s Wars
JUDS 1615 The Archaeology of Palestine
Modern Culture and Media
MCM 1205W Iranian Cinema
MCM 1504F Photo-Lab: The Visual Performance of Rights
MCM 2300H The Cinema of Abbas Kiarostami
Political Science
POLS 1270 Middle East Politics
POL 1822I Geopolitics of Oil and Energy
Persian
PRSN 0200 Basic Persian
PRSN 0400 Intermediate Persian Language and Culture
PRSN 0600 Advanced Persian Language and Culture II
Religious Studies
RELS 0640 Dying to be with God: Jihad, Past and Present
RELS 2400H Christians and Muslim in the Early Middle Ages

Modern Culture and Media

MCM 0110. Introduction to the Theory and Analysis of Modern Culture and Media.
An introduction to critical theory, cultural studies, and media analysis that addresses print, photography, film, television, and digital media. We will examine these media in relationship to influential theoretical approaches such as structuralism and post-structuralism, ideological analysis and psychoanalysis, feminist and queer theory, critical race theory and theories of post-colonialism and globality, and media and technology studies. LILE WRIT
Fall MCM0110 S01 14952 MW 1:00-1:50(06) (P. Rosen)

MCM 0230. Digital Media.
This course introduces students to the critical study of digital media: from surveillance to haecceity, 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 relations 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.
Spring MCM0230 S01 24257 MW 11:00-11:50(04) (W. Chun)

MCM 0260. Cinematic Coding and Narrativity.
Introduces students to rigorous study of the structural and ideological attributes of cinema, concentrating on the dominant narrative model developed in the American studio system and alternatives to that model. Attention to film theory in relation to questions of representation, culture, and society. Students become conversant with specific elements and operations of the cinematic apparatus (e.g. camerawork, editing, sound-image relations) and how they produce discursive meanings. Students MUST register for the lecture, section and one screening. A sign-up sheet will be available for conferences after the first class meeting. Open to undergraduates only. LILE WRIT
Spr MCM0260 S01 24267 MW 1:00-1:50(06) (P. Rosen)

MCM 0710. Introduction to Filmmaking: Time and Form.
A studio-style course on working with time based media, focused specifically on the technology of 16mm film production. With its focus on photographic and montage processes, as well as lighting and sound, the principles established in this course provide a solid foundation for all subsequent work in media, whether cinematic, video or new media, and it is strongly advised as a foundation level, skills oriented media course. Students produce a series of short, non-sync films. No previous experience required. Screenings, demonstrations and studio work. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. Up to 40 students can apply, but the final class list of 15 will be determined after this meeting, with permission of the instructor. Enrollment limited to 15. S/NC
Fall MCM0710 S01 14960 T 1:30-3:50(10) (L. Thornton)
Spr MCM0710 S01 24274 T 1:30-3:50(10) (L. Thornton)

MCM 0730. Introduction to Video Production: Critical Strategies and Histories.
Provides the basic principles of video technology and independent video production through a cooperative, hands-on approach utilizing small format video (Mini DV). Emphasizes video as a critical intervention in social and visual arts contexts. No previous experience required. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. Up to 40 students can apply, but the final class list of 12 will be determined after this meeting, with permission of the instructor. Enrollment limited to 12. S/NC
Fall MCM0730 S01 14962 Th 4:00-6:50(18) (A. Cokes)

MCM 0750. Art in Digital Culture.
How do we produce, disseminate, and exchange images in a global networked society? How do digital technologies challenge conventions about art making, authorship, and audience? This production course introduces students to the practice, and critical inquiry into art in digital culture. The class will engage in contemporary debates on art and new media and will experiment with digital photography, video, and coding. Throughout the semester, students will work on a series of short projects, and a final individual or collaborative work. Artist case studies include Harun Farocki, Oliver Laric, and anonymous-memes-creators; readings include, Hito Steyerl, David Joselit, and Boris Groys. Enrollment limited to 40. LILE
Fall MCM0750 S01 16685 W 3:00-5:50(17) (E. Giardina Papa)
MCM 0780. Soundtracks: Sound Production and Visual Media. A production course that examines the role of sound in film, video, and installation forms. The listening assignments and visual media screenings will foreground the usage of audio in the works of selected artists/filmmakers. The course also considers works of sound art. Readings by sonic theorists and producers will examine the possibilities of sound production as a key register of modern social and aesthetic experience. Class members should have completed at least one time-based media class. Students are expected to be competent technically. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. The final class list will be determined after this meeting, with permission of the instructor. Enrollment limited to 15. S/NC.
Spr MCM0780 S01 24276 Th 4:00-6:50(17) (A. Cokes)

MCM 0901N. Body/Gesture/Cinema. Antonin Artaud once called the body “a language to which it seems we no longer have the key.” This course is an attempt to take up this challenge in light of our experience at the cinema. Two questions will guide our investigation: Do the bodies on film “signify”? If so, how does this signifying practice trigger our own corporeal unconscious? We will explore a wide range of texts across film studies, theatre, anthropology, linguistics, and critical theory. Topics include gesture, ethnography, disability, violence, horror, and phenomenology. Readings include Didi-Huberman, Benjamin, Ricoeur, Merleau-Ponty, Kristeva, Shaviro, Sochack, Naremore, Clover, Linda Williams, etc.
Fall MCM0901N S01 15765 T 4:00-6:30(18) (S. Watter)

MCM 0901O. Reinventions of Life: Aesthetics, Biopolitics, and the Avant-Gardes. The impulse to connect art with life runs through the avant-gardes of the early and mid-twentieth century. Yet recently, the question of what constitutes life itself has emerged with increasing persistence. In this course, we will reconsider the history of the avant-gardes—and the avant-garde cinema particularly—in relation to this question. Drawing broadly on theories of how contemporary forms of life have been managed and made productive, we will explore the links between the avant-garde’s aesthetic and political practices and its ongoing efforts to redefine and reinvent social existence. Readings include Benjamin, Foucault, Lacan, Fanon, Debord, Mulvey, and Agamben.
Spr MCM0901O S01 25531 T 4:00-6:30(16) (K. Berger)

MCM 1201K. Queer Relations: Aesthetics, Biopolitics, and the Avant-Gardes. Interested students must register for ENGL 1900R.
Fall MCM1201K S01 16258 Arranged 'To Be Arranged'

MCM 1202B. Literature and Politics (ENGL 1900D). Interested students must register for ENGL 1900D.
Spr MCM1202B S01 25600 Arranged 'To Be Arranged'

Fall MCM1202D S01 15721 Arranged 'To Be Arranged'

MCM 1202N. Performance Theory: Ritual, Play and Drama in Context (TAPS 1230). Interested students must register for TAPS 1230.
Fall MCM1202N S01 16237 Arranged 'To Be Arranged'

MCM 1202W. Iranian Cinema. The emergence in the 1990s of Iranian cinema onto the world stage caught many by surprise. This cinema has, however, had a long and illustrious history. While attempting to provide an historical survey of these films, we will focus primarily on those produced in the last two decades. We will pay close attention to cinematic form but will also examine the ways the films intersected with cultural-political events, including the Revolution and the subsequent Islamization of the culture, the institutionalization of the "modesty system," and the alteration of divorce laws.
Spr MCM1202WS S01 24280 TTh 1:00-2:20(10) (J. Copic)

MCM 1202X. Twentieth-Century Western Theatre and Performance (TAPS 1250). Interested students must register for TAPS 1250.
Spr MCM1202X S01 25568 Arranged 'To Be Arranged'

MCM 1203A. Gaming of the Oppressed: Theory and Design. This course gives an overview of various types of "serious games" or "anti-oppressive games" that range from videogames to immersive transmedia storytelling games. We will explore issues of why gaming is so enticing and the potential games have through their history, procedure, and design. We will then examine the role games play in our everyday lives and games' potential for understanding motivation, education, and labor.
Fall MCM1203A S01 16820 W 3:00-4:20(17) (A. Agloro)
Fall MCM1203A S01 16820 M 3:00-4:20(17) (A. Agloro)

MCM 1203B. Politics + Aesthetics of Hollywood. Hollywood is an industry, a cultural bellwether, and a globally distributed artform. This course will consider these functions together, asking how Hollywood's aesthetics connect to its ideology and commerce. Focusing on the post-studio life of Hollywood, and on Hollywood's preoccupation with sex and violence, we'll pay special attention to the genres of melodrama and crime film, 1945-2000. We'll read film theory, "Hollywood novels," and documents of film culture, and watch films by filmmakers who were central to the industry (like Hitchcock and Minnelli) as well as those at its margins (from Lupino and Waters to Burnett and Cronenberg).
Spr MCM1203B S01 26097 TTh 10:30-11:50(09) (M. Tierney)

MCM 1203C. Tv Time Machine: History, Representation, Politics. How does television both document and represent historical events? This course examines American history "as seen on TV": how viewers watch noteworthy events live; how television archives crucial moments and time periods; and how genres such as the news, period drama and sitcom, and reality TV differ in their representations. We consider what makes television a unique medium for which to study history, particularly focusing on questions of gender, class, race, and sexuality. Utilizing approaches including the study of collective memory, historiography, aesthetic and textual analysis, and media theory, we will assess the imbrication of American history and popular culture.
Fall MCM1203C S01 16863 TTh 10:30-11:50(13) (H. Hargraves)

MCM 1203E. Intellectual Life and Culture in the Post-Western World. No one alive today has experience of a world in which the United States is not the leading economic power. This is the world we shall all encounter, however, very soon. Such headlines are small indices of an emerging post-Western future. We will investigate the intellectual, political and aesthetic culture of this future. What will change when Judeo-Christian societies no longer monopolize global conversation? When societies that have historically rejected Western capitalism come to dominate it? What new ideas will be unleashed in such a world, and what will their consequences be for our thinking about politics, economy and identity?
Spr MCM1203E S01 26088 TTh 6:40-8:00PM(12) 'To Be Arranged'

MCM 1503B. Jane Austen and George Eliot (ENGL 1560A). Interested students must register for ENGL 1560A.
Spr MCM1503B S01 25569 Arranged 'To Be Arranged'

MCM 1503O. Market Economy, Popular Culture, and Mass Media in Contemporary China (EAST 1950G). Interested students must register for EAST 1950G.
Spr MCM1503O S01 29046 Arranged 'To Be Arranged'

MCM 1503W. Getting Emotional: Passionate Theories (ENGL 1560W). Interested students must register for ENGL 1560W.
Spr MCM1503W S01 29599 Arranged 'To Be Arranged'

MCM 1504C. Greek Tragedy in Politics, Philosophy, Theater and Film: 5th, 20th and 21st Century Contexts. In Sophocles’ Antigone, Antigone buries her brother though her uncle, Creon, who was central to the industry (like Hitchcock and Minnelli) as well as those at its margins (from Lupino and Waters to Burnett and Cronenberg).
Spr MCM1504C S01 29599 Arranged 'To Be Arranged'
MCM 1504D. Sex, Difference and Relation.
Renewed interest on the topic of sexual difference has emerged among philosophers and analysts. Much of this is a response to Lacan’s provocation: “There is no sexual relation,” in which the negation is as vexing as the two terms it intends to (de)suture: sexuality and relation. That sex is neither a biological nor a cultural category is an axiom of the seminar. But we will want to sort out how this impacts questions of difference, relation, and touch. Classic texts by Freud and Lacan, will be read alongside recent works by Badiou, CASSIN, David-MENARD, Nancy, and LAPLANCHE, among others.

Fall MCM1504D S01 14971 T 1:20-3:50(10) (J. Copjec)

An abundance of "images of atrocity" show daily human rights violations around the globe. The course examines the formation of this visual rhetoric of Human Rights from the end of WWII to the proclamation of the Universal Declaration of Human Rights and its ratification. Following the quick dissemination of this visual rhetoric we shall question the monopoly it has gained and maintained ever since. Studying photography as an event and a set of relations, we shall explore other possible uses of photography to encode, show and struggle against human rights violations, and to imagine a visual declaration of human rights.

Spr MCM1504F S01 24288 M 3:00-5:30(15) (A. Azoulay)

MCM 1504G. Chinese Women, Gender, and Feminism from Historical and Transnational Perspectives (EAST 1950B).
Interested students must register for EAST 1950B.

Spr MCM1504G S01 25047 Arranged 'To Be Arranged' 

Interested students must register for ITAL 1340.

Fall MCM1504H S01 16454 Arranged 'To Be Arranged'

MCM 1504L. Image, Music, Text (ENGL 1762C).
Interested students must register for ENGL 1762C.

Spr MCM1504L S01 25624 Arranged 'To Be Arranged'

MCM 1504J. Kubrick (ENGL 1762).
Interested students must register for ENGL 1762D.

Fall MCM1504J S01 16292 Arranged 'To Be Arranged'

MCM 1504K. Queer Theories (HMAN 1971).
Interested students must register for HMAN 19711.

Spr MCM1504K S01 25843 Arranged 'To Be Arranged'

MCM 1504L. Radical Poetics + World Cinema.
"Cinema is a language," so they say. But what kind of language? Is it prose, telling stories about the world? Or is it poetry, with no formal rules but those it imposes upon itself, and with enough creative energy to remake or shatter the world? As we’ll see, ‘film poetry’ has, since cinema was born, been a watchword to filmmakers and theorists for whom cinema might deform the world’s grotesque structures of power. We’ll read manifestoes of radical poetics and ‘film poetry’ — authors range from GLISSANT and KRISTEVA to RUIZ and PASOLINI—and watch political films from all seven continents.

Spr MCM1504L S01 26104 T 4:00-6:30(16) (M. Tierney)

MCM 1700B. Approaches to Narrative.
A production seminar for intermediate to advanced students in film and/or video production. Students complete a substantial media project in the course of the semester. Class meetings will focus on close readings and critical feedback of students’ work during all phases of production. Texts related to narrative theory and production will be discussed. Screenings of exemplary works will supplement the class. Class members should have completed at least one time-based media class. Students are expected to be competent technically. An application will be completed during the first class session and the final class list will be determined after this meeting, with permission of the instructor. S/N/C

Fall MCM1700B S01 14973 W 2:00-6:50(07) (L. Thornton)

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. A major project (10-20 minutes) and in-class presentations of work-in-progress required. Readings on the theory and practice of the form and selective screenings augment the presentation of student work. Class members should have completed at least one time-based media class. Students are expected to be competent technically. Application required. Application is available in the MCM office. Students must bring a completed application to the first class to be considered for admission. The final class list will be determined after this meeting, with permission of the instructor. Enrollment limited to 20. S/N/C.

Fall MCM1700D S01 14975 W 10:00-12:50(03) (A. Cokes)

MCM 1700S. Narrative and Immersion.
A production course examining the potentials for engagement in new media installations. The course draws on techniques of narrative to establish engagement in immersive environments. Students will be introduced to cinematic concepts, interactive technologies, multi-channel video and surround sound environments. Classes meetings will consist of viewing and analysis of exemplary work, discussion of readings, and critiques of student projects. An additional 1-hour technical workshop will be devoted to learning Jitter. Class members should have completed advanced work in film/video, digital sound, and/or creative writing. Open to upper-level undergraduate students and graduate students. The final class list will be determined after the first class meeting, by permission of instructor. Lab times to be announced. S/N/C.

Spr MCM1700S S01 24292 W 1:00-4:50(06) (L. Thornton)

MCM 1700W. History, Theory and Practice of Storytelling Using Stereoscopic ("3D") Motion Pictures (HMAN 1971C).
Interested students must register for HMAN 1971C.

MCM 1700R. 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.

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.

MCM 2100L. The Politics of Precariousness and Resilience (POLS 2355).
Interested students must register for POLS 2355.

Fall MCM2100L S01 16345 Arranged 'To Be Arranged'

MCM 2100M. Liveness: Performance and Neoanimism in Late Capitalism (TAPS 2200N).
Interested students must register for TAPS 2200N.

Fall MCM2100M S01 16561 Arranged 'To Be Arranged'

MCM 2110K. Post-Reading.
This course traces two trajectories in recent theorizations of reading. The first is literary, ranging from the New Criticism and “close reading” to contemporary accounts of “symptomatic,” “surface,” and “uncritical” reading. The second focuses on potentially cognate terms for the “reader”: the “spectator,” “user,” “gamer.” We’ll examine the ways in which literary/print models of reading shape subsequent accounts of textual engagement and how theories of “new” media impact our understanding of what it means to read. Post-Reading, in this context, does not mean beyond reading or after it, but in the wake of reading, as in post-structuralism or post-feminist.

Spr MCM2110K S01 24293 T 1:20-3:50(10) (E. Rooney)

MCM 2120B. New Media Theory.
An interdisciplinary investigation of “New Media Theory,” bringing together historically significant texts from the fields of media, film, literary, music, visual, HCI and cultural studies, with more recent texts in new media studies. As well as exposing students to the canon (from hypertext theory to software studies, HCI to media archaeology), the course will also address the question: what is at stake in the creation of this canon and this...
MCM 290B. Cinema and State Violence. Theoretical and political conceptions of state and global violence posed against practices and histories of cinema, as representational apparatus, textuality and institution. Attention to the establishment of film as a global medium through World War I, current work on "global media culture," textual configurations of violence, etc. Readings from sociopolitical theorists (e.g. Weber, Benjamin, Schmitt, Arendt, Agambem, Hardt and Negri, Foucault) and cinema/media scholars (e.g. Virilio, Prince, L. Williams, Kaes, etc.). Enrollment limited to 15. This course is for Graduates only. Upperclass undergraduates require instructor's permission. Students must register for the primary meeting and one film screening.

Fall MCM290B S01 15028 T 6:20-6:50PM(05) (W. Chun)

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.

Fall MCM2980 S01 16828 Th 4:00-6:30PM(02) (P. Rosen)


Fall MCM2990 S01 14434 Arranged 'To Be Arranged'
Spr MCM2990 S01 23802 Arranged 'To Be Arranged'

Music

MUSC 0010. Introduction to Western Music. A study of a thousand years of music of Europe and America through CD's, DVDs, and YouTube. We’ll explore how individuals, institutions, and societies create music, use it, experience it, pay for it, and control it. We’ll discuss music and time, music and politics, music and identity. Still, the heart of the course is listening to great music, and learning how it works.

Spr MUSC0010 S01 25874 TTh 9:00-10:20(08) (A. Mueller)

MUSC 0011G. Duke Ellington. This class will be an examination of the life and work of Duke Ellington. We will use recordings, scores, films, autobiographies, interviews, oral histories and other primary source materials as well as biographical, theoretical and analytical readings to study Ellington’s three careers: the composer, the performer and the band leader. We will analyze his work largely within the musical parameters of form, improvisation techniques, orchestration, instrumentation, rhythmic and chordal structures, and concepts of tone quality. Although musical literacy is not required for this course, students who so wish may receive tutorials in the rudiments of theory and score reading. Enrollment limited to 20 first-year students. FYS WRT

Fall MUSC0011S S01 16098 Th 4:00-6:30PM(02) (M. McCarell)

MUSC 0040. World Music Cultures (Africa, America, Europe, Oceania). A survey of a variety of musical styles from Africa, the Americas, Europe, and Oceania outside the Western art music tradition. Introduces these musics in their historical, social, and cultural context, in an attempt to understand them in their own theoretical systems and aesthetic frameworks.

Fall MUSC0040 S01 16080 MWF 10:00-10:50(03) (S. Kaskowitz)

MUSC 0064. Honky Tonk Heroes. This course explores country music from its origins to the present day. We will trace its development through the careers of foundational artists like the Carter Family, Hank Williams, Loretta Lynn, and Willie Nelson, and evaluate the way that their legacy is reflected in the work of contemporary artists like Corb Lund, Hayes Carll, and Neko Case. Beyond the individual creativity of these figures, we will consider the way that country music has been shaped by the recording industry, the relation it has to race, gender, and political identities, and the international spread of the American country sound.

Fall MUSC0064 S01 25753 MWF 11:00-11:50(04) (C. Tucker)

MUSC 0200. Computers and Music. An introduction to the field of computer music, focusing on the use of electronics and computers in music and performance. Investigates basic acoustics, perception of sound, the history of music technology, and musical applications. Extensive listening assignments illustrate the impact of technology on popular and experimental genres. No prerequisites, though some experience with computers and some knowledge of music is very helpful. Significant hands-on experience with computer music systems. Enrollment limited to 80 students. Permission will be granted based on a questionnaire given in the first class, with preference given to lower-level students. LILE

Fall MUSC0200 S01 16090 TTh 10:30-11:50(13) (T. Winkler)

MUSC 0210E. Systems for Play. Complex patterns emerge while playing with simple processes. This course focuses on systems as creative constraints and sites for composing sound and other materials. Amplifying, multiplying, delaying, cutting, folding, growing and randomizing become lenses for animating our practices and playgrounds for exploring tendencies (our own, the materials’, the systems’). Assignments are project-based and informed by short readings. There are no prerequisites and enrollment is limited to 18.

Spr MUSC0210G S01 25926 M 1:00-4:50PM(06) (P. Bussigel)

MUSC 0220. Electroacoustic Improv Ensemble. An ensemble devoted to free improvisation with new media. Experimental approaches to sound and focused listening techniques are explored with acoustic instruments, live electronics, real-time video, together with networked improvisation, and more. Enrollment limited to 12 students; by audition.

Fall MUSC0220 S01 16222 W 7:00-9:50PM(17) (J. Ferguson)

MUSC 0221. Electroacoustic Improv Ensemble. An ensemble devoted to free improvisation with new media. Experimental approaches to sound and focused listening techniques are explored with acoustic instruments, live electronics, real-time video, together with networked improvisation, and more. Enrollment limited to 12 students; by audition.

Spr MUSC0221 S01 25514 W 7:00-9:50PM(14) (J. Ferguson)

MUSC 0400. Introduction to Music Theory. An introduction to musical terms, elements, and techniques, including notation, intervals, scales and modes, triads and seventh chords, modulation, melody writing and harmonization, analysis, and composition. Ear-training and sight-singing are included. For students with some musical training. Enrollment limited to 40.

Fall MUSC0400 S01 16081 MWF 11:00-11:50(04) (B. Fugate)
Spr MUSC0400 S01 25341 MWF 10:00-10:50(03) 'To Be Arranged'

MUSC 0550. Theory of Tonal Music. Prerequisite to music concentration. For students with knowledge of rudiments of music, including scales, intervals, key signatures, rhythm, and meter. Knowledge of keyboard strongly recommended. Intensive study of voice leading and tonal harmony; analysis, ear training, sight-singing, keyboard exercises. A placement test will be administered in Orwig 315 at the first regular class meeting. Students intending to enroll in MUSC 0550 must take this test. Experienced instrumentalists or singers who have some facility reading music at sight normally place into MUSC 0550. MUSC 0400 is appropriate for students who need training in the rudiments to prepare for MUSC 0550. MUSC 0550 is prerequisite to MUSC 0560.

Fall MUSC0550 S01 16100 TTh 10:30-11:50(09) (M. Steinbach)
Fall MUSC0550 S02 16101 TTh 1:00-2:20(10) (M. Steinbach)

MUSC 0560. Theory of Tonal Music. See Theory Of Tonal Music (MUSC 0550) for course description. Prerequisite: MUSC 0550 or permission of the instructor.

Spr MUSC0560 S01 25875 TTh 1:00-2:20(10) (M. Steinbach)
Spr MUSC0560 S02 25876 TTh 1:00-2:20(10) (P. Phillips)

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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
MUSC 0601. Chorus.
See Chorus (MUSC 0600) for course description.
Spr MUSC0601 S01 25515 MW 7:30-8:20PM(13) (L. Jody)

MUSC 0610. Orchestra.
Half credit each semester. A practical study of the orchestra repertory from Bach to the present, offered through coaching, rehearsals, and performances. Enrollment is by audition. Students will be notified of audition results within the first seven days of the semester. Restricted to skilled instrumentalists. May be repeated for credit.
Fall MUSC0610 S01 16209 TTh 7:15-9:45PM(05) (P. Phillips)

MUSC 0611. Orchestra.
See Orchestra (MUSC 0610) for course description.
Spr MUSC0611 S01 26092 TTh 7:15-9:45PM (P. Phillips)

MUSC 0620. Wind Symphony.
Half credit each semester. A practical study of the wind band repertory from Mozart to the present, offered through coaching, rehearsals, and performances. Enrollment is by audition. Restricted to skilled instrumentalists. Instructor permission required.
Fall MUSC0620 S01 16210 W 6:00-8:20PM(17) (M. McGarrell)
Fall MUSC0620 S01 16210 M 6:00-7:20(17) (M. McGarrell)

MUSC 0621. Wind Symphony.
See Wind Symphony (MUSC 0620) for course description.
Spr MUSC0621 S01 25517 W 6:00-8:20PM(14) (M. McGarrell)
Spr MUSC0621 S01 25517 M 6:00-7:20(14) (M. McGarrell)

MUSC 0630. Jazz Band.
Half credit each semester. A practical study of jazz from the 1920s to the present through coaching, rehearsals, and performances. Seminars on arranging, ear training, and improvisation are conducted for interested students but the focus is on performance. Enrollment is by audition. Restricted to skilled instrumentalists and vocalists. Instructor permission required.
Fall MUSC0630 S01 16212 Th 6:10-7:20(15) (M. McGarrell)
Fall MUSC0630 S01 16212 M 7:30-8:50PM(15) (M. McGarrell)
Fall MUSC0630 S02 16213 T 8:00PM-9:20PM(05) (M. McGarrell)
Fall MUSC0630 S03 16214 W 2:00-3:20(07) (M. McGarrell)
Fall MUSC0630 S04 16215 W 4:00-5:20(17) (M. McGarrell)
Fall MUSC0630 S05 16216 F 4:00-5:20(14) (M. McGarrell)

MUSC 0631. Jazz Band.
See Jazz Band (MUSC 0630) for course description.
Spr MUSC0631 S01 25519 Th 6:10-7:20(13) (M. McGarrell)
Spr MUSC0631 S01 25519 M 7:30-8:50PM(13) (M. McGarrell)
Spr MUSC0631 S02 25520 T 8:00PM-9:20PM(13) (M. McGarrell)
Spr MUSC0631 S03 25521 W 2:00-3:20(13) (M. McGarrell)
Spr MUSC0631 S04 25522 W 4:00-5:20(13) (M. McGarrell)
Spr MUSC0631 S05 25523 F 4:00-5:20(13) (M. McGarrell)

MUSC 0640. Ghanaian Drumming and Dancing Ensemble.
A dynamic introductory course on drumming, dancing, and singing of Ghana and the diaspora. Students learn to perform diverse types of African music, including Ewe, Akan, Ga, and Dagomba pieces on drums, bells, and shakers. No prerequisites. May be repeated for credit. Enrollment limited to 15. Instructor permission required.
Fall MUSC0640 S01 16217 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 25524 W 5:00-7:20(14) (M. Obeng)

MUSC 0645. Brazilian Choro Ensemble.
Half credit each semester. Students will play this popular Brazilian style, which emerged in the late 19th century and is often compared to early jazz. Classes run according to the traditional roda model, a structured jam session where performers read through, improvise upon, and hone their abilities to play familiar tunes. Prior familiarity with choro music not required, but some instrumental expertise is; ability to read notation preferred. Typical instruments include guitar, cavaquinho (Brazilian ukulele), mandolin, flute, and pandeiro (Brazilian tambourine), but others are welcome to participate on instructor approval, as are performers interested in learning these. Enrollment limited to 20.
Fall MUSC0645 S01 16225 M 5:30-7:00(15) (C. Tucker)

MUSC 0646. Brazilian Choro Ensemble.
Half credit each semester. Students will play this popular Brazilian style, which emerged in the late 19th century and is often compared to early jazz. Classes run according to the traditional roda model, a structured jam session where performers read through, improvise upon, and hone their abilities to play familiar tunes. Prior familiarity with choro music not required, but some instrumental expertise is; ability to read notation preferred. Typical instruments include guitar, cavaquinho (Brazilian ukulele), mandolin, flute, and pandeiro (Brazilian tambourine), but others are welcome to participate on instructor approval, as are performers interested in learning these. Enrollment limited to 20.
Spr MUSC0646 S01 25526 M 5:30-7:00(13) (C. Tucker)

MUSC 0650. Javanese Gamelan.
Half credit each semester. Instruction, rehearsals, and performances in the gamelan music of Java, on instruments owned by the department. No prerequisites. Enrollment limited to 18 students.
Fall MUSC0650 S01 16218 T 6:00-8:50PM(05) (I. Harjito)

MUSC 0651. Javanese Gamelan.
See Javanese Gamelan, MUSC0650, for course description. Enrollment limited to 18 students.
Spr MUSC0651 S01 25525 T 6:00-8:50PM(12) (I. Harjito)

MUSC 0670. Old-Time String Band.
Half course each semester. Instruction and ensemble playing. Music taught by ear. American (southern Appalachian Mountain) traditional music on violin (fiddle), 5-string banjo, mandolin, and guitar. Enrollment limited to 20 students.
Fall MUSC0670 S01 16219 T 7:00-8:50PM(18) (S. Astrausky)

MUSC 0671. Old-Time String Band.
See Old-Time String Band (MUSC 0670) for course description. Enrollment limited to 20 students.
Spr MUSC0671 S01 25527 T 7:00-8:50PM(12) (S. Astrausky)

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 16220 Arranged (P. Phillips)

MUSC 0681. Chamber Music Performance.
See Chamber Music Performance (MUSC 0680) for course description. Spr MUSC0681 S01 25528 Arranged (P. Phillips)

Half credit each semester. Restricted to skilled musicians. Openings are limited. Enrollment and re-enrollment is by audition and jury. Lessons are given by consultants to the Applied Music Program. A fee is charged for enrollment. Copies of the Applied Music Program Guidelines giving detailed information are available online at www.brown.edu/music. May be repeated up to four times for credit.

A history of western European music to Monteverdi's Orfeo (1607), with emphasis on the analysis of individual works supported by reading and listening. Among the major composers studied are Byrd, Dufay, Josquin, Machaut, and Palestrina. Strongly recommended for freshmen and sophomores considering a concentration in music. Limited to students who can read music. Prerequisite: MUSC 0550 or permission of instructor.
A history of European and American art music from Beethoven’s Ninth Symphony to the Postmodernists. Prerequisite: MUSC 0550 or permission of instructor.  
Fall MUSC0930 S01 16089 TTh 1:00-2:20(10) (A. Mueller)

MUSC 1010. Advanced Musicianship I.  
Training in advanced musicianship skills relevant to Western art music from the sixteenth Century to the present, including sight singing, ear training, score reading, keyboard harmony, improvisation, and musical transcription. Prerequisite: MUSC 0560 with a grade of B, or permission of the instructor.  
Fall MUSC1010 S01 16084 MWF 2:00-2:50(07) (A. Cole)

MUSC 1011. Advanced Musicianship II.  
Continuation of MUSC 1010. Prerequisite: MUSC 1010 or permission of the instructor.  
Spr MUSC1011 S01 25349 MWF 2:00-2:50(07) (A. Cole)

MUSC 1020. Modal Counterpoint.  
An introduction to contrapuntal techniques of the 16th century with particular attention to the music of Lassus and Palestrina. Two hours per week of ear training and sight singing. Prerequisite: MUSC 0560.  
Fall MUSC1020 S01 16088 TTh 10:30-11:50(13) (S. Lubkowski)

MUSC 1050. Advanced Music Theory II.  
A study of theories of Western art music since Debussy. Exercises in analysis and composition, focusing on works of Debussy, Stravinsky, Schoenberg, Webern, Bartok and Ives. Students give presentations on selected later composers. Prerequisite: MUSC 0560 with grade of B, or the equivalent.  
Spr MUSC1050 S01 25879 MWF 11:00-11:50(04) (B. Fugate)

MUSIC 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 with grade of B, or the equivalent.  
Fall MUSC1100 S01 16096 TTh 2:30-3:50(11) (S. Lubkowski)

MUSC 1110. Seminar in Composition.  
Finding a personal voice as a composer. Assignments develop familiarity with large forms and increasingly complex structures. Analyses of contemporary compositions elucidate issues of aesthetic and political stance inherent in compositional activity and teach technical facility and range of expression. Problems of rehearsal and performance for new music are considered. Prerequisite: MUSC 0560 and 1100, or permission of the instructor. Enrollment limited to 20 students.  
Spr MUSC1110 S01 25434 W 3:00-5:30(14) (S. Lubkowski)

MUSC 1130. Jazz Composition and Arranging.  
A review of jazz theory topics, including rhythmic structures, scales and modes, harmonic progressions and substitutions, improvisation techniques, forms and development. Weekly writing assignments for two to five parts with rhythm section accompaniment. Students compose and orchestrate three works for small and large jazz ensembles. Guest composers review students' compositions and various Brown jazz bands rehearse and record them. Prerequisites: MUSC 0550.  
Spr MUSC1130 S01 25365 Th 4:00-6:30(17) (M. McGarrell)

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.  
Fall MUSC1200 S01 25359 TTh 10:30-11:50(09) (J. Rovan)

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 16092 TTh 1:00-2:20(10) (J. Rovan)

MUSC 1240B. Narrative and Immersion.  
A production course examining the potentials for engagement in new media, drawing on narrative techniques to establish engagement in immersive works. Students will be introduced to cinematic concepts, interactive technologies, multi-channel video and surround sound environments. Classes will consist of viewing and analysis of exemplary work, discussion of readings, critiques of student projects, and technical workshops on Max/Jitter. Class members should have completed advanced work in film/video, digital sound, and/or creative writing. Open to upper-level undergraduate and graduate students. The class list will be determined after the first class, by permission of instructor.  
S/NC Spr MUSC1240B S01 25348 W 1:00-4:50(10) (T. Winkler)

MUSC 1240F. Circuit Bending and Hardware Hacking as Musical and Artistic Expression.  
Creative experimentation with hardware electronics and re-appropriated technologies is the main focus of this course. No prior experience of electronics is required. Instead, we will build a range of simple electronic circuits and explore a variety of strategies to animate and interpret pre-existing electronic devices. Students will then develop individual instruments and/or performance environments and engage in a number of solo and collaborative projects. The aesthetics of handmade electronic music and post-digital performance practice will be foregrounded throughout. Permission of instructor is required.  
Fall MUSC1240F S01 16099 Th 4:00-6:30(02) (J. Ferguson)

MUSC 1240G. Topics in New Media Theory and Production: Post-Vernacular Composition/'Pop Music’ Gone Feral.  
This seminar explores the fertile creative territory found around the more adventurous edges of ‘popular’ musics. We will focus on non-notated contemporary composition, but will not be restricted to the recording studio, or to the production of ‘fixed’ works. The idea of post-vernacular is utilised to challenge the view that vernacular musics are only oriented towards commercialism and mass popularity. It seeks to extend and develop the inherently experimental dimensions of much vernacular music practice. Students will respond to increasingly open-ended assignment briefs, and explore cultural and aesthetic considerations via a portfolio of practical and theoretical work. Written permission.  
Spr MUSC1240G S01 25366 Th 4:00-6:30(17) (J. Ferguson)

This is an interdisciplinary production course in making pieces, systems, and performances that play with the limits of possibility. Drawing from science fiction and speculative practices in various media, we explore how myth and technology have shaped current world-views and create speculative projects of our own—making (and faking) new myths and technologies for shaping the future. Musical robots, network interplays, digital gardens, living rooms, automated companies, virtual worlds, and non-technical performances are all possible projects. No prerequisites. All technologies for shaping the future. Musical robots, network interplays, digital gardens, living rooms, automated companies, virtual worlds, and non-technical performances are all possible projects. No prerequisites. All

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 16585 MWF 10:00-10:50(03) (J. Moses)

MUSC 1640D. Opera: History, Theory, Practice.
This seminar will analyze the history, theory, and practice of opera in its textual (words and music), and performative (in the theater and in society) dimensions. We will focus paradigmatic works of Mozart, Verdi, and Wagner alongside key works in philosophy, cultural theory, and gender/performance/oppera studies. We will also discuss the genesis and implementation of key productions. In addition, each student will select a 20th or 21st-century work for individual research and presentation to the group.

Fall MUSC1640D S01 16513 W 3:00-5:30(17) (M. Obeng)

Film has long attracted artists working outside the mainstream. Yet most surveys of music and film still privilege Hollywood cinema and the classical film "underscore" as the exemplar of cinematic multimedia. In this course, we will set this important tradition within a wider historical narrative that also embraces avant-garde and underground genres, from abstract animation and the city symphony to graphical sound and found-footage films. And in weekly special screenings ranging from opera films to backstage musicals to "mock rockumentaries," we will examine films that self-consciously thematize their own music, or in which music itself becomes a character in the narrative.

Fall MUSC1645 S01 16674 Th 4:00-6:30(02) (A. Mueller)

MUSC 1662. Music and Childhood in the Western Tradition.
This seminar examines significant moments in the history of children as creators, performers, consumers, and subjects of music in the Western tradition. From Mozart to Michael Jackson, medieval psalmody to Stockhausen, we will survey the enlisting of children, childhood, and the childlike across a range of performance contexts and pedagogical, aesthetic, and cultural-political agendas. We will sharpen our critical awareness of the ways Western music mediates negotiations of childhood agency, innocence, and authenticity. For their final project, students may work with a historical item of children's musical culture, or undertake a "mini-ethnography" of a local children's music program or ensemble.

Spr MUSC1662 S01 26993 TTh 2:30-3:50(11) (A. Mueller)

MUSC 1710. Choral Conducting.
An introduction to the art of conducting, with emphasis on choral training. A study of the relationship of gesture to sound will be combined with a survey of the choral repertoire, beginning with Gregorian Chant and covering renaissance motets, masses and madrigals, Baroque works with instruments, excerpts from Mozart's vespers, 19th-century Romantic parsons, and selected 20th-century. Issues of basic vocal production, warm-ups, rehearsal planning, editing, programming and concert production will also be included. Prerequisite: MUSC 0400 or 0550. Written permission required. May be repeated for credit.

Fall MUSC1710 S01 16065 M 3:00-5:30(15) (L. Jodry)

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.

Fall MUSC1900 S01 16087 TTh 9:00-10:20(08) (C. Tucker)

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 0500 or instructor permission. DPLL Spr MUSC1932 S01 25360 TTh 10:30-11:50(09) (K. Miller)

With a musical culture that ranges from roots sambu to favela funk, and from the music of indigenous Amazonian peoples to the neo-African sounds of candomblé ritual, Brazil's soundscape rivals its social and geographic diversity. This course provides an introduction to the "erudite," traditional, and mass-popular sounds of Brazil, emphasizing their role in creating and contesting visions of nationhood and Brazilian society over the twentieth century. There are no prerequisites, but a background in either music or Latin American studies will greatly aid students' progress in the course. Open to sophomores, juniors, and seniors. DPLL LILE Fall MUSC1935 S01 16097 TTh 2:30-5:30(11) (C. Tucker)

MUSC 1937. Dancing the African Diaspora.
This course investigates the politics of movement, across oceans and dance floors, at the rich intersection of African Diaspora and Dance Studies. We examine the relationship between dance, movement, gesture and music in the expressive practices of the African Diaspora. Students will engage with theoretical and ethnographic approaches to transnationalism, music, performance and the body, and race and gender, alongside multimedia and experiential workshops. Espousing a broad geographical focus, we will explore music and dance practice from Chicago's clubs to the Broadway stage to the streets of Rio and Cape Town. No previous musical knowledge required. Enrollment limited to 20.

Spr MUSC1937 S01 25923 TTh 9:00-10:20(08) (F. Inglese)

MUSC 1950. Transcription and Analysis of Jazz.
Transcriptions from major jazz recordings are made by the students. The personal styles of the musicians are defined through analysis in the context of the various trends in jazz history. The transcriptions are analyzed within the parameters of rhythm and harmonic structures, tone quality, motivic design, and idiomatic performance. Singing, ear-training, and dictation are used to develop transcription skills. Instructor permission required.

Spr MUSC1950 S01 25344 Th 12:00-2:50(10) (E. Tomassi)

Students with experience in African and related musical traditions perform drumming, dancing, and singing of Ghana and the diaspora. Focus on a more challenging repertoire with emphasis on multi-part, lead, and improvisational playing. Prerequisite: audition. May be repeatable for credit. Instructor permission required. Enrollment limited to 15 students.

Fall MUSC1960 S01 16221 W 7:30-10:00PM(17) (M. Obeng)

Students with experience in African and related musical traditions perform drumming, dancing, and singing of Ghana and the diaspora. Focus on a more challenging repertoire with emphasis on multi-part, lead, and improvisational playing. Prerequisite: audition. May be repeatable for credit. Instructor permission required. Enrollment limited to 15 students.

Spr MUSC1961 S01 25529 W 7:30-10:00PM(14) (M. Obeng)

Directed undergraduate research for advanced students. Prerequisite: permission of the instructor. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 2000. Theory and Method in Ethnomusicology. This core seminar offers a graduate-level survey of the discipline of ethnomusicology and its history, building on previous coursework in ethnographic methods and the history of anthropological theory. Students will complete independent research projects as well as shorter assignments geared to professional development (e.g., exam field proposal, scholarly book review, historical investigation of the Society for Ethnomusicology). Prerequisites: MUSC 1900 and ANTH 2000 or instructor permission.

MUSC 2090D. Sound Studies. Explores sound studies through readings of exemplary texts and discussions of the key debates that enliven this interdisciplinary field of inquiry. Drawing on philosophical, musicological, anthropological, and other kinds of writings, it explores issues like the way that relations between sound, noise, silence, and music have formed in different cultures and different historical periods; ideological structures that determine the place of sound in artistic practice and in everyday life; the power relations that are implicated in the design of local soundscapes; and the place of aural perception within the sensorium, among other potential topics. Enrollment limited to graduate students.

MUSC 2220. Designing and Playing Alternative Controllers. This seminar will explore the science and aesthetics of designing alternate controllers for musical performance. Topics will include basic electronics and hardware prototyping, instrument construction, theories of gesture, human-computer interface issues, and the challenges of mapping sensor data to meaningful musical parameters. Previous experience with MaxMSP or other real-time programming required. Permission of instructor required.

MUSC 2230. Composing and Improvising with Real-Time Systems. In probing the relationship between humans, interfaces, and sonic materials, this seminar will consider: how useful are established notions of composition and improvisation in a contemporary ‘real-time’ age? The overall aim is to develop conceptual discussion and practical experimentation, which will culminate in (at least) two concerts and a variety of web-based outputs, as well as a short piece of reflective writing. It is possible to navigate this course using a variety of software/hardware systems (Ableton Live, Max, PD, turntables, home-brew electronics, etc); and a diverse approach to a variety of technologies is highly encouraged. Fall MUSC2230 S01 16086 M 3:00-5:30(13) (T. Winkler).

MUSC 2270A. Exploring Technologically Mediated Performance via Attali's 'Noise: The Political Economy of Music'. This course configures Attali’s notions of ‘representing’, ‘repeating’, and ‘composing’ as theoretical catalysts for the development of contemporary creative practice. The course is structured around seminars, collaborative ensemble work, and individual projects. We negotiate Attali’s text in its entirety and realize appropriate responses in a variety of formats, including: performance, installation/intervention, audio/video documentation. Additional short readings and presentations enrich critical discussion and practical activity. This course is intended to follow on from various MEME courses such as 1210, 1240F, 1240G, 2220, 2230, 2280. Enrollment is restricted to fourteen. Permission of instructor is required. Spr MUSC2270 S01 25754 W 3:00-5:30(14) (J. Ferguson).

MUSC 2270B. Performance in a Virtual World. A co-taught production course exploring emerging technology in the context of live performance, focusing on techniques where the body appears both on stage and on screen. What does it mean to be “live” in a virtual world, and how does that impact movement, interaction and expression? Students participate in a series of hands-on workshops that examine embodied performance using projections, motion capture, video processing, and sound design, along with various interactive and immersive techniques. The course culminates in a public performance of new works created in collaborative groups. Open to graduate and advanced undergraduate students. Permission required. Fall MUSC2270 S01 16530 W 1:00-4:50(06) (T. Winkler).

MUSC 2280. Designing-Large-Scale Multimedia Projects. A production seminar designed for students working on a single, large project in Multimedia and/or Computer Music. The course covers planning and implementation strategies, with group critiques of proposals and works-in-progress. The class structure includes individual lessons for students working on a graduate or undergraduate thesis project. Permission will be granted based upon a questionnaire given in the first class. Spr MUSC2280 S01 25351 M 2:00-4:50(07) (T. Winkler).

MUSC 2450. Exchange Scholar Program.

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

MUSC 2980. Reading and Research. Directed graduate research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

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

Philosophy

PHIL 0010. The Place of Persons. An introduction to the practice of philosophy through the study of key questions concerning the nature of persons and their place in the world. Topics covered will include, ‘Reason and Religion’, ‘The Mind-Body Problem’, ‘Personal Identity’, ‘Free Will, Determinism, and Responsibility’, and ‘The Objectivity of Values’. These topics together constitute some of the core problems of metaphysics. Most thoughtful people have reflected at least some on these issues; many people have quite developed views and intuitions about them. A key aim in the course will be to make these views and options explicit, and to reason carefully about them. WRIT Fall PHIL0010 S01 24366 Th 10:30-11:50(09) (D. Christensen).

PHIL 0030. Skepticism and Knowledge. What is knowledge? What is the extent and basis of one’s knowledge about physical objects, other people, oneself, the future, morality, and religion? WRIT Fall PHIL0030 S01 16537 MW 1:00-1:50(06) (F. Ackerman).

PHIL 0220. Introduction to Philosophy. This course will introduce students to the aims and structure of philosophical reasoning by way of direct engagement with classic and contemporary readings. We will ask (and attempt to answer) several major questions that have occupied philosophers since the discipline’s inception. Students will be evaluated on their ability to propose and critically evaluate arguments which both address these questions and remain grounded in the relevant texts.

PHIL 0230. Human Knowledge and Truth. Science is widely considered our best way of gaining knowledge about the world, and so we believe it deserves a privileged place in our epistemic lives. But is the view that gives science its privileged position correct? If so, why? What is the methodology of science, and does this methodology produce rational and reliable beliefs? And what does it mean to give some belief formation system a privileged position anyway? Why should any belief formation system be privileged over another? We will discuss some
The essential predicate of feminism is that men and women are equal, that each is entitled to all the rights that flow from full personhood and moral agency. Feminism contrasts with sexism—the view, express or implied, that men and women are not equal and shouldn’t have the same rights. Feminism has gained a central place in much of western culture. Nonetheless, there remain philosophical disagreements about the implications of feminism and the extent to which sexism remains in our social and legal institutions and philosophical assumptions. The subject matter of the class will be taken from these areas of disagreement.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0300B S01 26123</td>
<td>TTh 9:00-10:20(08)</td>
<td>(P. Foa)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0350. Ancient Philosophy.
We will discuss the ethics, epistemology, and metaphysics of the principal figures in ancient philosophy from the Presocratics to Aristotle. Emphasis is given to understanding the problems the philosophers were trying to solve and to assessing the arguments for their various positions. Primary readings are from the original sources in translation. WRIT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL0350 S02 16372</td>
<td>MWF 11:00-11:50(04)</td>
<td>(A. Beresford)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0360. Early Modern Philosophy.
An introduction to central themes in Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. Major topics include: reason, experience, and knowledge; substance and the nature of the world as it really is; induction, causation, and the origin of our ideas; skepticism, realism, and idealism. Connections are made with the scientific revolution of the 17th century. There will be discussion and advice on ways to approach philosophical reading, research and writing. WRIT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0360 S01 24190</td>
<td>MWF 10:00-10:50(03)</td>
<td>(C. Larmore)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0400. Marxism.
In the first part of the course, we will examine Marx’s economic, political, and philosophical thought, focusing on his analysis of capitalism. Topics will include: the critique of liberal democracy, and his theory of history. Then in the second part, we will look at some recent attempts to renew and extend the Marxist tradition. WRIT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL0400 S01 14902</td>
<td>MWF 10:00-10:50(03)</td>
<td>(C. Larmore)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0500. Moral Philosophy.
An introduction to ethics, the part of philosophy that is concerned with right and wrong, good and bad, virtue and vice. We will look at some central issues in the field as well as some of the main theories in it. Is an action good or bad because of its anticipated results or regardless of these results? Is it ever right to kill one person to save five? Is relativism true? Is abortion wrong? These would be some of the topics discussed. WRIT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0500 S01 24475</td>
<td>MWF 1:00-1:50(06)</td>
<td>(N. Arpaly)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0540. Logic.
An introduction to perhaps the most fundamental tool of rational thought: deductive logic. Course begins with basic sentential logic, then moves on to deduction, quantification, and prediction. Argumentation and reasoning may also be addressed at times. No previous experience with logic or philosophy is required.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL0540 S01 14904</td>
<td>MWF 12:00-12:50(12)</td>
<td>(J. Schechter)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0650. Psychology and Philosophy of Happiness.
The course explores four fundamental questions about happiness: What is happiness—pleasure, life satisfaction, something else? How is happiness achieved—what are the myths and realties about what conduces to happiness? Can happiness be achieved—are we naturally well suited to be happy? Why pursue happiness—is it sufficient, or even necessary, for a good life? The course examines classic contributions from philosophy and psychology, the two disciplines that have studied happiness most extensively. Team-taught by professors from both philosophy and psychology, it invites students to compare and combine both approaches.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0650 S01 26063</td>
<td>MWF 2:00-2:50(07)</td>
<td>(B. Reginster)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0670. Art, Music, and Science: An Introduction to Aesthetics.
Topics will include: art and representation; art and the emotions; beauty, form, and aesthetic experience; and the definition of art. We will focus especially on the visual arts, though we will consider examples drawn from music as well. We will be looking throughout to understand how empirical research bears on traditional topics in the philosophy of art, drawing from empirical perception science, evolutionary biology, and cognitive neuroscience. The course will be example driven: We will try out philosophical theories against our lived reactions to many dozens of images of visual art, and against our reactions to a number of music selections.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0670 S01 25838</td>
<td>MWF 12:00-12:50(05)</td>
<td>(D. Bennett)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0880. Ethical Themes in the Contemporary American Short Story.
Consideration of contemporary American short stories in terms of their treatment of such philosophical themes as love, loyalty, envy, belief, despair, and charity. Focuses on themes in moral philosophy, rather than themes in social and political philosophy. This course has no prerequisites. WRIT

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL0880 S01 14921</td>
<td>MWF 2:00-2:50(07)</td>
<td>(F. Ackerman)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0990L. Moral Psychology.
We all have notions of good, bad and ordinary people, but reality defies our concepts. Many otherwise "nice"people voted for Hitler. People with stupid views about morality are sometimes better "in practice" than their smart counterparts. The same person may be honest with her husband but dishonest with the IRS. Brave in battle but scared of public speaking. This class will explore this complexity, touching upon topics like free will and rationality, through the work of contemporary philosophers.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0990L S01 24367</td>
<td>M 3:00-5:30(13)</td>
<td>(N. Arpaly)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0990X. Conditionals.
In this seminar we will look at different theories of what "if" means. Is it a truth-functional connective, like the material conditional used in logic? Do sentences of the form "If F, then G" even have truth conditions? Some logic will be very helpful; some familiarity with philosophy of language also helpful. Enrollment limited to 20 juniors and seniors.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL0990X S01 15232</td>
<td>MWF 3:00-5:30(15)</td>
<td>(J. Dreier)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0991H. Medieval Philosophy.
This course is a survey seminar on major philosophical topics in medieval philosophy in the Latin tradition, which spans from about the 5th to the 15th century, with a special concentration on thinkers and texts in the hundred years between 1250 and 1350. The goal is to gain an overall view of the issues that were important to thinkers of this time period and the approaches taken to try to solve them.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr PHIL0991H S01 25454</td>
<td>TTh 9:00-10:20(08)</td>
<td>(R. Najera Carvajal)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 0991I. Plato, Mind, and Moral Psychology.
Concentrating on Plato’s Meno and Gorgias. The first is a small masterpiece, introducing a whole range of issues at the heart of Plato’s work: education and learning, virtue, definition, mathematics, knowledge, philosophical method, and immortality. The Gorgias explores central issues in moral psychology—desire, motivation, psychic harmony, justice and the good—as well as larger questions of rhetoric, philosophy, craft and mere skill; and it is famous for such apparently paradoxical views as that it is better to suffer injustice than to perpetrate it.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL0991I S01 15039</td>
<td>MWF 1:00-1:50(06)</td>
<td>(J. Broackes)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PHIL 1280. History of Moral Philosophy.
The course will focus on Aristotle and Kant, the two most influential figures in the history of moral philosophy. We will examine their principal ethical writings, seeking to evaluate the fundamental similarities and differences in their understanding of moral life and of the purposes of moral philosophy. Attention will also be given to some contemporary treatments of the relations between Aristotle and Kant. Enrollment limited to 40.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
<th>Time</th>
<th>Days</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall PHIL1280 S01 14918</td>
<td>M 3:00-5:30(15)</td>
<td>(C. Larmore)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

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

Spring 2023

PHIL 1640. The Nature of Morality.
Investigates major theories and issues concerning the nature of moral value. Readings from 20th-century authors. Issues include naturalism, supervenience, moral motivation, subjectivity/objectivity of value, skepticism, moral relativism, and moral realism.

Spring 2023

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 2023

PHIL 1660. Metaphysics.
A survey of some major topics in the metaphysics, with a particular focus on radical metaphysical arguments—arguments that call into question our most basic beliefs about the world around us. Examples of questions that we will consider include: Do ordinary objects exist? Is there anything that makes persons distinct from other sorts of objects? Is the future open? In answering these questions we will investigate the nature of composite objects and personal identity, the metaphysics of causation, explanation, and laws of nature, and the ontology of modality and time. Prerequisite: One previous course in philosophy.

WRIT

Fall 2023

PHIL 1670. Time.
Does time flow? What is the difference between the future and the past? Is time travel possible? This course will survey the major topics in the philosophy of time from Augustine’s Confessions and the Leibniz-Clarke correspondence to relativity theory. Along the way we will take up philosophical issues regarding the validity of our perceptions, the nature of causation, determinism, and freedom, and the relationship between science and philosophy. Prerequisite: One previous course in philosophy.

WRIT

Fall 2023

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.

Spring 2023

PHIL 1750. Epistemology.
This course provides a survey of central issues in contemporary epistemology. We will discuss the nature of knowledge, justification, and rationality. Topics include: difficulties with the traditional analysis of knowledge, skepticism about the external world, the nature of empirical justification, the problem of induction, and the epistemology of the a priori.

WRIT

Fall 2023

PHIL 1765. Sense and Reference.
Introduction to issues in philosophy of language and mind relating to sense and reference, including: definite descriptions, proper names, rigid designation and the description theory of names, the internalism–externalism debate, demonstratives (“this,” “that”), and indexicals (“I,” “here”). At least two prior courses in philosophy strongly recommended.

Spring 2023

PHIL 1830. Twentieth-Century Analytic Philosophy.
This course provides an introduction to major philosophers and movements within the analytic tradition. Our focus will be on the groundbreaking work done in the first few decades of the 20th century. We will read selected works of Gottlob Frege, G. E. Moore, Bertrand Russell, Ludwig Wittgenstein, and A.J. Ayer. We will discuss central issues in the philosophy of language, metaphysics, epistemology, and metaethics. One recurring theme will be the nature and correct methodology of philosophy itself.

Spring 2023

PHIL 1855. Incompleteness.
Gödel’s two incompleteness theorems are among the most important results in the history of logic. We will study these results, and explore related topics, by working through some of the classic papers on the subject. Authors to be read include Gödel, Tarski, Feferman, and Visser. Prerequisites: PHIL 0540 or PHIL 1630, or special permission from instructor.

Spring 2023

PHIL 1890E. Anscombe, Foot, Murdoch, Midgley: Some Themes in British Philosophy After Wittgenstein.
Four philosophers of extra-European independence of mind came out of Oxford in the 1940s and had a large impact on philosophy in the second half of the 20th century. Elizabeth Anscombe was a student and editor of Wittgenstein, and author of Intention; Philippa Foot's articles made her perhaps the most admired moral philosopher of the period in Britain; Iris Murdoch in The Sovereignty of Good developed a moral psychology quite opposed to the 'modern' picture of 'man' in Hare and Hampshire; Mary Midgley argued against the displacement of human understanding by scientism and reductionism.

Spring 2023

PHIL 1910D. Schopenhauer’s Ethical Thought.
The course will offer an in-depth introduction to Schopenhauer’s ethical thought, including his criticisms of the notions of unconditional obligation and intrinsic value, his view that compassion is the basis of morality, his conception of compassion in terms of identification with others, his pessimism about the prospects of happiness, understood as fulfillment, and his views on aesthetic contemplation and ascetic resignation as alternatives to fulfillment.

Spring 2023

PHIL 1910E. Hegel’s Metaphysics.
Hegel is famous (or rather infamous) for entertaining and endorsing startling and obscure claims like “Contradiction is the rule of truth,” “The Truth is the whole,” and “What is rational is real, and what is real is rational.” Before one is in the position to evaluate, to criticize (and to dismiss) these claims one has to become familiar with their philosophical background. The aim of the seminar is to find out what is meant by these and why Hegel thought of them as reasonable.

Spring 2023

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.

Spring 2023

PHIL 2040K. The Nature of Reason.
The seminar will focus on different and rival conceptions of reason, both theoretical and practical. Readings mostly from contemporary material, though a few historical texts will also be discussed.

Spring 2023

PHIL 2070J. Measuring Value.
Some things are better than others. Maybe we can also ask, how much better? We will sort out what has to be true for this question to have a real answer, and then think about whether those things are true. Topics include: the aggregation of expected value, value and time, equality and the separateness of person. The main texts will be John Broome’s Weighing Goods and Weighing Lives. Some experience with formal decision theory is helpful, though not required.

Fall 2023
PHIL 2080E. Moral Sentiments.
This course will examine several versions of eighteenth-century "moral sense" approaches to ethics and meta-ethics, and Kant's critique as well as adaptation of it. Moral sense theory will be represented by Francis Hutcheson and Adam Smith; Kantian material will be drawn from his three main books in moral philosophy as well as his lectures on ethics. We will also look at the exchange between Kant and Schiller on the subject of moral feeling. The course will be run as a seminar, with participants responsible for an oral presentation and a research paper.

Spr PHIL2080E S01 24302 M 3:00-5:30(13)  (P. Guyer)

PHIL 2100K. Global Justice.
We will begin with a survey of important pieces in the literature, covering a number of issues in political philosophy from a global perspective. We'll turn in the second half of the course to a close reading of the recent book by Aaron James: Fairness in Practice: A Social Contract for a Global Economy (OUP 2013).

Spr PHIL2100K S01 24486 W 3:00-5:30(14)  (D. Estlund)

PHIL 2110J. Metaphysics, Metametaphysics and Commonsense World Pictures.
Is Metaphysics to be treated as an extension of natural science? Or as a systematic incorporation of everything world-view(s)? Or what? Some debates in a tradition from Aristotle, Frege and Quine—as developed in recent work: including Kit Fine, Ted Sider, E. J. Lowe, and others in three recent collections of essays.

Fall PHIL2110J S01 16451 F 3:00-5:30(14)  (J. Broackes)

PHIL 2140F. Non-Causal Explanations.
In this seminar, we will discuss the nature of explanation. The seminar will focus on non-causal kinds of explanation. We'll look at the role of explanation within mathematics, ethics, and metaphysics. We'll also discuss several epistemological issues concerning explanation. For instance, when does a phenomenon cry out for explanation? Is there a general principle connecting explanation with theory choice? Does possessing an explanation have a distinctive kind of epistemic value over and above the value of knowledge or justification?

Spr PHIL2140F S01 24487 Th 4:00-6:30(17)  (J. Schechter)

PHIL 2190E. Medieval Metaphysics.
A seminar on medieval metaphysical theories, both in the Arabic and Latin traditions, covering topics such as matter, substance, extension and unity.

Fall PHIL2190E S01 16340 Th 4:00-6:30(02)  (R. Najera Carvaja)

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 14914 Arranged  (N. Arpaly)
Spr PHIL2200 S01 24230 Arranged  (C. Hill)

PHIL 2450. Exchange Scholar Program.
Fall PHIL2450 S01 14439 Arranged  'To Be Arranged'
Spr PHIL2450 S01 23807 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 24482 Arranged  (D. Estlund)

PHIL 2800. Dissertation Workshop.
No description available. Undergraduates require instructor permission to enroll.

Fall PHIL2800 S01 14915 Arranged  (J. Schechter)
Spr PHIL2800 S01 24229 Arranged  (D. Christiansen)

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 14440 Arranged  'To Be Arranged'
Spr PHIL2970 S01 23808 Arranged  'To Be Arranged'

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

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

Fall PHIL2990 S01 14441 Arranged  'To Be Arranged'
Spr PHIL2990 S01 23809 Arranged  'To Be Arranged'

PHIL XLIST. Courses of Interest to Philosophy Concentrators.

**Physics**

PHYS 0030. Basic Physics.
Survey of mechanics, electricity, magnetism, optics, and modern physics for concentrators in sciences other than physics—including premedical students or students without prior exposure to physics who require a less rigorous course than PHYS 0050, 0060. Employs the concepts of elementary calculus but little of its technique. Lectures, conferences, and laboratory. Six hours of attendance. Recommended: MATH 0090 or 0100.

Fall PHYS0030 S01 14685 MWF 11:00-11:50(18)  (D. Cutts)
Fall PHYS0030 S02 14686 MWF 12:00-12:50(18)  (D. Cutts)

PHYS 0040. Basic Physics.
Survey of electricity, magnetism, optics, and modern physics for concentrators in sciences other than physics—including premedical students or students without prior exposure to physics who require a less rigorous course than PHYS 0050, 0060. Employs the concepts of elementary calculus but little of its technique. Lectures, conferences, and laboratory. Recommended: MATH 0090 or 0100.

Spr PHYS0040 S01 24034 MWF 11:00-11:50(04)  (D. Cutts)
Spr PHYS0040 S02 24035 MWF 12:00-12:50(05)  (D. Cutts)

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 14700 MW 8:30-9:50(16)  (M. Dorca)

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 24089 MW 8:30-9:50(02)  (M. Dorca)

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.

Fall PHYS0070 S01 14715 MWF 9:00-9:50(16)  (C. Tan)

PHYS 0113. Squishy Physics.
A freshman seminar to explore everyday applications of physics. It offers practical training on project based learning. The course involves hands-on experimentation, data analysis and presentation. The course is designed for students interested in any field of science with no pre-requisite. The topics covered include motion, forces, flow, elasticity, polymers, gels, electricity, energy, etc. Students will be guided to work on several projects over the semester. They are required to report their projects in both written and oral reports. There is no exam for the course. FYS
**PHYS 0160. Introduction to Relativity and Quantum Physics.**
A mathematically rigorous introduction to special relativity and quantum mechanics. The second course in the three-sequence semester (PHYS 0470 being the third) for those seeking the strongest foundation in physics. Also suitable for students better served by an introduction to modern physics rather than electromagnetism. Lectures, conferences, and laboratory. Six hours of attendance. Prerequisite: PHYS 0070 or 0050. Recommended: MATH 0180 or 0200. 
Spr PHYS0113 S01 25942 2:30-3:50(11) (J. Tang)

**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 PHYS0220 S01 24104 TTh 10:30-11:50(09) (G. Tucker)

**PHYS 0270. Introduction to Astronomy.**
A complete survey of basic astronomy, more rigorous than is offered in PHYS 0220. Requires competence in algebra, geometry, trigonometry, and vectors and also some understanding of calculus and classical mechanics. Laboratory work required. This course or an equivalent required for students concentrating in astronomy. The course includes conferences and evening laboratory sessions. 
Fall PHYS0270 S01 14722 TTh 1:00-2:20(10) (G. Tucker)

**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; or approved equivalents. 
Fall PHYS0470 S01 14724 MW 10:00-10:50(03) (J. Tang)

**PHYS 0500. Advanced Classical Mechanics.**
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 PHYS0500 S01 24105 MW 10:00-10:50(03) (M. Spradlin)

**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. Emphasis on laboratory techniques, statistics, and data analysis. Three lecture/discussion hours and three laboratory hours each week. Required of all physics concentrators. Prerequisites: PHYS 0070, 0160 or 0050, 0060; 0470. WRIT 
Spr PHYS0560 S01 24106 MW 11:00-11:50(04) (G. Xiao)

**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). Pre-requisites: PHYS 0060 or 0160, MATH 0180, 0200 or 0350, or consent of the instructor. 
Fall PHYS0720 S01 14736 MW 11:00-11:50(04) (A. Korotkov)

**PHYS 0790. Physics of Matter.**
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 PHYS0790 S01 14738 TTh 9:00-10:20(08) (X. Ling)

**PHYS 1100. Introduction to General Relativity.**
An introduction to Einstein’s theory of gravity, including special relativity, spacetime curvature, cosmology and black holes. Prerequisites: PHYS 0560 and MATH 0520 or MATH 0540 or equivalent, or permission of the instructor. Recommended: PHYS 0720. Offered every other year. 
Spr PHYS1100 S01 24107 TTh 1:00-2:20(10) (A. Jevicki)

**PHYS 1280. Introduction to Cosmology.**
The course presents an introduction to the study of the origin, evolution and contents of the Universe. Topics include the expansion of the Universe, relativistic cosmologies, thermal evolution, primordial nucleosynthesis, structure formation and the Cosmic Microwave Background. Prerequisites: PHYS 0160, MATH 0190, MATH 0200, or MATH 0350, or instructor permission. 
Fall PHYS1280 S01 14740 TTh 1:00-2:20(10) (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 14741 MWF 9:00-9:50(16) (V. Mitrovic)

**PHYS 1420. Quantum Mechanics B.**
See Quantum Mechanics A, (PHYS 1410) for course description. 
Spr PHYS1420 S01 24108 MWF 9:00-9:50(02) (D. Feldman)

**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 14743 Th 2:30-3:50(11) (X. Ling)

**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 14744 TTh 10:30-11:50(13) (D. Lowe)

**PHYS 1560. Modern Physics Laboratory.**
A sequence of intensive, advanced experiments often introducing sophisticated techniques. Prerequisites: PHYS 0470, 0500 and 0560; and MATH 0520, 0540 or PHYS 0720; or approved equivalents. WRIT 
Spr PHYS1560 S01 24109 TTh 9:00-10:20(08) (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++. WRIT 
Spr PHYS1600 S01 24110 MW 8:30-9:50(02) (M. Narain)

**PHYS 1610. Biological Physics.**
Introduction on structures of proteins, nucleic acids, and membranes; electrostatics and hydration; chemical equilibrium; binding affinity and kinetics; hydrodynamics and transport; cellular mechanics and motions; biophysical techniques including sedimentation, electrophoresis, microscopy and spectroscopy. Suitable for undergraduate science and engineering majors and graduate students with limited background in life science. Prerequisites: MATH 0180. 
Fall PHYS1610 S01 14746 TTh 2:30-3:50(11) (G. Ying)

**PHYS 1970C. String Theory for Undergraduates.**
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. 
Fall PHYS1970C S01 14836 MW 1:00-2:20(06) (A. Jevicki)
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 14747 Th 4:00-6:30(02) (G. Xiao)
Spr PHYS2010 S01 24111 W 3:00-5:30(14) (R. Gaitskell)

An introduction to methods of mathematical analysis in physical science and engineering. The first semester course includes linear algebra and tensor analysis; analytic functions of a complex variable, integration in the complex plane; potential theory. The second semester course includes probability theory; eigenvalue problems; calculus of variations and extremum principles; wave propagation; other partial differential equations of evolution.
Fall PHYS2020 S01 14749 T 4:00-6:30(18) (M. Dorca)

PHYS 2030. Classical Theoretical Physics I.
No description available.
Fall PHYS2030 S01 14750 Th 9:00-10:20(08) (D. Feldman)

PHYS 2040. Classical Theoretical Physics II.
No description available.
Spr PHYS2040 S01 24112 TTh 10:30-11:50(09) (J. Kosterlitz)

PHYS 2050. Quantum Mechanics.
No description available.
Fall PHYS2050 S01 14751 MWF 10:00-1:50(03) (R. Pelcovits)

PHYS 2060. Quantum Mechanics.
No description available.
Spr PHYS2060 S01 24113 MWF 10:00-10:50(03) (D. Lowe)

PHYS 2070. Advanced Quantum Mechanics.
No description available.
Fall PHYS2070 S01 14753 TTh 1:00-2:20(10) (A. Volovich)

PHYS 2140. Statistical Mechanics.
No description available.
Spr PHYS2140 S01 24114 TTh 1:00-2:20(10) (M. Dorca)

PHYS 2170. Introduction to Nuclear and High Energy Physics.
No description available.
Spr PHYS2170 S01 24115 MWF 1:00-1:50(06) (G. Landsberg)

PHYS 2280. Astrophysics and Cosmology.
This course serves as a graduate-level introduction to modern cosmology, including current topics of research on both observational and theoretical fronts. Topics include relativistic cosmology, inflation and the early Universe, observational cosmology, galaxy formation. Prerequisites for undergraduates: PHYS 1280 and PHYS 1530.
Spr PHYS2280 S01 24116 MWF 2:00-2:50(07) (S. Koushiappas)

PHYS 2300. Quantum Theory of Fields I.
No description available.
Spr PHYS2300 S01 24117 TTh 2:30-3:50(11) (A. Volovich)

PHYS 2320. Quantum Theory of Fields II.
No description available. Instructor permission required.
Fall PHYS2320 S01 14754 TTh 10:30-11:50(13) (M. Sopradian)

PHYS 2340. Group Theory.
Offered every other year.

Political Science

POLIS 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 POLIS0010 S01 15049 MWF 6:30-7:50(17) (W. Schiller)

POLIS 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 includes Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Marx, and J.S. Mill. WRIT
Spr POLIS0110 S01 24387 TTh 6:40-8:00PM(12) (A. Gourevitch)

POLIS 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 POLIS0200 S01 24388 TTh 10:30-11:50(09) (M. Cammett)
**Course Descriptions**

**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 15061 TTh 2:30-3:50(11) (J. Branch)

**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 15058 TTh 10:30-11:50(13) (T. Teo)

**POLS 0820D. Freedom.**
What is freedom? Is it important? How do we know what? What should we do about it? We will analyze the different conceptions of liberty - liberal egalitarian, classical liberal, Marxist, and fascist views. We will determine how the various aspects of freedom - political, personal, psychological, economic, and moral - are complementary, and determine what sorts of institutions promote or undermine these aspects. Enrollment limited to 20 first year students. FYS WRIT

Spr POLS0820D S01 24391 T 4:00-6:30(16) (D. Layman)

**POLS 0820E. Slavery and Political Philosophy.**
This course looks at the various ways in which the experience of slavery has shaped political philosophy and political thinking from its origins. In what ways has the experience of freedom not just been tied to but presupposed the slavery of others? What ways of thinking about freedom are or are not compatible with the external enslavement of others? What kinds of ideas had to change for a systematic critique of slavery to develop? Have we overcome all forms of slavery or are their forms that are still with us? FYS

Spr POLS0820E S01 25494 M 3:00-5:30(13) (A. Gourevitch)

**POLS 0820L. Philosophy of the American Founding.**
In framing our political system in the Constitution, who did the Founders rely on for their theoretical framework? In this course, we will explore the works of Montesquieu, Adams, Franklin, Jefferson, Madison, Hamilton, and other contributors to the Constitution. Enrollment limited to 20 first year students. FYS

Fall POLS0820L S01 15071 M 3:00-5:30(15) (W. Schiller)

**POLS 0820Q. Politics of American Federal Holidays.**
Why were ten national holidays created? The answer requires a review of key events in American political history from 1775 to 1983. Why was the Civil War pivotal? Which presidents were most important in generating support for special days? Conflicts occurred not only in creating the day but which day would be the holiday. Enrollment limited to 20 first year students. FYS

Fall POLS0820Q S01 15622 F 3:00-5:30(14) (R. Cobb)

**POLS 0920A. Bleeding Heart Libertarianism.**
What is libertarianism? In what sense can libertarians claim to combine the best of the “right” with the best of the “left”? Why do libertarians emphasize private property? Why are they skeptical of political agency? Are libertarians anti-democratic? Can they care about social justice? How do libertarians approach problems such as racism, sexism, militarism, state surveillance, global inequality, and environmental sustainability? This course will consider such questions from a variety of texts in the libertarian tradition, contemporary and classical. WRIT SOPH

Fall POLS0920A S01 16030 W 3:00-5:30(17) (J. Tomasi)

**POLS 1080. Politics of Transportation Policy.**
Three transportation modes are emphasized: planes, trains, and automobiles. Three sets of actors are studied: Congress, pressure groups, and governmental agencies. The focus is on historical patterns of usage and current policy questions including airlines vs. airports, problematic drivers, and cars vs. transit. Background in the rudiments of American politics is desired.

Fall POLS1080 S01 15018 MWF 8:30-9:50(16) (R. Cobb)

**POLS 1090. Polarized Politics.**
Focus will be on growing partisan polarization in American politics. Existence of polarization in institutions like House of Representatives, Senate, the presidency, federal courts, media, and religion will be examined. Emphasis will include the roles of political elites, non-elites, lobbyists, money in politics, red states/blue states, House and Senate rules, particular pressures created by budget, domestic, foreign policy, defense and homeland security issues. Requires extensive reading, detailed paper, take-home final exam and active class participation. Expectation to remain informed about current events as they apply to partisan polarization and to weigh the impacts of polarized politics on a democratic nation.

Fall POLS1090 S01 16374 TTh 1:00-2:20(10) (R. Arenberg)

**POLS 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 Roosevelt through George W. Bush, and an exploration of the future challenges facing the winner of the 2012 Presidential election.

Spr POLS1130 S01 24382 TTh 10:30-11:50(09) (W. Schiller)

**POLS 1150. Prosperity: The Ethics and Economics of Wealth Creation.**
What is prosperity? Whom does prosperity benefit? Which institutions and attitudes produce prosperity? What is the relation of prosperity to other values such as efficiency, happiness, equality, fairness, religious faith or personal freedom? This course explores the problem of prosperity from a variety of disciplinary perspectives: philosophical, economic, historical, religious, and literary. No Prerequisites. Freshmen welcome.

Fall POLS1150 S01 15070 TTh 2:30-3:50(11) (J. Tomasi)

**POLS 1160. Constitutional Law: Governmental Powers.**
This course examines governmental powers under the United States Constitution, addressing the powers of Congress, the President, and the courts, as well as the relationship between the national and state governments. The primary reading materials will be leading Supreme Court cases, supplemented by additional reading materials on history and legal theory. The course will consider the role of the courts in enforcing constitutional principles in a democratic system, as well as theories of constitutional interpretation and constitutional change.

Fall POLS1160 S01 15059 TTh 10:30-11:50(13) (S. Calabresi)

**POLS 1210. Latin American Politics.**
Focuses on political and economic transformation in contemporary Latin America. Special attention is given to the processes of market-oriented economic reforms and democratization that have swept the region during the last twenty-five years. Includes in-depth country case studies where key themes can be discussed and elaborated.

Fall POLS1210 S01 15046 MWF 11:00-11:50(04) (R. Snyder)

**POLS 1260. Maps and Politics.**
How do maps affect politics, and vice versa? Maps fundamentally shape the way that we see our world and how we interact politically, economically, and socially, but maps are also shaped by political actors, interests, and institutions. This course will consider historical and contemporary issues that link maps and politics, including the connections between mapping and nation-states, colonialism, warfare, democratic politics, and indigenous rights. The course is suitable for all students with an interest in the topic.

Spr POLS1260 S01 24381 MWF 11:00-1:50(06) (J. Branch)

**POLS 1270. Middle East Politics.**
For decades, the Middle East was widely perceived as a bastion of authoritarianism and a hotbed of identity politics and political violence. What has sustained these perspectives and how has the Arab Spring challenged them? This course combines analytical approaches with concrete case studies to provide an overview and critical understanding of regional developments. Students will gain insights on key questions and debates in Middle East politics. Topics include "persistent authoritarianism" in the Middle East, Political Islam, sectarian violence, economic development, and social mobilization. The course is suitable for students with all levels of knowledge on the region.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
POLS 1280. Politics, Economy and Society in India.
This course will concentrate on three aspects of the "Indian experience": democracy, ethnic and religious diversity, and political economy. With a brief exception, India has continued to be democratic since 1947. No developing country matches India's democratic record. Second, remarkable cultural, ethnic and religious diversity marks India's social landscape, and influences its politics. Third, Indian economy has of late been going through a serious economic transformation, drawing comparisons with China. Is the comparison valid? Spr POLS1280 S01 24442 TTh 2:30-3:50(11) (A. Varshney)

POLS 1290. The Rise of China.
This course examines the causes and consequences of China's societal transformation and emergence as a global power. Employing perspectives from comparative politics, international relations, and economics, the course explores the connections between China's domestic transformation and its integration with the global system. Lectures and readings cover the historical antecedents of China's rise, the contemporary relationship between state and citizen, the nature of China's global competitiveness, and likely future avenues for socio-political change.
Fall POLS1315 S01 16194 TTh 9:00-10:20(08) (K. Tate)

POLS 1360. 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 24379 TTh 2:00-2:50(07) (K. Tate)

POLS 1415. Classics of Political Economy.
Traces the most important classical statements of political economy through consideration of the major contributions to the "political" study of the economy from the seventeenth century to the present: Locke, Ricardo, Smith, Rousseau, Mill, Bentham, Marx, Mill, Marshall, Keynes, Hayek, Friedman, and Lucas. By mapping the parallel evolution of the liberal/capitalist economy and the liberal-democratic notion of the individual, both a product of and a producer within this economy, the course will demonstrate the political nature of economics and the economic bases of politics. First year students require instructor permission. Not open to students who have taken POLS 1822B.
Fall POLS1415 S01 15060 TTh 1:00-2:20(10) (M. Blyth)

POLS 1500. The International Law and Politics of Human Rights.
Course introduces students to the law and politics of international human rights; examines the gradual 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 obstacles to such promotion. It 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.
Fall POLS1500 S01 15045 MW 10:00-11:50(03) (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.
Spr POLS1600 S01 24385 TTh 6:40-8:00PM(12) (N. Miller)

POLS 1730. International Political Economy.
Who benefits from international trade, and what are its social and environmental consequences? How can rich nations help poor ones develop, and to what extent should they try? What are the political dimensions of the flow of oil and natural resources? This course is designed to provide students with a broad introduction to the field of international political economy to help address questions like these ones. The course examines the fundamentals of international trade, finance, development, and investment policies. Must have basic understanding of statistics, macroeconomics, and international politics. Pre-req of POLS 0500 or equivalent training in statistics.
Fall POLS1730 S01 15122 TTh 6:40-8:00PM(05) (J. Colgan)

POLS 1740. Politics of Food.
How do politics and public policy shape the nature of farming and the price of food in the US? What is the extent of hunger and malnutrition in the country, and how to politics and public policy shape the responses to these issues? How well does government regulate the safety and healthfulness of food? This course will draw on a combination of case studies and scholarly work to examine these questions. The significance of globalization will also be considered but the emphasis of the course will be on American politics and policy. The course is not open to first-year students.
Spr POLS1740 S01 24383 TTh 1:00-2:20(10) (R. Chett)

POLS 1780. Use of Symbols in American Politics.
What do a flag, Martin Luther King, Jr. and socialized medicine have in common? They are all political symbols that have produced a strong public response. The political process is complicated beyond the understanding of most. But it becomes manageable when converted into sets of conflicting symbols. How does the public learn about political symbols? What is their role in the policy making process? Three types of symbols will be considered: community, regime and situational symbols. Course coverage limited to American domestic politics.
Spr POLS1780 S01 24374 TTh 8:30-9:50(02) (R. Cobb)

POLS 1820J. Dynamics of Agenda Building.
How do new issues make the political agenda? Why aren't elections crucial? Who are the "problem pushers" and "solution savers"? How are they linked? What factors determine the life of an issue? The key processes include problem identification, conflict expansion through issue redefinition, the role of institutional actors and issue activists. Focus limited to domestic American politics. Prerequisite: POLS 0010. Enrollment limited to 20 seniors. WRIT
Spr POLS1820J S01 24396 F 3:00-5:30(15) (R. Cobb)

POLS 1821J. Rhode Island Government and Politics.
Students participate in an approved internship in Rhode Island State Politics. Students will be expected to work 8-10 hours a week in an office of state government and, at the end of the semester, reflect on what they've learned. Enrollment limited to 20 senior Political Science concentrators. Instructor permission required. WRIT
Spr POLS1821J S01 24400 F 3:00-5:30(15) (K. Sidersky)

POLS 1821P. Political Psychology of International Relations.
This course covers basic methods and theories in the use of political psychology to study topics in international relations. The second part of the course applies these models to particular topics, including leadership, group dynamics, and the role of emotion in decision making. Enrollment limited to 20 juniors and seniors. WRIT
Spr POLS1821P S01 24398 W 3:00-5:30(14) (R. McDermott)

POLS 1822A. Nuclear Weapons and International Politics.
This seminar explores the causes and consequences of nuclear weapon 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

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

nuclear terrorism. Enrollment limited to 20 junior and senior Political Science or International Relations concentrators. WRIT Fall POLS1822A S01 16195 Th 4:00-6:30(02) (N. Miller)

POL 1822C. Congress.
Takes a comprehensive view of the U.S. Congress, its structure, procedures, elections, parties, constituencies and its interactions with the president and the courts. The Constitution establishes the Congress as the first branch and guardian of the nation’s purse strings. This course will examine the strengths and vulnerabilities of the modern Congress with its highly polarized political parties. Requires extensive reading, a detailed paper and active class participation. Students are expected to pay careful attention to current events in the U.S. Congress. Enrollment limited to 20 juniors and seniors in Political Science. Fall POLS1822CS S01 16375 T 4:00-6:30(18) (R. Arenberg)

POL 1822F. Social Movements and Struggles for Justice.
Social movements struggle for many things: policy change, changes in social relations, fundamental changes in the structures of government. We will focus on how social movements struggle to achieve justice, and specifically consider how social movements interact with efforts to strengthen the accountability of states and the rule of law. We will examine the centrality of debates over who should look to social movements and the law interact, and reflect on whether and under what circumstances we think law is a useful tool for social movements, and when it may hinder the achievement of justice. WRIT Fall POLS1822SF S01 16466 Th 4:00-6:30(18) (J. Gallagher)

POL 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. WRIT Spr POLS1822 I01 25750 Th 4:00-6:30(17) (J. Colgan)

POL 1822L. Comparative Constitutional Law.
An introduction to constitutional law of other countries and a comparison of their constitutional law to U.S. constitutional law. We will read court cases and other materials from most of the G-20 countries including: Britain, France, Germany, Italy, Japan, India, Canada, Australia, Brazil, South Africa, Indonesia, the European Court of Human Rights, and the United States. Topics include: constitutionalism, judicial review, separation of powers, federalism, free speech law, freedom of religion, criminal procedure, rights to property or welfare, rights of privacy and human dignity, judicial policing of the political process, states of emergency, and constitutional amendment processes. WRIT Spr POLS1822 LS S01 25910 W 3:00-5:30(14) (S. Calabresi)

POL 1822N. Freedom.
This course examines the meaning and conditions of human agency and freedom with a special focus on the experiences of those who are marginalized. What do these experiences tell us about the social practices, political institutions, and self-understandings that are necessary to sustain individual freedom? How do ostensibly free societies such as the U.S. instantiate freedom successfully and where do they fail? How can we enhance the experience of individual freedom today, especially for members of marginalized or oppressed groups? Enrollment limited to 20 juniors and seniors. WRIT Fall POLS1822NS S01 16196 M 3:00-5:30(15) (S. Krause)

POL 1822P. Defenses of Capitalism.
The moral justification for laissez-faire capitalism accepted in late eighteenth century came under attack in the nineteenth. Will examine four schools of thought that arose to defend capitalism: schools of free-market economists, Protestants and Catholics, Ayn Rand’s followers, and libertarians. We will find the differences between these schools are as charged and fundamental as any between capitalism and its critics. Primary sources (including Ayn Rand’s Atlas Shrugged) will provide the bulk of our reading. The course will conclude with an application of the rival theories to a few current public policy issues. Enrollment limited to 20 juniors and seniors. WRIT Fall POLS1822P S01 16521 T 4:00-6:30(18) (J. McCaskey)

POL 1822R. The Politics of Food Security.
There is enough food on the planet to feed everyone, and yet currently approximately 875 million people go hungry. Why is this the case? This course explores the politics of international food security, dividing the semester into four sections to examine food through the lens of development, human rights, governance, and security concerns. WRIT Spr POLS1822R S01 25777 T 4:00-6:30(16) (M. Jukovich)

POL 1822T. Politics of Health in the Global South.
Public health poses some of the most pressing challenges of our times. Explores the political factors that shape health and access to health care in the Global South. How does the nature of the state and welfare policies and institutions shape health and access to health care? What is the role of non-state actors, whether NGOs, religious charities, "terrorist" organizations, or other groups, in assuring the basic health needs of populations in developing countries? How do ethnic or religious social divisions affect health and health systems? Why do some health crises carry with them the potential for the enhancement of powerful global actors? Instructor permission required. WRIT Fall POLS1822T S01 15076 Th 4:00-6:30(02) (M. Cammett)

POL 1822Y. Nuclear Nonproliferation.
This seminar examines the connections between technological change and international politics. Technologies have always been central to how states conduct war, cooperate with one another, and rule their subjects. We will consider this connection both theoretically and through a number of historical and contemporary case studies of technological changes and their relationship to international politics, including the technologies of warfare, communication, and transport. It is strongly recommended that students have taken the introductory international relations course (POLS 0400) before enrolling in this seminar. Enrollment limited to 20 juniors and seniors. WRIT Spr POLS1822Y X01 24390 M 3:00-5:30(13) (J. Branch)

POL 1822Y. Nuclear Nonproliferation.
This seminar focuses on the challenges to the security of states and peoples posed by the spread of weapons of mass destruction and on efforts to control these weapons. The class will review the history and technology of weapons of mass destruction and will examine different explanations for arms control and nonproliferation outcomes. The course will analyze key contemporary issues including the prospects for the nuclear nonproliferation regime, global nuclear inequality, nuclear terrorism, nuclear energy, democratic control of nuclear weapons, and disarmament. Much of the course will focus on nuclear weapons but we will also consider chemical and biological weapons. WRIT Spr POLS1822Y Y01 25749 Th 4:00-6:30(17) (N. Tannenwald)

POL 1823E. Economic Liberty and Global Justice.
Traditionally, 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 global ideal? 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? WRIT Spr POLS1823E S01 24412 M 3:00-5:30(13) (J. Tomasi)

POL 1823G. Women and War.
This course provides an examination of the links between the security of women and the security of nations. It explores the productive and reproductive roles of women in society from an evolutionary feminist perspective which identifies the female body as a site of important societal coordination. It investigates the reciprocal relationship between individual and societal choices and structures in areas as diverse as family law, development, education and the sex trade. Students will be required to watch several films as part of the course requirements. Enrollment limited to 20 juniors and seniors. WRIT
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. WRIT  
Spr POLS1823HS01 24397 M 3:00-5:30(13) (K. Tate)

POLS 1823O. The Political Economy of Renewable Energy.  
Given the challenges presented by climate change, environmental degradation, and resource scarcity, virtually everybody agrees that “business as usual” in energy production and consumption is no longer tenable. Global-scale innovation has become imperative, particularly in the area of renewable energy. Costs must come down, new solutions must be developed, and new opportunities for deployment must be opened up. But there is more than just technology involved. As this course will demonstrate, energy systems involve the intersection of technologies, markets, domestic political institutions, interest groups, commercial strategies, and international competition. Enrollment limited to 20 juniors and seniors concentrating in Political Science and International Relations, others by instructor permission. WRIT  
Spr POLS1823OS01 25686 T 4:00-6:30(16) (J. Nahm)

POLS 1823R. Greek Tragedy in Politics, Philosophy, Theater and Film (MCM 1504C).  
Interested students must register for MCM 1504C. Fall POLS1823RS01 15761 Arranged “To Be Arranged”

POLS 1823S. Crafting Citizens: Democratic Theory and Civic Education.  
How should liberal democracies educate members for citizenship? What is the appropriate role of the state in defining an appropriate civic education? Students will develop well-researched normative arguments on civic education policy. Will examine the tension in contemporary democratic theory between value pluralism calls for restraint on the part of the state and a liberal-democratic insistence on the need to promote and sustain allegiance to core values. Will draw on current empirical insights and controversies, will consider ways in which pressing needs for social action to counteract inequitable social dynamics may complicate a normative liberal democratic vision for civic education. WRIT  
Fall POLS1823SS01 16807 T 4:00-6:30(18) (M. Lydon)

What becomes of individual freedom, political equality, and the accountability of government to its citizens when a crisis breaks? What pressures are these core political values, and the institutions built to uphold them, placed under when our leaders have to tackle extraordinary circumstances where the security, integrity and perhaps survival of our societies are at stake? Can our representatives act outside the rules when protecting liberal democracy, without fatally undermining it? How can (and should) we think about and shape our political institutions and public debate to ensure our best chance of staying both free and safe? WRIT  
Spr POLS1823TS01 26140 T 4:00-6:30(16) (M. Lydon)

POLS 1823U. Individual Liberty and Mass Incarceration.  
Many of the most renowned theorists of classical criminologists were in fact self identified political economists and political philosophers amidst the classical liberal and enlightenment tradition. Patterns of crime and punishment have significantly changed since the enlightenment period. This course asks simply: what would the enlightenment classical liberals have to say about today’s unique trends? Whereas Adam Smith was fascinated by and arguably successful in comprehending why some countries are rich and others poor; we borrow his analytical tool kit to investigate why some societies incarcerate more than others. WRIT  
Spr POLS1823US01 26139 T 4:00-6:30(16) (D. D’Amico)

POLS 1823V. The Politics Of Ethnic Content and Conflict.  
The course looks at the politics of identity-based contention and conflicts. Why do some multi-ethnic states remain politically stable for decades, then collapse into conflict, while others end deep and violent divisions with peaceful resolutions? Why do authoritarian regional hegemons encourage or repress ethnic consciousness? Why are democratic federations under strain, and when does ethnic polarization result in genocide? The course addresses these questions through analytical case studies of recent and contemporary contention in post-Yugoslav states, Ireland, South Africa, Rwanda, China, Russia, and Iraq. We conclude with intensive case studies of the conflict in Ukraine and recent Scottish independence referendum. WRIT  
Spr POLS1823VS01 26141 W 3:00-5:30(14) (L. Cook)

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. WRIT  
Fall POLS1910 S01 15079 Th 4:00-6:30(02) (L. Cook)

POLS 1920. Senior Honors Thesis Preparation.  
This course is a continuation of POLS 1910. Political Science Honors students who are completing their theses should enroll. Prerequisite: POLS 1910. Instructor permission required. WRIT  
Spr POLS1920 S01 24398 Th 4:00-6:30(17) (L. Cook)

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

POLS 1971. Individual Reading and Research.  
Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.  

Introduction to research methods common in political science research. Topics include theory development, problems of explanation and causation, problem identification, research design, and other fundamentals of empirical research. FIRST YEAR POLITICAL SCIENCE GRADUATE STUDENTS ONLY. Enrollment limited to 14.  
Fall POLS2000 S01 15083 Th 1:30-3:50(10) (R. Weitz-Shapiro)

This course provides an overview for graduate students to the methods that political scientists use to generate and answer questions about the world around us. The course has two goals: to make you a better consumer of knowledge, and to help you make the transition from a consumer to a producer of knowledge. By the end of the class, you will have developed skills necessary for carrying out research and applied them to a project that should become the basis of publishable work in the future. SECOND YEAR POLITICAL SCIENCE GRADUATE STUDENTS ONLY. LIMITED TO 14.  
Fall POLS2001 S02 16672 M 9:30-11:50(16) (R. Weitz-Shapiro)

POLS 2050. Preparing the Prospectus I.  
This course covers selected topics in research design and methodology and is designed to help students enrolled in the Political Science PhD program to write and defend a prospectus in their third year of study. Fall POLS2050 S01 15084 W 2:00-4:20(07) (J. Morone)

POLS 2051. Preparing the Prospectus II.  
This course covers selected topics in research design and methodology and is designed to help students enrolled in the Political Science PhD program to write and defend a prospectus in their third year of study. Prerequisite: POLS 2050.  
Spr POLS2051 S01 24415 W 2:00-4:20(07) (J. Morone)

POLS 2060. International Relations and History.  
This graduate seminar considers history both as a topic and as a method of international relations scholarship, and in other subfields of political science as well. We will read and discuss works that fall at the intersection of history and international relations, on topics including the sources of interstate conflict, the origins of the nation-state, and colonialism and postcolonialism. Open to Political Science Graduate students only.  
Fall POLS2060 S01 15085 W 11:30-1:50(04) (J. Branch)
POLS 2075. Social Groups in U.S. Politics. This class provides students an introduction to the major theoretical approaches and applied research in the study of the role of social groups in U.S. politics. This course surveys a number of social groups, including ethnics, non-ethnic women, and other social groups, including the poor. This course will identify the theoretical perspectives that structure the research on social groups in U.S. politics. What are the strengths and weaknesses of the methodological approaches used? Also, how could research in this area be improved? What are the major implications of the findings for public policy, policymakers, and democratic theory? Fall POLS2075 S01 15947 M 12:00-2:20(12) (K. Tate)

POLS 2090I. American and Comparative Political Behavior. This course is designed for graduate students to explore the core theoretical concepts and empirical research in the fields of political behavior and political participation in the American and Comparative context. Spr POLS2090I S01 24416 M 1:00-3:20(08) (W. Schiller)

POLS 2110. Proseminar in Comparative Politics. Provides a survey of major approaches, issues, and debates in the field of comparative politics. Topics: state formation, revolutions and civil wars, ethnic conflicts and nationalism, state-market relations, systems of representation, hegemony and domination, etc. Works of theoretical importance on each topic, focusing on authors’ arguments and controversies within the literature. Open to graduate students only. Fall POLS2110 S01 15086 W 9:00-11:20(16) (R. Locke)

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 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. Fall POLS2111 S01 16440 W 5:00-6:30(17) (R. Locke)

POLS 2112. Comparative Politics Grad Research Workshop. This course is a continuation of POLS 2111. Spr POLS2112 S01 26733 Aranged (R. Locke)

POLS 2120. Proseminar in Political Theory. An overview of central debates in political theory today. Readings include contemporary writings on justice, liberalism, democratic theory, critical theory, feminism, power, multiculturalism, and citizenship and political economy. Enrollment limited to 14 graduate students in Political Science; advanced undergraduates may enroll with permission of the instructor. Spr POLS2120 S01 24417 Th 1:30-3:50(10) (C. Bretschneider)

POLS 2145. Transnational Governance in the Global Economy. Will examine an array of transnational governance schemes which seek to address social and environmental problems in a globalized world. Whether it is global warming, deforestation in the Amazon, inhumane working conditions in Asian factories of global supply chains, limited access to medicine, or child poverty – the elaboration of cross-border institutions that potentially can help to resolve these problems is likely to require the involvement of variety of actors with different types of information and knowledge from geographically and socially distant parts of the world. Fall POLS2145 S01 16770 M 2:30-4:50(07) (S. Quack)

POLS 2160. International Political Economy. Graduate seminar that surveys the subfield of international political economy. Outlines the historical development of the subfield as it moved from questions of US decline to issues of international cooperation and compliance and back to issues of US decline. Places the US research agenda in comparison with schools of IPE in the rest of the world. Topics covered include globalization and distribution, development, IGOs and NGOs in the IPE, Public and Private Authority, the rise and fall of nations. Open to graduate students only. Fall POLS2160 S01 15087 Th 10:00-12:20(13) (M. Blyth)

POLS 2245. The International Political Economy of Global Finance. Although global finance is back in vogue since the 2008 crisis, it remains a frontier of research in mainstream political science. It is an excellent area to conduct research since it remains an ‘open range’ of inquiry. The course is divided into three parts. First covers classic accounts of the politics of global finance from within political science and related areas. Second focuses in on the best accounts of the 2008 crisis. Third discusses areas such as Risk Management, Hedge Funds, Money Laundering, Quantitative Finance, and Sovereign Debt that occupy the new frontier of political science research. Spr POLS2245 S01 25907 Th 10:00-12:20(08) (M. Blyth)

POLS 2260. Comparative Politics and China. Will explore the main theoretical, empirical, and methodological approaches to the study of contemporary Chinese politics. Will relate these approaches to broader analytical issues in the field of comparative politics. What phenomena are generally studied in Chinese politics, and how are they studied? How are arguments made, and how could they be made more effectively? What is not studied that should be? How should regionally-focused empirical research be structured? What are the most effective ways to integrate area studies, broader comparative approaches, and theory? Course will prepare graduate students for dissertation research on China specifically and comparative politics more generally. Spr POLS2260 S01 24419 W 10:00-12:20(03) (E. Steinfield)

POLS 2270. Political Economy of Industrial Development. This seminar explores the mechanisms by which assets, institutions, and governance interact to shape patterns of industrial development across the world. The seminar has four main objectives: 1) to review competing schools of thought on why some countries have attained the cutting edge of industrial development and upgrading while others have not, 2) to examine the relationship between evolving structures of industrial production and evolving conditions of politics in particular national settings, 3) to consider how conditions of globalization affect the developmental challenge for industrializing nations, and 4) to consider how new concerns surrounding environmental sustainability affect the process of industrialization. Fall POLS2270 S01 16031 T 9:30-11:50(08) (E. Steinfield)

POLS 2295. Women and Nations. This class will provide an introduction to feminist theories of international relations. Major topics involving the role of women in society will be covered, including the sexual division of labor, female societal invisibility, education and the role of microloans in development. Major attention will be placed on the role of women in security, including issues surrounding women in combat, rape in war, honor killings, and sexual subjugation and slavery. Particular attention will be paid to reproductive differences and capacities, particularly as they relate to maternal economics and the role of breastfeeding. Restricted to graduate students. Spr POLS2295 S01 25311 T 1:30-3:50(10) (R. McDermott)

POLS 2345. Politics and Nature. In this course we explore the field’s most important recent contributions to the study of political theory and the environment. We investigate the basis and scope of our obligations to the natural world; our obligations to one another with respect to the exploitation, degradation, and preservation of the natural environment; and our obligations to ourselves as individuals with respect to the natural environment. We then consider what political principles, institutions, and practices might best enable us to meet these obligations. Readings include Jane Bennett, Melissa Lane, John Dryzek, Cass Sunstein, Martha Nussbaum, Wendell Berry, Peter Singer, and others. Spr POLS2345 S01 25340 T 9:30-11:50(08) (S. Krause)

POLS 2355. The Politics of Precariness and Resilience. Precariness and resilience are themes current in contemporary political theory and practice but they are rooted in Greek tragedy, developed in later philosophical understandings of “the tragic,” and explored in a range of modern philosophical and literary texts. We will read works explicitly concerned with these themes (Nietzsche, DW Winnicott, Judith Butler, William Connolly, and Annelise Francois) as well as selected examples from Greek tragedy and modern literature, including the Antigone, the Bacchae, Doris Lessing’s The Golden Notebook, and Ralph Ellison’s Invisible Man.
PORTUGUESE AND BRAZILIAN STUDIES

POBS 0100. Elementary Portuguese.
Designed for students with little or no preparation in the language. Stresses the fundamental language skills of understanding, speaking, reading and writing. Aspects of Portuguese and Brazilian culture are also presented. Uses a situational/natural approach that emphasizes communication in Portuguese from the very first class. A year course; only in exceptional circumstances is credit given for one semester alone. Offered every semester.
Fall POBS0100 S01 15396 MWF 10:00-10:50(03) (P. Sobral)
Fall POBS0100 S01 15396 TTh 10:30-11:20(10) (P. Sobral)
Fall POBS0100 S01 15396 MW 12:00-12:50(04) (P. Sobral)
Fall POBS0110 S01 15396 MW 1:00-1:50(03) (P. Sobral)
Spr POBS0110 S01 24538 TTh 9:00-10:20(04) (P. Sobral)
Spr POBS0110 S01 24538 MWF 11:00-11:50(04) (P. Sobral)
Spr POBS0110 S01 24538 MWF 1:00-1:50(04) (P. Sobral)

POBS 0200. Elementary Portuguese.
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. Offered every semester.
Prerequisite: POBS 0100.
Spr POBS0200 S01 24539 MW 2:00-2:50(10) (P. Sobral)
Spr POBS0200 S01 24539 TTh 1:00-2:20(10) (P. Sobral)

POBS 0400. Writing and Speaking Portuguese.
Designed to improve the students' ability in contemporary spoken and written Portuguese. Using such cultural items as short stories, plays, films, videos, newspaper and magazine articles, and popular music, students discuss a variety of topics with the aim of developing good communication skills. Attention also given to developing writing ability. A systematic review of Portuguese grammar is included. Prerequisite: POBS 0200, or POBS 0110 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 15397 MWF 11:00-11:50(04) (P. Sobral)
Fall POBS0400 S01 15397 MW 12:00-12:50(04) (P. Sobral)
Spr POBS0400 S01 24540 MW 10:00-10:50(09) (P. Sobral)
Spr POBS0400 S01 24540 TTh 11:00-11:50(09) (P. Sobral)

POBS 0610. Mapping Portuguese-Speaking Cultures: Brazil.
Selected literary and cultural texts that serve as vehicles for a deeper understanding of Brazilian 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 15398 TTh 2:30-3:50(11) (P. Sobral)

POBS 0620. Mapping Portuguese-Speaking Cultures: Portugal and Africa.
Selected literary and cultural texts that serve as vehicles for a deeper understanding of Portuguese and Luso-African societies. Literary materials will be taken from several genres and periods with special attention to contemporary writings. Other media such as film and music will also be included. Considerable emphasis on strengthening speaking and writing skills. Prerequisite: POBS 0400, placement or instructor’s permission. Conducted in Portuguese.
Fall POBS0620 S01 15398 MWF 10:00-10:50(10) (P. Sobral)

POBS 0100. Elementary Portuguese.
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. Offered every semester.
Prerequisite: POBS 0100.
Spr POBS0200 S01 24539 MW 2:00-2:50(10) (P. Sobral)
Spr POBS0200 S01 24539 TTh 1:00-2:20(10) (P. Sobral)
skills. Prerequisite: POBS 0400, placement or instructor’s permission.
Conducted in Portuguese.
Spr POBS0620 S01 24542 TTh 2:30-3:50(11) (L. Simas-Almeida)

POBS 0720. Racial and Gender Politics in Contemporary Brazil (AFRI 0710A).
Interested students must register for AFRI 0710A.
Spr POBS0720 S01 25710 Arranged 'To Be Arranged'

POBS 0810. Belonging and Displacement: 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 20 first year students. FYS WRIT
Fall POBS0810 S01 15399 TTh 9:00-10:20(08) (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: 20. Reserved for Freshman Year students. FYS LILE WRIT
Fall POBS0910 S01 15918 M 3:00-5:30(15) (O. Almeida)

POBS 0915. On Cultural and Personal Identity.
A close analysis of concepts such as cultural and personal identities by means of a variety of interdisciplinary readings, including a combination of essays and a set of works of literature by diverse authors from various countries and cultures. SOPH
Fall POBS0915 S01 15915 W 3:00-5:30(17) (O. Almeida)

POBS 0970. Tropical Delights: Imagining Brazil in History and Culture (HIST 0970B).
Interested students must register for HIST 0970B.
Fall POBS0970 S01 16289 Arranged 'To Be Arranged'

POBS 0971M. The Rise of Abolitionism in the Atlantic World:
Americas, Europe, and Africa (HIST 0971M).
Interested students must register for HIST 0971M.
Fall POBS0971M S01 16290 Arranged 'To Be Arranged'

POBS 0990. Mapping Cross-Cultural Identities.
How do we construct our own identity as life becomes a multitude of narrative threads intersecting and overlapping like roadways on a map? How do we reconfigure identities vis-à-vis those who surround us? We will investigate the ever-changing map of cultural identities and its repercussions on human existence via contemporary literature and a series projects that incorporate the arts (visual, digital, literary) and oral history. Some of the writers include Julia Alvarez, Kiran Desai, Junot Diaz, Milton Hatoum, Chang-Rae Lee, Clarice Lispector, Dinaw Mengestu, Nélida Piñon, Salman Rushdie, Tâise Selasi and others. No experience in the arts necessary. SOPH
Spr POBS0990 S01 25782 W 3:00-5:30(14) (P. Sobral)

POBS 1030. Portuguese Stylistics: Advanced Language Study and Creative Writing.
An intensive writing course covering basic genres: letter, short essay, diary, short story, and poetry. Students write five pages per week on five different preassigned topics that range over a wide variety of subjects. Exposes students to idiomatic and stylistic writing in a multitude of areas. In class, students read and comment on each other’s writings. Enrollment limited to 20. Conducted in Portuguese. WRIT
Fall POBS1030 S01 15400 T 12:00-2:20(10) (L. Simas-Almeida)

POBS 1080. Performing Brazil: Language, Theater, Culture.
Designed to deepen the students’ understanding of Brazilian culture and society through the performing arts. Students will read a series of plays and respond to them in a variety of ways: in writing, verbally, and through performance. The course will include poetry and music as these can also be performed. Throughout the semester students will also be working on creating their own performance pieces. Conducted in Portuguese.
Spr POBS1080 S01 24541 F 9:30-11:50(02) (P. Sobral)

POBS 1210. Afro-Brazilians and the Brazilian Polity (AFRI 1210).
Interested students must register for AFRI 1210.
Fall POBS1210 S01 16388 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.
Fall POBS1500A S01 15401 Th 4:00-6:30(02) (L. Simas-Almeida)

POBS 1500C. The "I" of the Beholder: Self-Examination and Self-Display in Modern Brazilian Fiction.
This course will address the first-person impulse in modern Brazilian fiction with the aim of analyzing the process of self-consciousness vis-à-vis national identity, individualism, memorialism, authoritarianism, and subjectivity. The course will also consider the first person in the context of realism, modernism, regionalism, and postmodernism. Discussion will center upon prose by Mário de Andrade, Rachel de Queiroz, Antônio Olavo Pereira, Clarice Lispector, Lygia Fagundes Telles, Nélida Piñon, Ivan Ângelo, Rubem Fonseca, and others.
Spr POBS1500C S01 24553 W 3:00-5:30(14) (N. Vieira)

POBS 1500Y. The Rise of Brazilian Literature.
Focuses on the major poetic styles from the seventeenth through the nineteenth centuries, Baroque, "Arcadismo" (Neoclassicism), Romanticism, Parnassianism and Symbolism, as well as on the literary histories that established the parameters for a Brazilian national literature. Considers parallel developments in the visual arts. Includes opportunities for literary translation. Conducted in Portuguese.
Spr POBS1500YS01 24774 Th 4:00-6:30(17) (L. Valente)

POBS 1600A. The Afro-Luso-Brazilian Triangle (AFRI 1020C).
Interested students must register for AFRI 1020C.
Spr POBS1600A S01 25711 Arranged 'To Be Arranged'

POBS 1600D. Portuguese Discoveries and Early Modern Globalization.
Introduces the study of global early modernity through the lens of the Portuguese empire c. 1400-1700. Maps out the origins, motivations, and nature of Portugal’s imperial expansion. Establishes the patterns of the Portuguese presence in the Atlantic and Indian Ocean. Emphasizes the dependence of the Portuguese empire on other societies, its institutional fragility, its social complexity, and the difficult relations between ideology and economy. Explores the idea of an early "cultural globalization" in religion, art and politics from Iberia to Japan via Brazil, Africa and India. Avoids the traditional idea of an exceptionality of the Portuguese overseas experience. Conducted in English. Enrollment limited to 40.
Fall POBS1600D S01 15500 TTh 10:30-11:50(13) (R. Ferreira)

Deals with the history and historiography of the European expansion, imperial experiences in Africa, Asia and America c. 1400-1800. Focus on the structure and dynamics of the Iberian case(s) in a comparative framework placing it in the broader context of the European expansion in the fourteenth century. Deals extensively with the rise of slavery in the Atlantic world, early globalization, maritime expansion and trading networks, and forms of resistance and negotiation with European colonialism. Particular emphasis will be given to the relations between these imperial bodies and other (non-European) Empires, by focusing on cross-cultural contacts and conflicts, and hybrid societies. FYS
Spr POBS1600UL S01 25837 W 9:30-12:00(02) (R. Ferreira)

POBS 1671. Brazil: From Abolition to Emerging World Power (HIST 1671).
Interested students must register for HIST 1671.
Fall POBS1671 S01 16291 Arranged 'To Be Arranged'

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
POBS 1720. Literacy, Culture, and Schooling for the Language Minority Student.
Focuses on increasing awareness of the intersection of language and literacy, the sociocultural influences on literacy development, and the application of diverse strategies that support the acquisition of second-language literacy. Combines a theoretical exploration of literacy processes and methodological implications with a clinical requirement of four hours weekly in a second-language field-teaching practicum. Conducted in English.
Spr POBS1720 S01 24762 M 4:00-6:20(13) (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.
Spr POBS1750 S01 24763 Th 4:00-6:30(17) (M. Pacheco)

POBS 1800E. The Brazilian Puzzle: Confronting the Post-Colonial Legacy.
Brazilian intellectuals have often attempted to understand and explain the challenges in modern Brazilian society (political, economic, racial, educational) by pondering Brazil’s Iberian roots and assessing the legacy of Portuguese colonialism. Manuel Bonfim, Sérgio Buarque de Holanda, Paulo Prado, Gilberto Freyre, Vianna Moog, Caio Prado, Celso Furtado, Paulo Freire, Oswald the Andrade, Roberto DaMatta. Attention to film, music, and the visual arts. Conducted in Portuguese.
Spr POBS1800ES01 24544 M 3:00-5:30(13) (L. Valente)

POBS 1953. Brazil: From Conquest to the End of Slavery (HIST 1953).
Interested students must register for HIST 1953.
Spr POBS1953 S01 25625 Arranged ‘To Be Arranged’

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.

Interested students must register for HIST 1970E.
Spr POBS1970ES01 25626 Arranged ‘To Be Arranged’

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 200D. Theories in First and Second Language Acquisition.
Theory and current research relating to first and second language acquisition and learning are examined from a pedagogical perspective. Focuses on both learning and teaching a second language. Conducted in English.
Fall POBS200D S01 15507 T 4:00-6:30(18) (S. Smith)

POBS 200E. Research Seminar in ESL Education.
Focuses on preparing students to conduct qualitative research in diverse educational settings. As a final project, students develop a comprehensive framework for a self-designed study. Conducted in English.
Spr POBS200ES01 24764 T 4:00-5:30(16) (M. Pacheco)

POBS 2120A. ESL Methodology Assessment and Evaluation.
An overview of the current principles, practices and approaches that inform assessment and evaluation for English language learners. Participants engage in class activities that duplicate selected assessment approaches and identify strategies for integrating assessment with planning and instruction appropriate to the language proficiency of students. Participants explore assessment research and theoretical background for an understanding of the complexity of evaluating student achievement. Conducted in English.
Fall POBS2120AS01 15508 M 4:00-6:30 (M. Pacheco)

POBS 2500F. Tales of the “Sertão”.
The reality and mythology of the “sertão” have long been a source of inspiration for Brazilian writers, visual artists, and filmmakers. This seminar considers the transformations of the “sertão” motif since the second half of the nineteenth century. Fiction by José de Alencar, Euclides da Cunha, Graciliano Ramos and João Guimarães Rosa. Films by Glauber Rocha and Sandra Kogut. Conducted in Portuguese.
Fall POBS2500F S01 15404 M 3:00-5:30(15) (L. Valente)

POBS 2500L. The Portuguese Essay.
Focuses on some key themes of Portuguese social, political and cultural life that have been dealt with in the essay form, in the 19th and 20th century, such as Portugal’s decline, modernization, regeneration and national identity. Special attention to literature on the essay as a genre. Readings include Antero de Quental, Oliveira Martins, Silvio Lima, Joaquim de Carvalho, Antonio José Sarabia, Eduardo Lourenço and others. Conducted in Portuguese.
Spr POBS2500L S01 25217 T 6:00-8:30PM(12) (O. Almeida)

POBS 2600A. Medieval and Renaissance Portuguese Literature.
An analysis of Portuguese literature from the Middle Ages to the 16th century. Special attention given to the poetry of the Cangianos, Fernão Lopes, Gil Vicente, and Luís de Camões. Conducted in Portuguese.
Spr POBS2600A S01 25983 T 4:00-5:30(16) (L. Simas-Almeida)

POBS 2600O. The Sage of Suspicion: Machado de Assis and the Agencies of Narrative.
Novels and short stories of Machado de Assis within the context of the socio-political reality of nineteenth-century Brazil. Attention to the ideologies of Brazil’s ruling class, its self-image and views on national identity, class and race; the issue of fiction vs. reality; and/or such topics as irony, symbolism, and narratology. Conducted in Portuguese.
Fall POBS2600OS01 15402 W 3:00-5:30(17) (N. Vieira)

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 14447 Arranged ‘To Be Arranged’
Spr POBS2970 S01 23814 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 tuition requirement and are paying the registration fee to continue active enrollment while preparing for a thesis.
Fall POBS2990 S01 14448 Arranged ‘To Be Arranged’
Spr POBS2990 S01 23815 Arranged ‘To Be Arranged’

Public Health
PHP 0030. Health of Hispaniola.
Two developing countries, Dominican Republic and Haiti, have widely differing health outcomes despite centuries of shared experience on the Caribbean Island of Hispaniola. This course will examine the history, politics, economics, culture, international relations, demography, and geography, as well as epidemiology and health services, to demonstrate that multiple factors, both recent and long-standing, determine the present health of these populations. Enrollment limited to 20 first year students. Instructor permission required. FYS WRIT
Spr PHP0030 S01 25922 TTh 6:40-8:00PM(12) (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 20 first year students. FYS WRIT Fall PHP0050 S01 16313 TTh 1:00-2:20(10) (N. Trivedi)

PHP 0100. First year seminar: Statistics is everywhere. Statistics is the universal language behind data-enabled decision making. Examples include Google’s page ranking, Amazon’s customer recommendations, weather prediction, medical care and political campaign strategy. This seminar will expose students to a variety of problems encountered in the media, in science and in life for which solutions require analysis of and drawing inferences from data. We will introduce basic concepts such as randomness, probability, variation, statistical significance, accuracy, bias and precision. The course will discuss statistical problems from reading assignments and material identified by the students. We will use simulation to illustrate basic concepts, though previous programming experience is not required. FYS Fall PHP0100 S01 16742 TTh 2:30-3:50(11) (Z. Wu)

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 inevitably affect the others. Addresses the balance between employer funded health insurance, publicly funded health insurance and the consequences of not being insured. Seven discussion sections arranged during the semester. Open to undergraduates only. LILE Spr PHP0310 S01 25210 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. LILE Fall PHP0320 S01 14808 MWF 11:00-11:50(04) (M. Clark)

PHP 0600. Primetime Bioethics - Ethics in the Media. This course is geared toward students interested in Biomedical Ethics. Students will watch an assigned medical show, read a related article, and participate in a class discussion. A final project will involve groups of students creating their own "episode" with an ethical dilemma and solution in order to demonstrate what they have learned in a creative and novel way. This is a discussion-based course, with one or two students leading the discussion each week, after meeting briefly with (or emailing) the instructor in order to identify the important topics and ensure that they feel confident in leading the discussion. Fall PHP0600 S01 16533 T 4:00-6:30(18) (D. Fearon)

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 16467 TTh 2:30-3:50(11) (S. Buka)

PHP 1070. The Burden of Disease in Developing Countries. Defines and critically examines environmental, epidemiologic, demographic, biomedical, and anthropological perspectives on health and disease in developing countries. Emphasis on changes in the underlying causes of morbidity and mortality during economic development. Focuses on the biosocial ecology of diseases. Required major term paper worth 50% of final grade is scholarly centerpiece of course. Weekly discussion sections and small group research projects supplement the two exams and term paper. Guest lecturers cover different diseases and public health perspectives. Enrollment limited to 65. DPLL LILE WRIT Fall PHP1070 S01 15907 MW 8:30-9:50(16) (S. McGarvey)

PHP 1100. Comparative Health Care Systems. Focuses on principles of national health system organization and cross-national comparative analysis. Emphasizes application of comparative models to the analysis of health and health-related systems among nations at varying levels of economic development and health care reform. Addresses research questions related to population health and systems’ performance. Questionnaire completion required for Freshman and Sophomore students. Enrollment limited to 30. DPLL Fall PHP1100 S01 16377 T 12:00-2:20(10) (O. Galarraga)

PHP 1400. HIV/AIDS in Africa: A Multidisciplinary Approach to Support HIV/AIDS Care and Treatment Programs. The course is intended to challenge students from different disciplines to develop strategies to address the challenges of establishing and sustaining HIV/AIDS care and treatment programs in Africa. The course will begin with a general introduction to HIV/AIDS to provide a foundation where students will obtain a basic scientific and sociological understanding of the disease. Discussion topics on: the impact of AIDS, including antiretroviral therapy in Africa, monitoring and evaluating ARV therapy scale up and developing a country wide plan for a national laboratory system to support HIV/AIDS care and treatment will be facilitated through the use of case studies. Enrollment limited to 25 juniors and seniors. Graduate students with permission of instructor. DPLL Spr PHP1400 S01 24500 T 4:00-6:30(16) (M. Ghee)

PHP 1500. Global Health Nutrition. The course focuses on nutritional status influences on population health of low and middle income countries. It covers both 1) undernutrition, including protein-calorie malnutrition and specific micronutrient deficiencies; and 2) overnutrition, including obesity. It covers morbidity and mortality associated with under- and overnutrition. Nutritional aspects of maternal and child health and the association of nutritional exposures early in life and later adult health are emphasized. Specific areas include nutritional status measurement, including body size and composition, and national, socioeconomic and political factors. Prerequisite: PHP 1070, 2120, 2150, or BIOL 0030. DPLL Spr PHP1500 S01 25281 Arranged (S. McGarvey)

PHP 1501. Essentials of Data Analysis. This course covers the basic concepts of statistics and the statistical methods most commonly used in the social sciences and public health with an emphasis on application of methods to real data. The first half of the course introduces descriptive statistics and the inferential statistical methods of confidence intervals and significance tests, applied to means and proportions. The second half introduces multivariate methods, emphasizing contingency table analysis, regression, and analysis of variance. This is designed to be a first course in Statistics, so know previous knowledge of the subject is expected. There are no prerequisites. Fall PHP1501 S01 16370 TTh 1:00-2:20(10) (R. Gutman)

PHP 1520. Emergency Medical Systems: An Anatomy of Critical Performance. Problems and issues surrounding delivery of emergency medical services in U.S. Topics: cost of illness; rationing health care; living wills; malpractice and its effects; effects of alcohol and other risk behavior. Priority to community health concentrators and PLME students pursuing MPH degree. Enrollment limited to 60. Spr PHP1520 S01 25912 W 3:00-5:30(14) (B. Becker)

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

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
students' capacity to apply a population-based viewpoint to public health practice. Prerequisite: PHP 0320. Enrollment limited to 40.

Spr PHP1530 S01 25212 M 3:00-5:30(13) (R. Marshall)

PHP 1600. Obesity in the 21st Century: Causes, Consequences and Countermeasures.
The scope of obesity knowledge is too large to cover during one single course, therefore we will focus primarily on obesity-related health outcomes, assessment of obesity, obesity epidemiology, social and behavioral correlates of obesity, obesity and stigma, policy and interventions across population groups. The readings for this course are multi-disciplinary in nature and integrate epidemiological, biological, sociological, political and philosophical perspectives. This course is specific to the United States and thusly all readings will reflect this contextual focus. Enrollment limited to 30. DPLL

Spr PHP1600 S01 24502 Th 4:00-6:30(17) (A. Keita)

PHP 1680L. Pathology of 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 in disabilities. DPLL UILE

Fall PHP1680L S01 16383 W 3:00-5:30(17) (S. Skeels)

PHP 1680K. Introduction to Conducting Clinical Research.
This course is intended to help students become familiar with the design and implementation of clinical research, including ethical and logistical processes related to collecting data and interpretation of published medical literature. In addition to weekly sessions, the course requires 4-6 hours weekly in the Emergency Department at Rhode Island Hospital enrolling patients in clinical trials. As students will be directly exposed to patient and clinical care, the course is limited to 12 students for the semester. Interested students should contact the course director to be considered for enrollment. Not open to first year students. Instructor permission required.

Spr PHP1680K S01 26902 M 3:00-5:30(13) (F. Beaudoin)

PHP 1680N. Tobacco, Smoking, and the Evil Empire.
Reviews the epidemiology of smoking and nicotine addiction and briefly examines its neurobiological and behavioral underpinnings. Covers prevention efforts and state-of-the-art treatment interventions with an emphasis on policy implications. Course background in psychology, sociology, or community health is recommended. Suggested prerequisites: PHP 0320 and CLPS 0010. Restricted to juniors, seniors, and graduate students.

Spr PHP1680N S01 25264 Th 1:00-3:20(10) (D. Williams)

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

Spr PHP1680T S01 24501 TTh 11:00-12:20(09) (W. Rakowski)

PHP 1700. Current Topics in Environmental Health.
This course is designed to introduce students to the field of environmental health, and demonstrate how environmental health is integrated into various aspects of our lives, both directly and indirectly. Topics to be covered include: toxic metals, vector-borne disease, food safety, water quality, radiation, pesticides, air quality, hazardous waste, risk assessment, and the role of the community in environmental health. Several topics will be presented by guest speakers so that students can learn from the expertise of professionals in the field. Enrollment limited to 40.

Fall PHP1700 S01 15908 F 1:00-3:20(06) (K. Kelsey)

PHP 1740. Principles of Health Behavior and Health Promotion Interventions.
Examines health behavior decision-making and elements for design of health promotion interventions. Covers theories of health behavior (focusing on primary and secondary prevention), principles of intervention design, and reading of research literature. Emphasizes psychological, social, and proximate environmental influences on individuals' health-related behaviors. Restricted to juniors, seniors, and graduate students. Prerequisite: PHP 0320 or equivalent. Enrollment limited to 25.

Fall PHP1740 S01 16019 MW 1:00-2:20(06) (W. Rakowski)

The Healthy Food Access Lab will investigate community-based approaches to increasing access to healthy food and reducing obesity and overweight and food insecurity and hunger. It will provide students with an integrative scholarship experience that combines in-class and field-based learning opportunities with the development of applied, community-based research projects addressing a range of healthy food access challenges facing Providence and Rhode Island.

Fall PHP1850 S03 16806 W 3:00-5:30(17) (K. Gans)

PHP 1854. The Epidemiology and Control of Infectious Diseases.
The objective of this course is to introduce students to key methods and concepts in the epidemiological study and control of infectious diseases. By the end of this course, students will have a solid foundation in the distribution, transmission, and pathogenesis of major infectious diseases that affect human populations. We will discuss methods to design and evaluate public health strategies to prevent or eliminate infectious diseases, including: outbreak investigation, disease surveillance, infection control, screening, and vaccination. Student-led presentations/discussion sessions will debate recent controversies, ethical issues, and larger societal implications for the prevention and control of infectious diseases in the 21st century. The course is open to all undergraduate students who have successfully completed PHP 0320 (Introduction to Public Health) and to graduate students who have completed or are concurrently enrolled in either PHP 2120 (Introduction to Methods in Epidemiology Research) or PHP 2150 (Foundations in Epidemiologic Research Methods).

Fall PHP1854 S01 16386 MW 1:00-2:20(06) (B. Marshall)

PHP 1910. Community Health Senior Seminar.
Disparities in health and health care have been documented in the U.S. and globally. Students will develop a needs assessment relevant to health disparities at the local or global level; systematically review, synthesize, and critique a body of literature; use knowledge and tools from previous public health classes to pose a research question, and then find, create, and manipulate data to perform appropriate analysis; interpret and present study results; and learn to work collaboratively towards a specific public health research goal. Prerequisite: PHP 0310, 0320, and 1320. Open to Senior Community Health concentrators only.

Spr PHP1910 S01 25748 Arranged "To Be Arranged"

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. DPLL

Spr PHP1920 S01 25222 Arranged (E. Loucks)

PHP 1960. Epidemiology of Chronic Disease.
This course is aimed at providing students with an introduction to the epidemiology of chronic disease. The topics in this course will review major chronic diseases; review descriptive data on population differences and time trends in incidence, prevalence and mortality; summarize mechanisms of pathogenesis; discuss major risk factors and address methodological issues in establishing causality; address potential opportunities for disease prevention and control. Students will be expected to present a selected topic on a current topic, providing opportunities to discuss cutting-edge research areas in the field.
Clinical and Translational Research Institute. S/NC

exercises and assignments. This is a graduate-level course aimed at students. For Summer enrollment, students must be accepted to the field of interest. Prerequisite: PHP 2120. Enrollment limited to 10 graduate students.

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.

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.

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

This advanced graduate seminar extends methodologic training in epidemiology and integrates it with subject matter knowledge to enhance inferences about epidemiologic research and its application to policy. Students will build on a foundation of methods training through Intermediate Epidemiology (PHP 2200) with selected advanced methods topics such as meta-analysis, imputation, and the tools of clinical epidemiology. Each week, a new methodologic topic will be introduced and we will develop a specific application of epidemiology to causal inference and policy. Prerequisite: PHP 2200. Open to graduate students only.

This second course in epidemiologic methods reinforces the concepts and methods taught in PHP 2150, with in-depth instruction in issues of laboratory component where students will learn to apply the concepts and methods taught in PHP 2150, with in-depth instruction in issues of 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.

This advanced graduate seminar extends methodologic training in epidemiology and integrates it with subject matter knowledge to enhance inferences about epidemiologic research and its application to policy. Students will build on a foundation of methods training through Intermediate Epidemiology (PHP 2200) with selected advanced methods topics such as meta-analysis, imputation, and the tools of clinical epidemiology. Each week, a new methodologic topic will be introduced and we will develop a specific application of epidemiology to causal inference and policy. Prerequisite: PHP 2200. Open to graduate students only.

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

The course is designed to provide students with a strong foundation in epidemiologic 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.

This second course in epidemiologic methods reinforces the concepts and methods taught in PHP 2150, with in-depth instruction in issues of 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.

This course introduces students to the epidemiological study of historical and contemporary environmental/occupational agents, focusing on study design, biases, and methodological tools used to evaluate and extend the evidence linking exposures to human disease. The course will discuss applications, strengths, and limitations of different study designs and their use in studying specific environmental agents. Didactic lectures and student-led discussions will be used to provide students with a basic understanding of and the tools to apply/extend their knowledge of specific environmental agents (cell phones and endocrine disruptors) and special topics (children’s neurodevelopment and epigenetics). Prerequisite: PHP 2120 or equivalent.

This course introduces students to the epidemicological study of historical and contemporary environmental/occupational agents, focusing on study design, biases, and methodological tools used to evaluate and extend the evidence linking exposures to human disease. The course will discuss applications, strengths, and limitations of different study designs and their use in studying specific environmental agents. Didactic lectures and student-led discussions will be used to provide students with a basic understanding of and the tools to apply/extend their knowledge of specific environmental agents (cell phones and endocrine disruptors) and special topics (children’s neurodevelopment and epigenetics). Prerequisite: PHP 2120 or equivalent.

This course is designed to provide students with a strong foundation in epidemiologic 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.

This second course in epidemiologic methods reinforces the concepts and methods taught in PHP 2150, with in-depth instruction in issues of 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.

This course is designed to provide students with a strong foundation in epidemiologic 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.

This course is designed to provide students with a strong foundation in epidemiologic 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.

This second course in epidemiologic methods reinforces the concepts and methods taught in PHP 2150, with in-depth instruction in issues of 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.

This course is designed to provide students with a strong foundation in epidemiologic 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.

This course introduces students to the epidemicological study of historical and contemporary environmental/occupational agents, focusing on study design, biases, and methodological tools used to evaluate and extend the evidence linking exposures to human disease. The course will discuss applications, strengths, and limitations of different study designs and their use in studying specific environmental agents. Didactic lectures and student-led discussions will be used to provide students with a basic understanding of and the tools to apply/extend their knowledge of specific environmental agents (cell phones and endocrine disruptors) and special topics (children’s neurodevelopment and epigenetics). Prerequisite: PHP 2120 or equivalent.

This course introduces students to the epidemicological study of historical and contemporary environmental/occupational agents, focusing on study design, biases, and methodological tools used to evaluate and extend the evidence linking exposures to human disease. The course will discuss applications, strengths, and limitations of different study designs and their use in studying specific environmental agents. Didactic lectures and student-led discussions will be used to provide students with a basic understanding of and the tools to apply/extend their knowledge of specific environmental agents (cell phones and endocrine disruptors) and special topics (children’s neurodevelopment and epigenetics). Prerequisite: PHP 2120 or equivalent.
complexity of methodological issues in global and domestic infectious disease epidemiology today. Enrollment limited to 25 graduate students. Prerequisite: PHP 2120 or 2150; and PHP 2508 or 2511; or instructor permission.

Spr PHP2220H S01 25280 Arranged (M. Lurie)

**PHP 2222. Genetics, Human Population and Diseases.**

The purpose of this course is: 1) to introduce students to genetics, genomics and various designs of genetic studies of human diseases, and 2) to discuss selected topics in challenges and advances in human genetic studies. Some prior knowledge with genetics or epidemiology is preferred. This course may be most appropriate for second-year MPH, ScM, or PhD students, as well as first-year graduate students and advanced undergraduate students with previous exposure to introductory epidemiology and biostatistics. Prerequisite: introductory-level statistical analyses and epidemiology courses, such as PHP 2507 or 2510, and 2120 or 2150. Undergraduates need permission of instructor to register.

Fall PHP2222 S01 16347 F 9:30-12:00(16) (Y. Huang)

**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 15920 TTh 1:00-2:20(10) (C. Howe)

**PHP 2300. Research Methods in Behavioral Science.**

This course provides students with fundamental principles of behavioral and social research methodology for understanding the determinants of public health problems, and for executing and testing public health interventions. We will focus on experimental methods, observational studies, and qualitative approaches. We will develop skills in understanding and interpreting data—both quantitative and qualitative. Throughout the course we will emphasize ethical, cultural, and professional issues for designing public health interventions. Prior coursework in research methodology and quantitative methods is recommended but not required. Open to graduate students and advanced undergraduates. Enrollment limited to 15.

Fall PHP2300 S01 16074 W 1:00-3:20(06) (D. Operario)

**PHP 2325. Place Matters: Exploring Community-Level Contexts on Health Behaviors, Outcomes and Disparities.**

There is growing recognition among researchers, public health practitioners and policymakers that place matters for health behaviors and health outcomes. But what is place, and why does it matter? As with many health-related outcomes, the prevalence of ill health is unequally distributed across populations with certain features playing significant roles on health. In this course, we will explore the features of community environments and the associations with health behaviors (e.g. physical activity, preventive care, alcohol, sexual behaviors) and health outcomes (e.g. obesity, cardiovascular disease and mental health). This course is specific to the US. Enrollment limited to 25.

Fall PHP2325 S01 16350 M 9:00-11:20(16) (A. Keita)

**PHP 2330. Behavioral and Social Approaches to HIV Prevention.**

This course examines concepts, approaches, and empirical findings from behavioral and social research to prevent HIV transmission. Students will become familiar with behavioral theories, social epidemiological principles, intervention design, and debates within the field of HIV prevention. A particular focus of this course is on the linkages between science and HIV prevention practice/policy. Students will conduct weekly readings, engage actively in seminar discussions, and participate in small-group presentations and research activities. Prior coursework in public health research methodology is recommended. Prerequisites: Graduate student or senior public health concentrator. Enrollment limited to 25 graduate and medical students. DPLL

Spr PHP2330 S01 24503 T 1:00-3:20(10) (D. Operario)

**PHP 2340. Behavioral and Social Science Theory for Health Promotion.**

This course will help students become familiar with behavioral and social science theories commonly used for planning disease prevention/health promotion interventions. In addition to review of specific theories, topics to be discussed include: how theories are developed and tested; challenges and potential pitfalls in using theory for intervention planning; and creation of causal diagrams based on concepts from theories. Undergraduates need permission of instructor; priority will be for Community Health concentrators. Enrollment limited to 25.

Fall PHP2340 S01 15902 T 12:00-2:20(10) (D. Williams)

**PHP 2350. Economics of Medical Therapies: Health Policy and Practice.**

Introduces methods and applications of decision analysis, cost-effectiveness analysis, and benefit-cost analysis in public health policy and practice, including health care technology assessment, medical decision making, and health resource allocation. Examines technical features of these methods, problems associated with implementing them, and advantages and pitfalls in their application in setting public health policy. Open to juniors, seniors, and graduate students.

Spr PHP2350 S01 25213 W 12:30-2:50(05) (J. Bentkover)

**PHP 2360. Designing and Evaluating Public Health Interventions.**

Aims to develop skills in designing and evaluating public health interventions. Levels of intervention include the individual; families or small groups; organizations such as schools, worksites, health care settings; communities; social marketing and health communications; policy and environmental changes. Will identify personal and environmental factors that affect public health and discuss needs assessment, formative research, cultural sensitivity, behavior change theories, intervention mapping, process and impact/outcome evaluation and dissemination. Students will critique intervention studies and gain experience in developing a hypothetical behavior change intervention. Graduate students and AB-MPH undergraduates only. DPLL

Spr PHP2360 S01 24505 W 3:00-5:30(14) "To Be Arranged"

**PHP 2371. Psychosocial and Pharmacologic Treatment of Substance Use Disorders.**

Intended to provide an overview of the history of the treatment of substance use disorders; assessment methods designed to determine progress in substance use treatment; and the current most common types of psychosocial and pharmacologic treatments for substance use. Enrollment limited to 20 graduate and medical students. Instructor permission required.

Fall PHP2371 S01 16076 F 1:10-3:30(06) (P. Monti)

**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 communications interventions, theories of health communication and health behavior change) are presented sequentially early in the semester. Students will synthesize knowledge and demonstrate their understanding of the role of health communication through a final research project. Seniors with concentration in Community Health may enroll with instructor’s permission. Enrollment limited to 20 graduate and medical students. DPLL

Spr PHP2380 S01 24506 M 2:30-4:50(07) (K. Carey)

**PHP 2390. Quantitative Methods for Behavioral and Social Sciences Intervention Research.**

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

Fall PHP2390 S01 16077 Th 12:00-2:20(10) (C. Kahler)

PHP 2400. The U.S. Health Care System: Case Studies in Financing, Delivery, Regulation and Public Health. 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 PHP2400 S01 15899 M 9:30-11:50(16) (C. Koller)

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

Fall PHP2410E S01 15952 Th 12:00-2:20(10) (V. Mor)

PHP 2415. Introduction to Evidence-based Medicine. Unbiased assessments of the scientific literature by means of research synthesis methods are critical for formulating public health policy, counseling patients or prioritizing future research. We focus on the methods and uses of systematic reviews and meta-analyses and their applications in medicine and health policy. After course completion, and with some direction, students will be able to undertake a basic systematic review or meta-analysis. Enrollment limited to 15. Prerequisites: PHP 2120, 2150, or 2460; and PHP 2507/08 or 2510/11 (2508 and 2511 may be taken concurrently); and clinical background or training in basic concepts in medicine (must discuss with instructor).

Fall PHP2415 S01 16776 T 2:30-5:00(11) (T. Trikalinos)
Spr PHP2415 S01 25266 W 9:00-12:10(02) (T. Trikalinos)

PHP 2425. Doing Public Health: Getting It Done in the Real World. This course covers topics that MPH graduates will encounter in public health work and engages students with important challenges in public health practice. Class sessions will be as real-world as possible. We will choose a major current public health problem in RI and develop a coalition of agencies. Each student will learn about a different agency, develop its role in addressing the problem as a part of the coalition, and design a proposal for intervention, interacting with experienced public health practitioners, interviewing agency staff, gathering data, writing proposals, drafting budgets etc. Assignments will foster good communication within organizations and coalitions.

Fall PHP2425 S01 16946 T 3:00-5:30(11) (P. Nolan)

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

Fall PHP2450 S01 16411 M 3:30-5:50(15) (A. Trivedi)

PHP 2451. Exchange Scholar Program.
Fall PHP2451 S01 14442 Arranged 'To Be Arranged'

PHP 2455. Seminar on modern methods for HSR and CER (I). This graduate course will cover a number of methods topics in health services and comparative effectiveness research. This is the first semester of a 2-semester course, focusing on analysis of primary data. Prior exposure to theory is assumed; emphasis is on application. Example topics include predictive modeling, imputation for missing data, estimation of intervention effects (propensity scores; instrumental variables; difference in differences), pragmatic trials, competing risks analysis. For each methods topic the class will (1) briefly review theory; (2) critically appraise 1-5 applied papers; (3) conduct a practical exercise using a faculty-procured dataset.

Fall PHP2455 S01 16938 W 12:00-2:30(12) (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.

Fall PHP2470 S01 15904 Arranged Spr PHP2470 S01 25215 Arranged (P. Vivier)

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 25717 T 12:00-2:20(10) (O. Galarraga)

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

Fall PHP2507 S01 15972 W 6:00-8:00PM(17) Fall PHP2507 S01 15972 Th 1:00-2:20(17) (A. Gjelisvik)

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

Spr PHP2508 S01 25266 W 6:00-8:00PM(14) Spr PHP2508 S01 25266 Th 1:00-2:20(14) (A. Gjelisvik)

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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 15979 TTh 9:00-10:20(08) (C. Bauer)

**PHP 2511. Applied Regression Analysis.**

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 25270 TTh 9:00-10:20(08) 'To Be Arranged'

**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 15980 MW 9:00-10:20(16) (Z. Wu)

**PHP 2530. Bayesian Statistical Methods.**

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

Spr PHP2530 S01 25275 MW 9:00-10:20(02) 'To Be Arranged'

**PHP 2540. Advanced Methods for Multivariate Analysis.**

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

Spr PHP2540 S01 25273 MW 8:30-9:50(02) 'To Be Arranged'

**PHP 2550. Practical Data Analysis.**

Covers practical skills required for successful analysis of scientific data including statistical programming, data management, exploratory data analysis, model fitting and checking, simulation, missing data and proper interpretation and presentation of results. Tools will be developed through a series of case studies based on different types of data requiring a variety of statistical methods. The R programming environment will be emphasized, although students may use other packages. Upon completion of the course, students should be able to manipulate, program, analyze, display and present data and statistical models so that they are comprehensible for the non-statistical expert scientific collaborator. Students should have courses in probability and statistical inference at the level of Math 1610 and PHP 2510 as well as regression analysis at the level of PHP 2511. Some familiarity with the R programming language or some other statistical programming language or some other statistical programming language is advisable.

Fall PHP2550 S01 15985 MW 10:30-11:50(03) (C. Schmid)

**PHP 2580. Statistical Inference II.**

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

Fall PHP2580 S01 25274 MW 10:00-11:20(03) 'To Be Arranged'

**PHP 2601. Linear and Generalized 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 15984 TTh 1:00-2:20(10) (E. Kim)

**PHP 2602. Analysis of Lifetime Data.**

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

Fall PHP2602 S01 15982 TTh 2:30-3:50(11) (X. Luo)

**PHP 2603. Analysis of Longitudinal Data.**

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

Spr PHP2603 S01 25276 TTh 1:00-2:20(10) 'To Be Arranged'

**PHP 2604. Statistical Methods for Spatial Data.**

This course covers a variety of topics for spatial data, including data visualization, Bayesian hierarchical models, spatial models, as well as the computation techniques and statistical software to implement these models. Examples of applications will include, but are not limited to, spatial modeling of data from epidemiology, environmental studies and social sciences. Prerequisites: APMA 1650-1660 or PHP 2510-2511, and MATH 0520; some experience with scientific computing.

Spr PHP2604 S01 25277 MW 1:00-2:20(06) 'To Be Arranged'

**PHP 2610. Causal Inference and Missing Data.**

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

Fall PHP2610 S01 15986 TTh 9:00-10:20(08) (J. Hogan)

**PHP 2620. Statistical Methods in Bioinformatics, I.**

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

Spr PHP2620 S01 25278 TTh 10:30-11:50(09) 'To Be Arranged'

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 15905 M 12:00-12:50(12) (X. Luo)
Spr PHP2950 S01 25216 M 12:00-12:50(05) 'To Be Arranged'

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

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

PHP 2990. Thesis Preparation.
No description available.

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

Public Policy and American Institutions

PPAI 0100. Introduction to Public Policy.
An overview of policymaking and policy analysis in the contemporary United States. The course begins with an examination of traditional justifications for government action. We will then examine the discipline of policy analysis that has arisen to design and evaluate public policies. We will also consider critiques of the rational method and ask questions about how policy expertise fits into the political system. The course ends with classic works on organizations and implementation. Not open to graduate students. WRIT

Fall PHP0100 S01 14443 Arranged (K. Kelsey)
Spr PHP0100 S01 23810 Arranged 'To Be Arranged'

Who determines how public policy is made? Do public policies reflect what voters want, or do lobbyists, politicians, and bureaucrats really make the decisions? What factors motivate these different actors? This course examines public policy from the perspective of comparative politics. Over the course of the semester, we will examine policy making in the US and a number of industrialized countries in Western Europe and Japan. Topics studied include immigration policy, education policy, and family policy. Enrollment limited to 20 first year students. FYS WRIT

Fall PPAI0700J S01 16476 Th 3:00-5:20(02) (A. Pennock)

Broad overview of public policy analysis and program evaluation with emphasis on methodological issues involved in the analysis and assessment of government programs. Illustrations are drawn from a variety of substantive policy areas. Prerequisite: PPAI 0100, and POLS 1600 or EDUC 1110 or SOC 1100 or ECON 1620, or written permission of instructor. Enrollment limited to 40 Political Science and Public Policy concentrators.

Spr PPAI1200 S01 24716 TTh 1:00-2:20(02) (A. Pennock)

PPAI 1700B. Social Welfare Policy in the United States.
Exposes students to the key challenges for social welfare policy-making in the United States. Particular attention will be given to the formulation and administration of prominent welfare, health, and education policies.

Course materials also will explore how demographic and economic trends affect the implementation of social welfare policies. Instructor permission required. This course satisfies the Public Policy Problems requirement. WRIT

Fall PPAI1700B S01 15468 W 9:00-11:20(16) (T. Devine)

PPAI 1700F. Economics and Public Policy.
An economic analysis of major social programs in the United States. Topics include the possibility of market failure in the private sector, the redistribution of income, and incentive effects created by the programs. Specific policy issues to be examined are welfare reform, Medicaid, school finance reform, and the Earned Income Tax Credit (EITC). Enrollment limited to 20. This course satisfies the Public Policy Problems requirement.

Spr PPAI1700F S01 24848 MW 1:00-2:20(06) (T. Devine)

PPAI 1700K. Health Policy Challenges.
Introduces students to the U.S. health care system. Focuses on how the organization, financing, and market structure of the system affect the key issues of access, cost, quality, and equity of care. Specific issues include minority and vulnerable populations, technology, risk adjustment, managed care, long-term care, ethics, and public health. Enrollment limited to 20 juniors and seniors. This course satisfies the Public Policy Problems requirement.

Spr PPAI1700K S01 24729 F 3:00-5:40(15) 'To Be Arranged'

PPAI 1700T. Good Government.
An applied ethics course specifically for students with backgrounds in Public Policy, it will emphasize the primary themes of good government: openness, deliberation, and integrity. Students will develop an essay on good government and do research for case studies of ethical dilemmas involving public servants. Prerequisite: PPAI 0100 (or equivalent). Instructor permission required. This course satisfies the American Institutions requirement.

Fall PPAI1700T S01 15012 W 11:30-1:30(11) (R. Cheit)

PPAI 1700V. Nonprofit Organizations.
Contemporary nonprofits and their role in community building and shaping public policy are central to this course. Topics include how strong coalitions impact housing, welfare and children’s policy, organizing empowered communities, the influential and engaged donor and building the value of nonprofits. Case studies will be featured and new nonprofit models will be conceptualized to strategically address critical human need. Enrollment limited to 20 juniors, seniors, and graduate students concentrating in Public Policy. This course satisfies the American Institutions requirement.

Fall PPAI1700V S01 15461 Th 9:00-11:20(08) (W. Allen)

PPAI 1700Y. Crisis Management.
Introduces future policymakers to the multifaceted decision-making process in which governments, businesses, advocacy organizations, and the public are thrust into the throes of a policy crisis. Various crisis management theories, key stakeholders in a crisis situation, and the positive and negative effects of various strategies are analyzed. Enrollment limited to 20 junior and senior concentrators in Public Policy. This course satisfies the Public Policy Problems requirement.

Fall PPAI1700Y S01 15408 T 3:00-5:30(18) (D. Preston)

PPAI 1700Z. State and Local Government.
Examines state and local politics and government in the United States. The first part of the course examines the historical underpinning and division of power of the major political actors, institutions, and processes through both institutionalist perspectives. The second part focuses on the role of states in shaping significant policy areas including civil unions, education, healthcare, welfare, and the environment. This course satisfies the American Institutions requirement.

Fall PPAI1700Z S01 15411 F 9:30-12:00(16) (R. Kerbel)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
PPAI 1701K. Governance in the Academy: A University at Work in the 21st Century. Focuses on understanding and evaluating the governance of the modern university. Brown will be used as one example to illustrate and illuminate various aspects of university governance. Themes of leadership, effective decision-making, priority-setting, planning, conflict and crisis management, and optimal organizational structure and behavior will be discussed. Students will be well-versed in the language, structure, roles of actors, and general operations of university governance and equipped to analyze and assess the strengths and weaknesses of various models. Students with an interest in pursuing a career in academia or other non-profit organizations will benefit from this course. Enrollment limited to 20 juniors and seniors. Spr PPAI1701K S01 24725 M 3:00-5:30(13) (R. Carey)

PPAI 1701M. Juvenile Justice Institutions and Policy. Examines the historical and legal development of the juvenile justice system and provides an overview of delinquency theory. These theoretical frameworks are used to study the major institutions and current policy issues in the juvenile justice system. Special topics include teen and family courts, age of jurisdiction, racial disparities in juvenile justice, and female delinquency. Students engage in a semester-long project to develop a policy brief addressing a current issue in juvenile justice. Enrollment limited to 20 juniors and seniors. Instructor permission required. This course satisfies the Public Policy Problems requirement. WRIT Spr PPAI1701M S01 26045 F 9:30-11:50 (V. Cooley)

PPAI 1701O. Labor Market Policy. Students will learn how to use basic economics models to analyze important labor market policy questions. Topics will include minimum wages, payroll tax cuts, training subsidies, unemployment insurance, negative income taxes, and others. Students will also learn how to find and interpret important labor market data (for example, unemployment rates, payroll employment numbers, and wages) which are used by policy analysts to evaluate local and national labor markets. Prerequisite: ECON 1110, ECON 1130, or EDUC 1130; or instructor permission. Enrollment limited to 20. Spr PPAI1701O S01 24849 Th 9:30-11:50(02) (T. Devine)

PPAI 1701Q. Leading Social Ventures - Social Entrepreneurship in Action. Intractable social problems across the globe demand new, impactful solutions. Social entrepreneurs, driven by passion to change the world, fuse social missions and savvy business practices to create enterprises that solve these complex challenges. Leading Social Ventures is designed for students who are leading social ventures or aspire to create and lead them. "Action learning" means students will apply educational content to a specific venture in the early stage of development. Students will work on a venture that they have created or select an existing early-stage venture among provided choices. Enrollment limited to 25. Spr PPAI1701Q S01 24809 W 4:00-6:20(14) (A. Harlam)

PPAI 1701W. Race and Public Policy. Racial inequality is a fact of life in the United States. Evidence from a range of social science studies suggests that African Americans, and increasingly Latinos, are more likely than whites to experience a range of social and economic challenges, from school suspension and drop out, to arrest and incarceration, and the death penalty. In this course, you will develop a deeper and more nuanced understanding of racial inequality as a public policy problem. Enrollment limited to 20 juniors and seniors. This course satisfies the Public Policy Problems requirement. DPLL WRIT Fall PPAI1701W S01 16680 T 4:00-6:30(18) (S. White)

PPAI 1910. Social Entrepreneurship. This course introduces students to social innovation and social entrepreneurship and engages them in identifying significant issues, problems, tools, strategies and models that drive bold solutions to complex contemporary problems. Students understand the competencies that are needed to be transformative social entrepreneurs. The course emphasizes how enterprises are created and sustained. Enrollment limit is 40. Submit by 5pm on January 24, 2014 a required application here: http://bit.ly/17xelEs. You must attend the first class on January 23. Accepted students will be notified on January 27. Students who do not attend class on January 28 will forfeit their spot in the class. Spr PPAI1910 S01 24730 TTh 9:00-10:20(08) (W. Allen)

PPAI 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.

PPAI 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.

PPAI 1990. Public Policy Colloquium. An advanced two-semester research seminar for senior honors candidates in the public policy and American institutions concentration. Participants jointly consider strategies appropriate to researching and writing a senior paper before proceeding to individual research on topics they choose. Each participant is required to present a summary of his or her work to the colloquium. Fall PPAI1990 S01 15497 Arranged (R. Cheit)

PPAI 2000. Institutions and Policy Making. Studies how political, social, and economic institutions structure policymaking. Covers a variety of policy areas such as education, health care, technology policy, welfare, and social policy. Fall PPAI2000 S01 15410 M 10:00-12:20(03) (E. Godwin)

PPAI 2010. Economics and 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 PPAI2010 S01 15035 MW 1:00-2:20(06) (T. Devine)

PPAI 2020. Public Budgeting and Management. Explores how organizations use budgets and management tools to achieve broader social, economic, and political objectives. It is designed to show how these techniques can be used to improve organizational performance. Fall PPAI2020 S01 15034 MW 8:30-10:30(16) (P. Marino)

PPAI 2030. Statistics. Covers social and economic statistics and their role in public policy research. Among the topics explored are descriptive and inferential statistics, measurement, sampling, and multivariate analysis. Open to graduate students in Public Policy or Political Science. Fall PPAI2030 S01 15036 Th 1:00-2:20(10) (A. Pennock)

PPAI 2035. Statistics II for Public Policy Analysis. The course introduces students to the use of multiple regression analysis and program evaluation for analyzing data in the social sciences. We will study a variety of designs for empirical public policy analysis, from random assignment to quasi-experimental evaluation methods, and students will have the opportunity to analyze actual datasets. We will also study the strengths and weaknesses of alternative evaluation strategies. Spr PPAI2035 S01 24717 MW 2:00-3:30(02) (A. Hulme)

PPAI 2040. Policy Analysis. Investigates policy analysis and program evaluation with emphasis on assessment of government programs. Spr PPAI2040 S01 24718 Th 1:00-2:20(10) (E. Godwin)

PPAI 2045. Environmental Policy Analysis. The first half of the course focuses on the economic principles imbedded in the environmental problems facing local, state, and national societies across the globe. Concepts include common-pool resources, public goods, market failures, and the valuation of costs and benefits across environmental policies. The second half of the course builds upon the economic foundation through the integration of statistical and financial techniques common in the evaluation and management of environmental

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
policies. Throughout the semester the course will require students to accurately apply these quantitative methods to problem sets and case studies drawn from past and present environmental policy debates.

Spr PPAI2240 S01 24726 M 9:00-11:10(07) (M. Cladis)

PPAI 2500. Program Evaluation.
Designed to equip graduate students with the knowledge and tools needed to become critical consumers of evaluation research and to conduct evaluations of various social programs and policies. Following an introduction to the field of program evaluation, the course will address specific topics including: logic models, process evaluations, experimental and quasi-experimental designs for outcome evaluations, and alternative data sources. Class discussions and assignments will utilize evaluation examples from a variety of substantive policy areas. Prerequisite: PPAI 2030. Open to graduate students only.

Fall PPAI2050 S01 15413 M 3:00-5:30(15) (V. Cooley)

PPAI 2150. Strategic Communication.
Teaches students communication skills for social change, and examines how individuals and organizations frame issues in order to effect change.

Spr PPAI2150 S01 24727 M 3:00-5:30(13) (E. Bryant)

PPAI 2350. Thinking, Planning and Acting Strategically.
This course will focus on the strategic trends and issues which impact the public and nonprofit sectors and the role of strategic planning and strategic thinking as fundamental tools of public and nonprofit institutions to build high performance organizations, increase the value of their programs and services and enhance problem-solving. This course has been designed to support students in acquiring a mastery of practical skills in strategic planning and strategic thinking.

Fall PPAI2350 S01 16525 TTh 2:30-3:50(11) (M. Kaplan)

PPAI 2400. Cost Benefit Analysis.
An introduction to the theory and practice of cost-benefit analysis (CBA). Topics include valuation of cost and benefits in primary and secondary markets, discounting, existence values, contingent evaluation, sensitivity analyses, and ethical considerations. The course examines federal and state guidelines regarding CBA and the application of CBA in these contexts via case studies. Prerequisites: PPAI 2010 and 2030. Open to MPA and MPP students in PPAI.

Spr PPAI2400 S01 24810 T 3:00-5:30(11) (A. Pennock)

PPAI 2540. Urban Economic Policy.
This course will introduce students to the economic analysis of urban policy. We will use economic theory to analyze why cities exist, where they develop, how they grow, and how activities are spatially arranged within urban areas. As we ask each of these questions, we will examine how public policy can influence the outcome and review empirical evidence. As time allows, we will also examine the economics of poverty, housing, and other issues within the urban context. Prerequisite: PPAI 2010 or instructor permission.

Spr PPAI2540 S01 26065 M 9:30-11:50 (T. Devine)

PPAI 2550. Managing and Leading in Public Affairs.
Examines issues related to leading and managing in the realm of public affairs, covering foundation topics such as: honor, ethics, and accountability; management and organizational theory; organizational behavior; managerialism, performance, and strategic management; leadership; personnel management and social equity. Examining tools for effective relationship and networking building, cases will be used to apply concepts learned.

Spr PPAI2550 S01 24811 W 9:00-11:20(02) (J. Slattery-Bownds)

PPAI 2600. Social Science Data Technologies.
Covers the applied use of data sources and computer software programs. Its goals are to teach students how to use common software packages and access policy-relevant data.

Spr PPAI2600 S01 24812 TTh 2:30-3:50(11) "To Be Arranged"

PPAI 2655. Regulation and Compliance.
This course is designed to prepare students for work in heavily regulated policy arenas (which is pretty much all of them). You will receive training in the disciplines necessary to design regulations, evaluate compliance options, and generate regulatory analyses that policymakers will find persuasive. This is a practitioner's course. As such, it is first and foremost a quantitative class. Familiarity with the basic concepts of microeconomics and statistics is assumed.

Fall PPAI2655 S01 15412 T 10:00-12:20(10) (E. Godwin)

PPAI 2750. Mediation, Negotiation, and Arbitration Strategies.
This graduate-level seminar is a synthesis of negotiation, arbitration, and mediation theories and practices as applied to public policy professionals. Course topics include interagency negotiation and cooperation, professional and workplace negotiations, agreements in legislative and advocacy environments, using non-governmental bargaining partners, role of government regulators, and international and cross-cultural agreements. Emphasis on analysis of ethical issues and strategies in the planning, formulation, and implementation of negotiated agreements. Enrollment limited to 16. Instructor permission required.

Fall PPAI2750 S01 15467 W 6:00-8:20PM(09) (R. Kerbel)

A greater understanding of the moral dimensions of public policy can improve the assessment of policy alternatives. Course begins with a brief overview of various ethical theories, with particular attention given to distributive justice and utilitarianism. Uses a variety of domestic policy case studies to identify and examine the role of ethics in policy analysis and policy choice. The latter part of the course will discuss the ethical conduct and responsibilities of policy professionals. Open to graduate students only.

Spr PPAI2755 S01 24720 Th 4:00-6:30(17) (V. Cooley)

PPAI 2800. Internship.
Practical job experience in the public, private, or non-profit sector.

Spr PPAI2800 S01 24721 Arranged "To Be Arranged"

PPAI 2900. Research Workshop.
Group research projects centering on topics organized by the instructor. Students will be organized into small teams that will undertake research projects such as policy analysis, evaluation studies, organizational assessments, or data projects. Results of these projects will be presented in the seminar.

Fall PPAI2900 S01 16808 Arranged (W. Allen)

PPAI 2980. Graduate Independent Study.
Please check Banner for the correct section number and CRN to use when registering for this course.

PPAI XLIST. Courses of Interest to Concentrators in Public Policy.

Religious Studies
RELS 0030. The Apocalyptic Imagination.
In anticipation of popular apocalyptic expectations for 2012, this course will explore the origins and nature of apocalypticism. Beginning with modern apocalyptic thought in ancient Jewish writings (including the Books of Daniel and Ezekiel in the Hebrew Bible), we will explore the socio-historical context for ancient Jewish visionary ascents texts, early Christian apocalypses (including the Book of Revelation) and later interpretations and use of ancient "prophecy" concerning the end of the world. This course includes a close reading of ancient texts and an analysis of the 2012 apocalyptic imagination through popular literature and movies.

Spr RELS0030 S01 24912 MWF 11:00-11:50(04) (N. Denzey)

RELS 0500. Love: The Concept and Practice.
A study of love (in classical and modern texts and in film) that provides a window into a host of religious, philosophical, and ethical issues. Topics include the potential conflict between divine and human love, between transcendent and earthly love, and the nature of friendship, romance, marriage, and love at the crossroads. Although the scope is love in the West, the Kamasutra and other texts furnish a comparative component.

LILE Fall RELS0500 S01 15004 MWF 2:00-2:50(07) (M. Cladis)

This course explores the past and present of spirituality in the United States. Using the familiar phrase "spiritual but not religious" as a point of departure, this introductory course not only surveys the wide range of ideas, practices, and desires that Americans often associate with
spirituality but also asks why the concept of spirituality has drawn those associations. Through encounters with such varied phenomena as suburban shopping malls, evangelical revivals, bestselling novels, yoga, environmentalism, and Oprah, students will reflect upon what spirituality’s popularity illustrates about prevailing attitudes toward issues including institutional affiliation, religious pluralism, personal experience, consumerism, nationalism, and secularism.

RELS 0065. On Being Human: Religious and Philosophical Conceptions of Self. An examination of classic and contemporary views on the nature of human existence. Central themes include human freedom, the relation between reason and emotion, and the significance of personal history and memory. We also ask how conceptions of who we are shape views about how we should live. Sources include religious and philosophical texts as well as recent films. LILE WRIT

RELS 0068. Religion and Torture. The debates about the moral and legal status of torture have acquired a new urgency since 9/11. People are now questioning the consensus of law and human rights declarations that torture is never permissible. Indeed, some argue that in extreme cases, it may be obligatory to torture a captive for information that could save many lives. This class explores the recent debates about torture from secular and religious perspectives. It also deals with more general themes related to torture: What are the nature and effects of pain? Are human beings sacred, and does sacredness involve a prohibition against torture? LILE WRIT

RELS 0071. Believers, Agnostics, and Atheists in Contemporary Fiction (JUDS 0050A). Interested students must register for JUDS 0050A.

RELS 0090L. Radical Romantics: Politics, Ecology, and Religion. We will endeavor to create an intimate community of learning as we jointly explore political, environmental, and religious aspects of Romanticism (especially British Romanticism). It has become commonplace to think of Romanticism as nostalgic notions of the pastoral or narcissistic reports of the individual’s private gaze on the sublime. In contrast to this approach, we will focus on the radical political and environmental perspectives embedded within Romantic religious and poetic sensibilities. In the process, we will reflect on how this Romantic heritage can serve as a contemporary public resource for the cultivation of interrelated environmental and democratic beliefs and practices. FYS WRIT LILE

RELS 0110. Christian Classics. 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. DPLL WRIT LILE

RELS 0120. The Classical Chinese Philosophy of Life. An introduction to the origins and early development of the indigenous religious thought of China from the oracle bone divination of the Shang Dynasty to the ethical philosophy of Confucianism and the cosmology and mysticism of Daoism. The course will seek to identify and elucidate the basic elements of the distinctive Chinese world view and demonstrate how they have shaped the nature of religious practice and experience and how they have been shaped by them. Works of interpretative scholarship will be used to supplement the primary texts in translation that will form the course. Optional lab section.

RELS 0145. Karma, Liberation + Rebirth. Karma, Sanskrit for the "action" that makes up a human life, has been a central concern for the religious traditions of South Asia throughout their history. Hinduism, Buddhism and Jainism share the belief that after death people are reborn, taking on lives according to their actions in lives previous. In these traditions, liberation from the cycle of rebirth becomes the ultimate goal of human existence. This course examines the ideas of karma, rebirth and liberation in Hinduism, Buddhism and Jainism from historical, cosmological, ritual, narrative, iconographic and theological points of view. We also look at these ideas in Western culture. Fall RELS/0145 S01 16809 Th 4:00-4:30(02) (F. Moore-Gerety)

RELS 0150. Islam Unveiled. In this course, the historical origins and development of Islam will be studied in light of the sources and communities that shaped it. Themes to be explored include the central doctrines of Islam as derived from the Qur’an and traditions (sunnah), the development of Islamic law (shari‘ah) and the alternative, yet parallel, paths of Muslim killeology, philosophy, and mysticism (Sufism), and controversial issues among contemporary Muslims. WRIT DPLL LILE

RELS 0200A. Christianity and Economic Inequality. In the face of the vast, increasing economic inequality, this sophomore seminar interrogates the role of religious institutions and individuals. Do our religious institutions sustain or challenge economic inequality, and how? We will attempt to answer this question with a focus on three types of texts: classical texts that shaped 20th Century U.S. Christian consciousness (e.g., Weber, Niebuhr, and Ayn Rand); contemporary works that analyze the effects of economic inequality on the social fabric (e.g., Stiglitz, Freeland, Wilkinson/Pickett); and texts that clarify the vital roles some contemporary religious movements are playing in supporting economic inequity (e.g., Bowler, Walton, Byrne). SOPH

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
RELS 0550. Tibetan Buddhism and the West.
This course traces the history and development of the various lineages of Tibetan Buddhism from its origins in Indian Buddhism through to encounters between Tibet and the West in the modern period. The course investigates the religious, political, and geographical conditions in Tibet that influenced the development of some of the unique characteristics of the lineages of Tibetan Buddhism. The course explores key doctrines, practices, institutions, and religious leaders of the major lineages, and delves into key events in the modern period, beginning with the age of missionaries and explorers and ending with the Cultural Revolution and subsequent diaspora.
Fall RELS0550 S01 16810 TTh 9:00-10:20(08) (J. Lindahl)

RELS 0640. Dying To Be With God: Jihad, Past and Present.
This course will examine the concepts of martyrdom and jihad, past and present. We will begin with a comparison of Jewish, Christian, and secular ‘martyrdom,’ but focus extensively on the concept and evolution of jihad and jihad ideology in Islam, asking: How are war and martyrdom presented in the sacred texts of religious traditions? Historically, how have religious people idealized and problematized the martyr in different ways? In what ways have modern religious revivalism, geopolitical conflict and nationalism changed how people appropriate martyrdom and jihad today?
Enrollment is contingent on attendance on the first day of class. DPLL LILE WRIT
Spr RELS0640 S01 25439 TTh 10:30-11:50(09) (N. Khaiek)

RELS 0810. Conservatives vs. Liberals: Religion and Identity in America.
This course explores how Americans have cultivated, articulated, and contested religious and cultural identities during the twentieth- and twenty-first centuries. Identifying and interrogating apparent oppositions between religious conservatives and liberals, students will consider whether and why such oppositions have developed and persisted. Throughout the seminar, students will engage varied theoretical, historical, and thematic approaches to the study of religious identity, evaluating how attention to such issues as politics, ideology, gender, and class illumine the ways in which people come to understand themselves and others.
Spr RELS0810 S01 25440 T 4:00-6:30(16) (D. Vacu)

RELS 0825. Foundational Texts in African American Theology.
Central topics and foundational texts in the field of scholarship historically known as Black Theology. Major African American responses to those writings by Marxists, Womanists, process theologians, and religious humanists. DPLL LILE
Fall RELS0825 S01 16486 TTh 10:30-11:50(09) (A. Willis)

RELS 0830. Religion, Reason, and Ethics from Kant to Nietzsche.
The nineteenth century witnessed revolutionary transformations in thinking about the power and limits of human reason, the relation between reason and religion, revelation and moral truth, and the role of humanity in creating the morality and religion, the significance of history, and the plurality of religions. This course examines major thinkers from this period who continue to shape our own assumptions and reflection. WRIT LILE
Fall RELS0830 S01 15003 MWF 11:00-11:50(04) (T. Lewis)

"Religious freedom," former Secretary Hilary Rodham Clinton remarked in 2009, "provides a cornerstone for every healthy society." It is, Clinton continued, "a founding principle of our nation." As Clinton’s remarks illustrate, the concept of religious freedom is central to how people perceive the history of the United States and its position in the world today. But what is religious freedom? Does it actually exist? Has it ever? This seminar invites students to ask and answer these and other questions about the contested concept, engaging such varied issues as race, secularism, law, media, money, pluralism, and foreign policy.
Fall RELS0845 S01 15672 Th 4:00-6:30(18) (D. Vacu)

Intensive introduction to classical and contemporary theories of religion and the principal methods for the study of religion. Junior seminar for religious studies concentrators. Enrollment limited to 25. WRIT LILE
Fall RELS1000 S01 15019 M 3:00-5:30(15) (P. Nahme)

Interested students must register for JUDS 1635.
Spr RELS1050 S01 25578 Arranged "To Be Arranged"

An introduction to the history of Japanese religion in the early and medieval periods, with some attention to related modern and contemporary manifestations. Emphasis on the development of both native practices ("Shinto") and Buddhism, and on the historical interaction between them. Readings include primary texts in translation and selected modern interpretations. A previous course in Asian religion or culture is recommended but not required.
Fall RELS1190 S01 16479 TTh 10:30-11:50(09) (J. Sawada)

RELS 1205. Ancient Egyptian Religion and Magic (EGYT 1420).
Interested students must register for EGYT 1420.
Spr RELS1205 S01 25324 Arranged "To Be Arranged"

RELS 1210. Religion and Gender in the Ancient Mediterranean.
A consideration of the relationships between constructions of gender and religious systems in the Hellenistic and Roman periods, including but not limited to Christianity and Judaism. Prerequisites: courses in Early Christianity (RELS 0400 or 0410), or courses in Ancient Judaism (JUDS 0630), or courses in Greek and/or Roman religion.
Spr RELS1210 S01 24916 T 4:00-6:30(16) (N. Denzey)

RELS 1216. Imagining the Gods: Myths and Myth-making in Ancient Mesopotamia (AWAS 1100).
Interested students must register for AWAS 1100.
Spr RELS1216 S01 25323 Arranged "To Be Arranged"

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. WRIT LILE DPLL
Fall RELS1325A S01 16072 TTh 1:00-2:20(10) (S. Harvey)

RELS 1370B. Philosophy of Mysticism.
Covers important attempts to understand the nature of religious experiences and mysticism. We will look at several philosophical issues surrounding religious experience, including: (a) whether mystical experiences are too private for outsiders to understand or evaluate them; (b) what the relationship between religious experiences, language, and culture is; (c) whether religious experiences justify religious beliefs; and (d) how gender and religious experiences are related. We will treat theorists from various perspectives, including philosophical, historical, theological, psychoanalytic, and neuroscientific. Previous work in philosophy courses (or philosophically-intensive courses) is highly recommended. Enrollment limited to 20.
Spr RELS1370B S01 24319 M 3:00-5:30(13) (S. Bush)

RELS 1370C. David Hume and Religion.
This course will consider and challenge traditional scholarly views of philosopher David Hume as a critic of Christianity, by examining a wide range of his writings (letters, historical writings, moral enquiries, philosophical and religious writings). How might his corpus inform work in philosophy of religion? Previous coursework in philosophy or philosophy of religion strongly advised. Enrollment limited to 20.
Spr RELS1370C S01 24917 W 3:00-5:30(14) (A. Willis)

RELS 1395. The Shape of the Divine: Images in the Religions of India.
Why do Hindu deities have so many heads and arms? How do devotees interact with religious images in a temple, festival, or performance? What happens when religious icons are removed from a sanctified space and displayed in a museum? We will explore the answers to these questions, and many more, as we examine the complex lives and multiple uses of images in the Hindu, Buddhist, and Jain traditions. Using textual, visual, and material sources, this course offers students a critical introduction to one of the most fascinating and important features of religious life in South Asia.
Spr RELS1395 S01 26130 TTh 2:30-5:30(11) (E. Cecil)
Entails a careful reading of the entire text of the *Chuang Tzu* in translation. Secondary sources on the philosophy and textual criticism of the book--drawn from the writings of Graham, Liu Hsiao-kan, Ivanhoe, Mair, Roth, and others--are also read. Seminar format. Pre-requisites: At least one of the following courses: RELS0040; RELS0120; UNIV0540.
Spr RELS1410 S01 24919 Th 4:00-6:30(17) (H. Roth)

RELS 1445T. The Karma of Words (EAST 1950F)
Interested students must register for EAST 1950F.
Fall RELS1445T S01 16941 Arranged 'To Be Arranged'

RELS 1525. Christian-Muslim Relations in the Middle Ages (HIST 1970N)
Interested students must register for HIST 1970N.
Fall RELS1525 S01 16418 Arranged 'To Be Arranged'

This course examines questions of representation and image through the lens of religion and secularism. Art is often imagined as the replacement for religion in a secular age, and the museum serving as a site of reverence and awe. With the rise of modern and contemporary art, however, the coherence of the social value of the “aesthetic” has, like that of religion, faltered. This course is offered in connection with a project entitled “The Art of Invisibility.” The key assignment will be the production of an online catalogue to accompany an art exhibit, which will include works by RID students.
Fall RELS1725 S01 16168 T 4:00-6:20(18) (E. Oliphant)
Fall RELS1725 S01 16168 T 4:00-6:30(18) (E. Oliphant)

RELS 1736. Religion and Global Media.
Whether communing with a distant God, starting a revolution, or making the invisible visible, the religious use of media presumes and generates remarkable acts of creativity and flourishing. In accounting for the complexity of religious worlds we will confront the question of what media is, what information it conveys as well as efficacies, and how it may act as evidence for claims of all sorts. This course will take a broad approach to the study of media and religion. Ideas, after all, circulate not only through television, radio, Facebook, and Twitter, but also in images, signs, symbols, and language itself.
Spr RELS1736 S01 25442 Th 4:00-6:30(17) (E. Oliphant)

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.

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.

An examination of the categories of race, religion, and ethnicity among Greeks, Romans, Jews, and Christians in antiquity. How did they use (or not) these different modes of identity?
Fall RELS2011 S01 15414 M 9:00-11:00(10) (M. Satlow)

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 the fifth century (Ezra-Nehemiah, Malachi). Prerequisite: Knowledge of biblical Hebrew and permission of the instructor.
Fall RELS2100E S01 15673 M 5:30-7:50(15) (S. Oyan)

Survey of Ugaritic grammar followed by readings in mythic and epic literature (e.g. the Baal Cycle, *Kirta, Aqhat*) and ritual texts. Prerequisite: Knowledge of the grammar of one Semitic language. Open to graduate students only.
Spr RELS2100F S01 24920 M 5:30-7:50(13) (S. Oyan)

RELS 2105. Akkadian Literary and Religious Texts (AWAS 2400).
Interested students must register for AWAS 2400.
Fall RELS2105 S01 16042 Arranged 'To Be Arranged'

RELS 2400H. Christians and Muslims in the Early Middle Ages.
This graduate course explores the relationship between Christian and Muslim communities, broadly speaking, from the rise of Islam through the period of the Crusades and up to the Fall of Constantinople in the fifteenth century. It examines the material and social relationship of the Muslim community to various denominations of Christians in Arabia and the Levant in the early Middle Ages, and will progress through the era of the Crusades and more developed Sunni and Shi‘i sectarianism, assessing the theological and cultural impact of inter confessional relations on these phenomena in the High Middle Ages.
Spr RELS2400H S01 24921 W 3:00-5:30(14) (N. Khalek)

RELS 2450. Exchange Scholar Program.
Fall RELS2450 S01 14451 Arranged 'To Be Arranged'

RELS 2600M. Ethical Formation.
How do people become good? This seminar focuses on theories of ethical formation with particular attention to practices, both physical and intellectual. We will consider classical virtue theory as well as the persistence in Western modernity of attention to the practices which virtuous character is formed.
Spr RELS2600M S01 24957 Th 12:00-2:20 (T. Lewis)

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 14452 Arranged 'To Be Arranged'
Spr RELS2890 S01 23818 Arranged 'To Be Arranged'

RELS 2910. Independent Research.
The staff is willing to offer independent reading courses in selected areas. See the Instructor for more information. Please check Banner for the correct section number and CRN to use when registering.

RELS 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall RELS2990 S01 14453 Arranged 'To Be Arranged'
Spr RELS2990 S01 23819 Arranged 'To Be Arranged'

Renaissance and Early Modern Studies

REMS 0300J. Altered States (ENGL 0300J).
Interested students must register for ENGL 0300J.
Spr REMS0300J S01 25576 Arranged 'To Be Arranged'

REMS 0310A. Introduction to Shakespeare (ENGL 0310A).
Interested students must register for ENGL 0310A.
Spr REMS0310A S01 25585 Arranged 'To Be Arranged'

REMS 0620. The Age of Rubens and Rembrandt: Visual Culture of the Netherlands in the 17th Century (HIAA 0620).
Interested students must register for HIAA 0620.
Spr REMS0620 S01 25934 Arranged 'To Be Arranged'

REMS 0710I. New Worlds: Reading Spaces and Places in Colonial Latin America (COLT 0710I).
Interested students must register for COLT 0710I.
Fall REMS0710I S01 15885 Arranged 'To Be Arranged'

REMS 1120F. Renaissance Latin Poetry (LATN 1120F).
Interested students must register for LATN 1120F.
Spr REMS1120F S01 25610 Arranged 'To Be Arranged'

REMS 1311K. Hamlet, in Theory (ENGL 1311K).
Interested students must register for ENGL 1311K.
Fall REMS1311K S01 16242 Arranged 'To Be Arranged'

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
SCSO 050B. On the Dawn of Modernity (POBS 0910).
Interested students must register for POBS 0910.
Fall SCSO0050B S01 16239 Arranged 'To Be Arranged'

SCSO 0120. Culture and Health (ANTH 0300).
Interested students must register for ANTH 0300.
Fall SCSO0120 S01 16240 Arranged 'To Be Arranged'

Interested students must register for HIST 0150B.
Spr SCSO0381 S01 25771 Arranged 'To Be Arranged'

SCSO 0470. Digital Media (MCM 0230).
Interested students must register for MCM 0230.
Spr SCSO0470 S01 25049 Arranged 'To Be Arranged'

SCSO 0520. Modern Science and Human Values (PHIL 0060).
Interested students must register for PHIL 0060.
Spr SCSO0520 S01 25634 Arranged 'To Be Arranged'

SCSO 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; other may enroll with permission of instructor. LILE WRIT
Spr SCSO1000 S01 25633 TTh 10:30-11:50(09) (J. Poland)

SCSO 1384. Science in the Marketplace (HIST 1783).
Interested students must register for HIST 1783.
Spr SCSO1384 S01 25572 Arranged 'To Be Arranged'

SCSO 1385. History of Medicine I: Medical Traditions in the Old World Before 1700 (HIST 1490).
Interested students must register for HIST 1490.
Fall SCSO1385 S01 15722 Arranged 'To Be Arranged'

SCSO 1386. History of Medicine II: The Development of Scientific Medicine in Europe and the World (HIST 1491).
Interested students must register for HIST 1491.
Spr SCSO1386 S01 25574 Arranged 'To Be Arranged'

SCSO 1387. Environmental History (HIST 1790).
Interested students must register for HIST 1790.
Fall SCSO1387 S01 15735 Arranged 'To Be Arranged'

SCSO 1523. Time (PHIL 1670).
Interested students must register for PHIL 1670.
Fall SCSO1523 S01 16296 Arranged 'To Be Arranged'

SCSO 1700C. Science and Technology Policy in the Global South.
Junior-senior seminar exploring the relationships among science, technology, society, and public policymaking in the Global South. Exemplar countries are South Africa, Brazil, India, and China. Biotech, nanotech, public health, environment, and science training policies are among those closely examined. Three writing assignments, plus electronic conversations with counterparts in the Global South.
Fall SCSO1700C S01 16689 Th 4:00-6:30(02) (G. Augusto)

SCSO 1700F. Health Inequality in Historical Perspective (BIOL 1920B).
Interested students must register for BIOL 1920B.
Fall SCSO1700F S01 15759 Arranged 'To Be Arranged'

SCSO 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. LILE
Fall SCSO1700P S01 16488 T 4:00-6:30(18) (J. Poland)

SCSO 1700S. Environmental Change: Ethnographic Perspectives (ANTH 1552).
Interested students must register for ANTH 1552.
Spr SCSO1700S S01 25575 Arranged 'To Be Arranged'

SCSO 1700T. Descartes’ World (HIST 1979H).
Interested students must register for HIST 1979H.
Spr SCSO1700T S01 25050 Arranged 'To Be Arranged'

Interested students must register for HIST 1979F.
Fall SCSO1700U S01 15760 Arranged 'To Be Arranged'

Interested students must register for HIST 1970G.
Fall SCSO1700X S01 16262 Arranged 'To Be Arranged'

For scholars and practitioners in many fields of natural and social sciences, engineering and technology, and the humanities, an understanding of indigenous knowledges (IKS) and their interaction with other forms of knowledge is becoming imperative. Using theoretical frameworks from an interdisciplinary literature and practitioners’ thinking, as well as cases, this seminar will be a rigorous critical introduction to IKS in contemporary life, probing a variety of locales and epistemic spaces where IKS and science coexist; learning about and interrogating ways to study indigenous knowledges; and thinking about practice where
different knowledges and technologies "cross". Four graded writing/digital assignments; no prerequisites.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Instructor(s)</th>
<th>Days</th>
<th>Time</th>
<th>CRN</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCS017000S01</td>
<td>16737</td>
<td>T</td>
<td>4:00-6:20(18)</td>
<td>G. Augusto</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCS017000Y01</td>
<td>16737</td>
<td>T</td>
<td>4:00-6:30(18)</td>
<td>G. Augusto</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SCSO 1900. Senior Seminar in Science and Society.**

This is an advanced seminar that uses a Problem Based Learning style pedagogy to explore real-world problems 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 SCS01900 S01 16297 Th 4:00-6:20(02) H. Cook

**SCSO 1970. Independent Study in Science and Society.**

Independent reading and research work in Science and Society is available to students who have completed introductory and intermediate level work in Science and Society. A decision to enroll must be made via consultation with the concentration advisor and the faculty advisor for the course. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Prerequisite: SCSO 1400. Open to junior and senior concentrators in Science and Society; instructor permission required. S/NC.

**SCSO 1971. Independent Study in Science and Society.**

Independent reading and research work in Science and Society is available to students who have completed introductory and intermediate level work in Science and Society. A decision to enroll must be made via consultation with the concentration advisor and the faculty advisor for the course. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course. Prerequisite: SCSO 1400. Open to junior and senior concentrators in Science and Society; instructor permission required.

**SCSO XLIST. Courses of Interest to Students Concentrating in Science and Society.**

### Slavic Languages

**Czech**

**CZCH 0100. Introductory Czech.**

Introduces the performance of basic tasks in Standard Czech, highlights of Czech culture, and a worldview of a nation uniquely located on the threshold of western and eastern Europe. Emphasis on oral communication. Five meetings per week and use of audio/visual materials. Enrollment limited to 18.

- Fall CZCH0100 S01 14844 Arranged (M. Fidler)
- Spr CZCH0100 S01 24174 Arranged(13) (M. Fidler)

**CZCH 0200. Introductory Czech.**

Introduces the performance of basic tasks in Standard Czech, highlights of Czech culture, and a worldview of a nation uniquely located on the threshold of western and eastern Europe. Emphasis on oral communication. CZCH 0200 includes readings of annotated literary texts on the Web. Five meetings per week and use of audio/visual materials. Enrollment limited to 18.

- Spr CZCH0200 S01 24175 Arranged(13) (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. DPLL LILE FYS WRIT

- Spr CZCH0320A S01 25773 W 3:00-5:30(14) (M. Fidler)

### Polish

**PLSH 0100. Introductory Polish.**

Introduction to Polish language and culture. Oral and written communication in Polish; emphasis on the literary and everyday culture of Poland. Five meetings per week, plus use of audio, video, and web materials.

- Fall PLSH0100 S01 16306 Th 12:00-12:50(03) (M. Harrison)
- PLSH0100 S01 16306 MWF 10:00-10:50(03) (M. Harrison)

**PLSH 0200. Introductory Polish.**

Introduction to Polish language and culture. Oral and written communication in Polish; emphasis on the literary and everyday culture of Poland. Five meetings per week, plus use of audio, video, and web materials.

- Spr PLSH0200 S01 25541 Th 12:00-12:50(03) (M. Harrison)
- Spr PLSH0200 S01 25541 MWF 10:00-10:50(03) (M. Harrison)

**PLSH 0300. Intermediate Polish.**

This course is for students who have completed first-year Polish. In this course you will further develop skills in speaking, reading, writing and understanding Polish. By the end of this course, you will be able to carry on basic conversations in Polish on many topics from your daily life. You will be able to write notes and simple letters to Polish friends or keep a journal in Polish. You will also have the skills to read basic texts. Enrollment limited to 18.

- Fall PLSH0300 S01 16043 Th 2:30-3:20(11) (M. Harrison)
- Fall PLSH0300 S01 16043 MWF 11:00-11:50(11) (M. Harrison)

**PLSH 0400. Intermediate Polish.**

This course is designed for students who have completed the Introductory Polish language sequence (PLSH 0150/0100, 0200 and 0300) or have otherwise acquired basic proficiency required for the second year sequence. In this course you will continue to develop and refine your speaking skills and will be able to carry on conversation on many topics from your daily life. You will continue developing reading and writing skills by reading increasingly more elaborate authentic texts and writing essays, and your listening skills will be cultivated by in-class interactions and listening to authentic Polish audio and video recordings.

- Spr PLSH0400 S01 25645 Th 1:00-1:50(04) (M. Harrison)
- Spr PLSH0400 S01 25645 MWF 11:00-11:50(04) (M. Harrison)

### Russian

**RUSS 0100. Introductory Russian.**

Introduction to Russian language and culture. Oral and written communication in Russian; emphasis on the literary and everyday culture of Russia and the former U.S.S.R., including the changes that have reshaped everyday life for citizens of Russia. Five meetings per week, plus use of audio, video, and web materials. Enrollment limited to 18.

- Fall RUSS0100 S01 15008 MWF 9:00-9:50(18) (L. Debenedette)
- Fall RUSS0100 S01 15008 Th 9:30-10:20(18) (L. Debenedette)
- Fall RUSS0100 S02 15384 MWF 10:00-10:50(18) (L. Debenedette)
- Fall RUSS0100 S02 15384 Th 12:00-12:50(18) (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 24686 Th 9:30-10:20(03) (L. Debenedette)
- Spr RUSS0110 S01 24686 MWF 12:00-12:50(03) (L. Debenedette)
- Spr RUSS0110 S01 24686 MWF 10:00-10:50(03) (L. Debenedette)

**RUSS 0123. Dissidents from Socrates to Snowden.**

Why do some individuals are willing to experience exile, or execution for the sake of articulating an alternative view? How do they articulate and justify their relentless pursuit of truth and justice? Even though the goals of these dissidents might vary, as do the orthodoxyes which they
threaten, reading these authors is an immensely useful and rewarding activity. The purpose of the course is twofold: to discuss the writings of these magnificent men and women within their diverse cultural contexts, but we also to keep an eye on what they tell us about ourselves and our current predicament. DPLL SOPH

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 24694 MWF 9:00-9:50(02) (L. Debenedette)
Spr RUSS0200 S01 24694 TTh 12:00-12:50(02) (L. Debenedette)
Spr RUSS0200 S02 24697 MWF 11:00-11:50(04) (L. Debenedette)
Spr RUSS0200 S02 24697 TTh 12:00-12:50(04) (L. Debenedette)

RUSS 0300. Intermediate Russian.
Continues development of language proficiency while broadening understanding of contemporary Russian culture via readings in literature and history. Expansion of vocabulary for dealing with conversational topics and review of Russian grammar. Features literary and nonliterary readings in Russian, as well as video and computer resources. Five class meetings per week. Prerequisite: RUSS 0110 or RUSS 0200 or RUSS 0250 or placement by exam. Enrollment limited to 18.

Fall RUSS300 S01 15010 MWF 11:00-11:50(04) (L. Debenedette)
Fall RUSS300 S01 15010 TTh 9:30-10:20(04) (L. Debenedette)

RUSS 0320C. Demons and Angels in Russian Literature.
The literary images of fallen angels, as well as various poetic demonologies in Russian literature extend from the medieval apocrypha, up to famous works of the twentieth-century literature, like, for example, Bulgakov’s Master and Margarita or Dostoevsky’s Demons. Although, the Russian literary angels are in many respects related to their Western counterparts, the apocalyptic character of Russian spiritual culture makes them in many respects unique. Examining these images, the course addresses the important questions concerning the human condition in general. Angels as one critic said, “represent something that was ours and that we have the potential to become again”; their essence is otherness. Consequently, their literary representations explore the possibilities of human existence as well as its central paradigms like, love, rebirth, mortality, or ‘fallenness.’ The course will analyze the images of angels and fallen angels (demons) in the works of the nineteenth and the twentieth-century Russian prose, visual art, and film - from romanticism to ‘postmodernism’ - in the context of the world literature and culture. Authors to be studied: Byron, Lermontov, Balzac, Dostoevskii, Solgub, Bulgakov, Nabokov, Erofeev. We will also discuss films by Tarkovsky and Wenders, Russian icons, and paintings by Vrubel. In English. Enrollment limited to 20 first year students. DPLL FYS LILE

Fall RUSS320C S01 16192 M 3:00-5:30(15) (M. Oklot)

RUSS 0400. Intermediate Russian.
Continues development of language proficiency while broadening understanding of Russian culture via readings in literature and history. Includes expansion of vocabulary for dealing with conversational topics and review of Russian grammar. Features literary and nonliterary readings in Russian, as well as video and computer resources. Five class meetings per week. Prerequisite: RUSS 0300 or placement by exam. Enrollment limited to 18.

Spr RUSS0400 S01 24699 TTh 12:00-12:50(04) (L. Debenedette)
Spr RUSS0400 S01 24699 TTh 9:30-10:20(04) (L. Debenedette)
Spr RUSS0400 S02 24699 MWF 11:00-11:50(04) (L. Debenedette)

RUSS 0500. Advanced Russian.
Examines selected topics in Russian culture and history as depicted in readings, the media, and Russian and Soviet films. Language work emphasizes increasing facility with spoken Russian and developing writing skills. Includes work on advanced grammar and syntax. Five class meetings per week. Prerequisites: RUSS 0350 or RUSS 0400 or placement. Enrollment limited to 18.

Fall RUSS0500 S01 15011 TTh 12:00-12:50(04) (L. Debenedette)
Fall RUSS0500 S01 15011 MWF 11:00-11:50(04) (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 24703 MWF 1:00-1:50(06) (L. Debenedette)
Spr RUSS0600 S01 24703 TTh 12:00-12:50(06) (L. Debenedette)

RUSS 1019. Reading Revolution in Russian Women’s Writing.
This course will use Russian women’s writing, primarily fiction, to develop a new understanding of Russian literary and cultural history. By weaving together literature, historical texts, and feminist theory from Russia and beyond, we will reveal a narrative of Russian literary and cultural history that is generally relegated to footnotes, a narrative that contains different catalyismic shifts and revolutions than those that occurred at the state level, both temporally and qualitatively. No knowledge of Russian required.
LILE WRIT

Fall RUSS1019 S01 16498 W 3:00-5:30(17) (E. Kahle)

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 15498 MWF 12:00-12:50(12) (L. Debenedette)

RUSS 1120. Special Topics in Russian Studies II: Advanced Reading and Conversation.
A continuation of Russian 1110. Examines aspects of Russian culture as manifested in Russian literature. Readings range from fairy tales to contemporary works. Extensive classroom discussion and frequent writing assignments. Prerequisite: RUSS 1110, 1700, or written permission. May be repeated once with permission of the instructor. Enrollment limited to 18.

Spr RUSS1120 S01 25839 Arranged ‘To Be Arranged’

RUSS 1290. Russian Literature in Translation I: Pushkin to Dostoevsky.
Survey of major works of Russian literature of the early and mid-19th century. Authors to be studied include Karamzin, Pushkin, Lermontov, Gogol, Turgenev, Leskov, and Dostoevsky. Lectures and discussion. No knowledge of Russian required. Discussion sections to be arranged. WRIT

Fall RUSS1290 S01 15037 TTh 10:30-11:50(13) (V. Golstein)

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 dissident. Authors to be studied include Tolstoy, Chekhov, Solgub, Blok, Mayakovsky, Babel, Olesha, Zamiatin, Bulgakov, and Solzhenitsyn. Lectures and discussion. No knowledge of Russian required.
WRIT

Spr RUSS1300 S01 24172 Arranged (V. Golstein)

RUSS 1340. The Russian Novel.
Mikhail Bulgakov’s Master and Margarita, Andrei Bely’s Petersburg, and Fedor Sologub’s Petty Demon are read in depth as 20th-century milestones in the development of Russian novel—particularly as continuation and reaction to the prose of Nikolai Gogol and Fedor Dostoevskii, which opens the course. Other authors included in the course: Nabokov, Platonov, Erofeev. In English.

Spr RUSS1340 S01 25476 Arranged (M. Oklot)

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
RUSS 1470. New Russia and Ukraine: Culture and Politics in Post-Soviet Space.
Political and cultural aspects of transition from the authoritarian Soviet state to democracy. This transition will take considerable effort and time and will require change in people’s mentality. Enrollment limited to 40.
Fall RUSS1470 S01 16432 F 3:00-5:30(14) (S. Khrushchev)

RUSS 1500. Approaches to Russian Literature.
Reading in Russian of selected poetry and prose by important authors, among them Lomonosov, Karamzin, Derzhavin, Pushkin, Lermontov, Tютчев, Gogol, Fet, Dostoevsky, Chekhov, Briusov, Akhmatova, Sologub, Remizov, Blok, Bely, Zamiatin, Plinyak, and Mandelshtam. Lectures in Russian on literary problems, literary terms, and important aspects of literary history. Prerequisites: RUSS 0600 plus RUSS 0290 or 0310 or written permission.
Spr RUSS1500 S01 24953 W 3:00-5:30(14) (A. Levitsky)

RUSS 1720. Decadent Identities.
The course focuses on Decadent literature and culture and their responses to the loss of a unified human identity and their challenge to fundamental presuppositions about sexuality, social norms, and ethics around 1900. In our analyses of works of Russian and European literature and art, we will explore various meanings of the idea of "the decadent", and look at how these works put into play a range of theories of degeneration, evolutionism, the limits of the human, medical diagnostics, mystical ideologies, or criminal anthropology in their search for new models of identity and the world. DPLL LILE
Spr RUSS1720 S01 25477 Arranged (M. Oklot)

RUSS 1820. Dostoevsky.
An examination of Dostoevsky's major texts tracing his development as an artist, thinker, and religious visionary. The texts will be considered against the background of literary and cultural history of Dostoevsky's period. No knowledge of Russian required. WRIT
Fall RUSS1820 S01 14806 TTh 1:00-2:20(08) (V. Golstein)

RUSS 1840. Nabokov.
The course examines Vladimir Nabokov's (1899-1977) major achievements in prose in both Russian and American periods, paying particular attention to their cultural context (Russian émigré culture of the 1920s and 30s); the questions of his aesthetics, ethics, and metaphysics, as well as his engagement in the dialogue with other European modernist writers, especially with the existentialists. Readings include Nabokov's selected short stories and novels, such as The Defense, Invitation to a Beheading, Despair, The Eye The Gift, Pnin, or Lolita. In English. DPLL LILE
Fall RUSS1840 S01 15295 TTh 2:30-3:50(11) (M. Oklot)

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.
Spr RUSS1860 S01 26072 M 3:00-5:30(13) (S. Evdokimova)

Independent research project on topics related to Russian culture. Enrollment permitted only after the written proposal (instructions in the department office) is submitted to the Concentration Advisor and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Please check Banner for the correct section number and CRN to use when registering for this course. Each section limited to 10 students; instructor permission required.

RUSS 2610C. Russian Romanticism.
This course will examine the works of Zhukovsky, Batishkuv, Pushkin, Lermontov, Tютчев, Bestuzhev-Marlinsky, Odoevsky, and Gogol in the context of Romanticist literary culture. Students will also read works by other European authors associated with Romanticism to elucidate the extent of the adherence of Russian writers to Romanticist aesthetics and philosophy.
Only for Slavic concentrators writing their senior theses. For requirements and schedule, contact the department. Each section limited to 10 senior Slavic Studies concentrators.

SLAV 2210. Old Church Slavonic.
Introduction to Church Slavonic philology. Structural analysis of Old Church Slavonic. Readings in Old Church Slavonic texts. Fall SLAV2210 S01 14845 Arranged (M. Fidler)

SLAV 2450. Exchange Scholar Program.
Fall SLAV2450 S01 14457 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 14458 Arranged ‘To Be Arranged’
Spr SLAV2970 S01 23823 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 (including progress in the department office) is submitted to the DGS and Chair of the department (deadline: the last day of Add a course without fee period during the semester when the project is undertaken). Please check Banner for the correct section number and CRN to use when registering for this course. Each section limited to 10 students; instructor permission required.

SLAV 2990. Thesis Preparation.
For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall SLAV2990 S01 14459 Arranged ‘To Be Arranged’
Spr SLAV2990 S01 23824 Arranged ‘To Be Arranged’

SLAV XLIST. Courses of Interest to Concentrators in Slavic Languages.
Fall 2014
The following courses may be of interest to Slavic Languages concentrators. Please see the sponsoring department for the time and location of each course.

Judaic Studies
JUDS 1722 Money, Power, Sex and Love: The Modern Jewish Family in Europe and America

Spring 2015
The following courses may be of interest to Slavic Languages concentrators. Please see the sponsoring department for the time and location of each course.

Judaic Studies
JUDS 1719 The Pogrom: Violence in Modern Jewish History

Sociology

SOC 0020. Perspectives on Social Interaction: An Introduction to Social Psychology.
An introduction to the discipline of sociology examining the individual in social situations. Explores the social development of the person, the development of interpersonal relationships, and the problems of integrating the individual and social system. For each area, the personal and situational factors that bear upon the issue are investigated. The objective is to deepen understanding of the behavior of people in a social context. WRIT
Fall SOC0020 S01 14991 MWF 11:00-11:50(04) (G. Elliott)

America professes equality but exhibits many forms of inequality in schools, race relations, and income. An examination of contrasting elements of American society and a review of the role social science plays in public debate. To illuminate the debates, key topics, such as welfare, immigration, affirmative action, and environmental equity are considered.
Fall SOC0130 S01 14889 MWF 1:00-1:50(08) (M. White)

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 24322 MWF 12:00-12:50(05) (P. Henry)

SOC 0170. The Family.
The state of the contemporary family generates debate within and beyond sociology. That debate is considered by examining different definitions of family, changing gender roles within the family, and the family in cross-cultural context. Special issues include new family forms, such as gay and lesbian families and biological and step-parenthood, as well as changing patterns of work and housework.
Spr SOC0170 S01 24324 MWF 10:00-10:50(03) (C. Spearin)

SOC 0230. Sex, Gender, and Society.
An introduction to the sociological study of sex and gender. More specifically, this course explores how sexuality is perceived, defined, and experienced in the context of society. How sexuality influences our lives, is reflected in social norms, attitudes and beliefs, through public and private policies and practices, and the social institutions is also investigated. This class also focuses on how prevalent gender differences really are in our society and examines the social construction of gender.
Fall SOC0230 S01 14987 MWF 9:00-9:50(16) (C. Spearin)

Why do we follow social rules and conventions? And how is social change – that is, the making of new rules and expectations – possible? When we respond to rules, do we act as free-willing individuals or do we follow social structures we have no control over? These questions have motivated generations of sociologists, but many of the arguments have been already developed by the four “forefathers” of sociology: Karl Marx, Max Weber, Emile Durkheim, and Georg Simmel. Looking at the transformations around them – the rise of capitalism, the modern nation-state, rational bureaucracy, the metropolitan, the decline of religion, and much more – they developed arguments that allow us to better understand ourselves, our actions, and the contemporary political, economic and social transformations around us. WRIT
Fall SOC1010 S01 14994 TTh 1:00-2:20(10) (P. Henry)

SOC 1020. Methods of Social Research.
This course introduces students to the frameworks and methods of conducting sociological research – from both a qualitative and quantitative perspective. The aim is that students develop the skills to ask and answer interesting and important questions about sociological phenomenon. The focus is on designing and executing research, from identifying an interesting question and reviewing the relevant literature, to collecting and analyzing data, to drawing reliable inferences and presenting meaningful results. There is a heavy focus on reading and discussing academic research and working in research teams. By the end of the semester students will complete their own research projects.
Fall SOC1020 S01 15861 MWF 10:00-10:50(03) (C. Spearin)

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 14993 TTh 10:30-11:50(13) (D. Lindstrom)
Spr SOC1100 S01 24327 TTh 1:00-2:20(10) (G. Elliott)

SOC 1114. Law and Society.
A broad exploration of contemporary social-scientific scholarship on law and legal institutions, covering competing theoretical perspectives and drawing examples from diverse empirical settings. Lectures and discussions survey different ways in which social scientists study legal life, seeking contrasts and commonalities across the various perspectives. Coverage includes: Social-psychological models of rule-following and rule-breaking; social-structural linkages between law and the economy, stratification, and politics; and the dynamic relationship between law and...
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. WRIT

**SOC 1440. Intimate Violence.**

**SOC 1550. Sociology of Medicine.**

The sociopolitical context within which health, illness, and medical care are defined. Sociological materials are used to examine current developments in the health care field. Emphasis on identifying social and political forces that impinge upon the delivery systems and tracing their impact on the roles of practitioners and the health of their clients.

**SOC 1600. Comparative Development.**

An exploration of the economic, political, and social changes that constitute development. Both the historical experience of Europe and the contemporary Third World are considered. Major processes examined include state and nation-building, agricultural modernization, colonialism, industrialization, revolution and socialism, authoritarianism and democracy, and socioeconomic distribution. Emphasis on the countries of Africa, Asia, and Latin America.

**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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
SOC 1630. Transnational Social Movements and the Environment.  
Globalization presents distinct environmental challenges and alters the terrain upon which social movements mobilize and engage for change. How can we understand the relationships between globalization, the environment and society? In what ways is inequality being shaped in this context? How do social movements and advocacy networks engage transnationally to find leverage? Through readings, writing, film, multimedia projects, and engagement with case studies and social theory, this course explores how social movements and advocacy networks mobilize transnationally to achieve environmental justice and sustainability.  
Fall SOC1630 S01 16777 TTh 9:00-10:20(08)  (D. Ciplet)

SOC 1870A. Investing in Social Change  
Philanthropy -- "giving away money" -- sounds attractive and simple. But the very acts of contributing and receiving resources affect dynamics and relationships among all involved. We explore philanthropic strategies, social change, the sociological dimensions of philanthropy in historic and current practice. Students engage in teams to investigate a particular community concern, design an investment strategy, recommend the investment of grant dollars. Instructor permission required. Course enrollment is by application only. Applications can be found at swearercenter.brown.edu shortly before the start of class. Students who pre-register must still be selected through the application process and attend the first class meeting. Enrollment limited to 18. WRIT  
Fall SOC1870A S01 14995 TTh 2:30-3:50(11)  (L. Cook)

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. WRIT  
Spr SOC1870K S01 24348 M 3:00-5:30(14)  (M. White)

SOC 1870L. The Economic Foundations of Everyday Life.  
Critically examines the relationship between markets and individual, inter-personal, and community level social phenomena. Aims to help students develop knowledge and skills to understand markets as social institutions, evaluate them through different theoretical lenses, analyze their impacts on social life. Students also learn the skills of critical analysis and argumentation needed to form thoughtful opinion, take a critical position, make a decision about important economic and social issues. Thus, students gain expertise as informed actors and advocates in the social and economic system. Prerequisites: SOC 1010, SOC 1030, ECON 0110, equivalents, or permission of the instructor. Enrollment limited to 20. WRIT  
Spr SOC1870L S01 25870 W 3:00-5:30(14)  (J. Paczewicz)

SOC 1870N. Environmental Sociology.  
Since its formal inception in the late-1970s, environmental sociology has developed as a highly interdisciplinary field that simultaneously confronts core sociological questions and challenges. This seminar provides students with a selective overview of major approaches, debates, and interdisciplinary cross-currents shaping the field of environmental sociology. The general goal of the course is to deepen collective understanding of the dynamic interrelationships shaping human societies and the natural environment. To do so, we will consider how sociologists and others have conceptualized society-environment relations and critically assess the various approaches developed to examine those relations, their causes, and outcomes. WRIT  
Fall SOC1870N S01 15583 F 3:00-5:30(14)  (S. Frickel)
Fall SOC1870N S01 15583 F 3:00-5:20(14)  (S. Frickel)

SOC 1870P. Explaining China's Rise: Development and Accumulation in Contemporary China.  
Few questions pose more significance to scholars and policymakers than the "rise of China". As scholars grapple with explaining China’s rise, they also provide tantalizing prelites of the future of Chinese growth, by extension, the future of global economy. This course explores the character, conditions, consequences of the rapid Chinese economic growth that many have termed "capitalism with Chinese characteristics". 3 paradigms for explaining growth: a state-centered approach, a market-oriented approach, Marxist, accumulation-centered approach. 3 parts, each examining a separate paradigm of development, providing case studies this paradigm explains growth in specific industries and sectors of the Chinese economy.  
Fall SOC1870P S01 16477 M 3:00-5:30(15)  (J. Chuang)

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. WRIT  
Spr SOC1871B S01 24350 F 3:00-5:30(15)  (G. Elliott)

SOC 1871D. Sophomore Seminar in Sociology of Development.  
This seminar provides an introduction to the study of development. It looks at the diversity of understandings of the concept of development as well as its practical importance in the world. Students will read texts that present pressing questions and issues concerning development practices, policies, and theories. Efforts to connect broad theoretical debates to understanding contemporary problems will be encouraged. Enrollment limited to 20 sophomores. WRIT  
Spr SOC1871D S01 24349 M 3:00-5:30(13)  (J. Itzigsohn)

SOC 1871L. Innovators, Entrepreneurs, and Other Disruptors: The Case of Modern Turkey.  
The course explores life in contemporary Turkey with a focus on change agents. The founders of modern Turkey severed ties from the fading Ottoman Empire through a series of intense and disorienting social reforms. This set a precedent for sudden, sweeping social engineering of a top-down nature. Contemporary Turkish innovators, entrepreneurs and other disruptors are navigating issues of politics, culture and economy in new ways that serve as a models for the citizen-centered design of Turkey’s future. WRIT  
Spr SOC1871L S01 26059 T 4:00-6:30(16)  (L. Dicarlo)

SOC 1871M. Theories of the Third Sector and Civil Society.  
Third Sector- consisting of non-government, nonprofit, social movements organizations-- is an increasingly important segment of societies worldwide. This seminar will train students to critically apply organizational theory to evaluate the contributions, opportunities and challenges of this sector. We will probe critical third sector issues, including: impact, accountability, and sustainability of sector activities; commons issues in the sector such as legitimacy and co-option; the dynamics of government collaboration; and what constitutes social justice in the distribution of the sector’s resources. Prerequisite: at least one course in Sociology. Enrollment preference given to Sociology and BEO concentrators. WRIT  
Fall SOC1871M S01 16332 T 4:00-6:30(18)  (M. Kallman)

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 required (waivable by permission of instructor). Enrollment limited to 20 juniors, seniors, and graduate students. WRIT  
Fall SOC1871O S01 16110 M 3:00-5:30(15)  (M. Suchman)

SOC 1871S. Legacies of Inequality: The U.S. and Beyond.  
Does education equalize or widen gaps between people and nations? Has mass imprisonment reduced crime or exacerbated U.S. racial inequality? Does biology determine destiny, or is society more fluid? This course introduces theory and research on social inequality, emphasizing temporal dimensions of social differentiation. Attention will be paid to the characteristics we are given (race, sex), those we achieve (education, ...
income), and institutions and policies we encounter throughout the life cycle (schools, the justice system). By understanding the complexities of social inequality and the challenges of devising solutions, students will leave as informed citizens, better equipped to enter any profession.

Enrollment limited to 20. First year students require instructor permission.

Fall SOC1871S S01 16642 M 3:00-5:30(15) (M. Jackson)

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.

Fall SOC1871Z S01 14996 W 3:00-5:30(17) (M. Kennedy)

SOC 1950. Senior Seminar.
Advanced research seminar for sociology concentrators. Students take each semester in senior year to work on an honors thesis. Participants examine methods for analyzing, writing, and presenting thesis material and apply peer review techniques in assessing each other’s work. Culminates in presentation of thesis to the department. Students doing independent study research project may also participate with the instructor’s permission. Required for “honors” in sociology, WRIT

Fall SOC1950 S01 14998 MW 8:30-9:50(16) (M. Kennedy)
Spr SOC1950 S01 24347 MW 8:30-9:50(02) (M. Kennedy)

Supervised reading or research. Specific program arranged in terms of the student’s individual needs and interests. Required of intensive concentrators; open to others only by written consent of the Chair of the department. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

Research seminar for students writing an honors thesis. Under the direction of a faculty advisor, students construct and carry out a research project. The written report of the research is submitted to the advisor for honors consideration. A second reader selected by the thesis advisor certifies that the thesis is of honors quality. Please check Banner for the correct section number and CRN to use when registering for this course.

Research seminar for students writing an honors thesis. Under the direction of a faculty advisor, students construct and carry out a research project. The written report of the research is submitted to the advisor for honors consideration. A second reader selected by the thesis advisor certifies that the thesis is of honors quality. Please check Banner for the correct section number and CRN to use when registering for this course.

SOC 2000A. To Be Determined.
No description available.

Spr SOC2000A S03 25458 F 9:00-12:00(13) (M. Kennedy)

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 15000 T 1:00-4:00(10) (M. White)

SOC 2020. Multivariate Statistical Methods II.
This course is a graduate-level introduction to multivariate regression models for categorical and limited dependent variables. Subject matter includes modeling nominal and ordinal outcomes; truncated distributions; and selection processes. The course also reviews strategies for sample design; handling missing data and weighting in multivariate models. The course employs contemporary statistical software. Special emphasis is placed on model selection and interpretation. Prerequisite: SOC 2010
Spr SOC2020 S01 24353 T 1:00-4:00(10) (L. Vanwey)

This is a graduate-level course requires students to engage in detailed analysis and critical review of sociological thought of the 19th and early 20th centuries. The class will introduce students to the critical thinking, methodological innovation, and historical imagination of sociological theory by reading the original texts of the forefathers of sociology, including Karl Marx, Max Weber, Emile Durkheim and others.

Fall SOC2040 S01 14999 W 2:00-5:00(07) (N. Chorev)

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 social 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 24354 Th 9:00-12:00(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 15774 Th 2:00-5:00(11) (M. Fussell)

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.

Fall SOC2210 S01 15001 M 2:00-5:00(07) (J. Pacewicz)

SOC 2230. Techniques of Demographic Analysis.
Procedures and techniques for the collection, evaluation, and analysis of demographic data; measures of population composition, fertility, morality, and migration; construction of life tables, population and projections, population dynamics; responsible use of demographic methodology. Mandatory S/N/C.

Spr SOC2230 S01 25683 W 9:00-12:00(02) (M. White)

SOC 2320. Migration.
A review of the major patterns and differentials in international and internal migration in cross-cultural perspective. Emphasizes theoretical models of migration. Offered in alternate years.
Spr SOC2320 S01 25759 W 5:00-8:00PM(14) (D. Lindstrom)

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 comparissons.

Spr SOC2430 S01 24356 M 2:00-5:00(07) (A. Schnark)

SOC 2450. Exchange Scholar Program.
Fall SOC2450 S01 14460 Arranged 'To Be Arranged'
Spr SOC2450 S01 23825 Arranged 'To Be Arranged'

SOC 2460. Sociology Paper Writing Seminar.
This is a special seminar for graduate students in Sociology on the art of writing research papers for publication. The goals of the course are to: 1) learn the process of writing by drafting or redrafting a complete research paper, one section at a time 2) participate in the process of critical peer review 3) become knowledgeable about the process of submission/publishing in peer-reviewed journals in Sociology and related social science fields 4) become more familiar with the often hidden processes of journal review, publication ethics, and interpreting/responding to editorial decisions.

Fall SOC2460 S01 15030 M 9:00-12:00(16) (S. Short)

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Section</th>
<th>Instructor</th>
<th>CRN</th>
<th>Times</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 2500</td>
<td>Teaching Practicum in Sociology</td>
<td>Fall</td>
<td>SOC 2500 S01 15782</td>
<td>'To Be Arranged'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2510</td>
<td>Teaching Practicum in Sociology</td>
<td>No description available</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2610</td>
<td>Spatial Thinking in Social Science</td>
<td>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.</td>
<td>Soc 2610 S01 24357 T</td>
<td>9:00-12:00(08)</td>
<td>(J. Logan)</td>
<td></td>
</tr>
<tr>
<td>SOC 2612</td>
<td>Geographic Information Systems and Spatial Analysis for the Social Sciences</td>
<td>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 of the course, 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.</td>
<td>SOC 2612 S01 16339 Th</td>
<td>9:00-12:00(08)</td>
<td>(R. Franklin)</td>
<td></td>
</tr>
<tr>
<td>SOC 2960F</td>
<td>Global Political Economy</td>
<td>The new phase of capitalism, commonly called &quot;globalization,&quot; has radically transformed the postwar order. In this seminar, we will review several debates regarding current political-economic transformations, including: What caused the shift to neo-liberalism? What external economic pressures do states experience? Can domestic factors mediate such pressures? How do developing countries react to the new international environment? And what role does the United States and international organizations play in the new order?</td>
<td>SOC 2960F S01 24359 W</td>
<td>2:00-5:00(07)</td>
<td>(N. Chorev)</td>
<td></td>
</tr>
<tr>
<td>SOC 2960G</td>
<td>Spatial Data Analysis Techniques in the Social Sciences</td>
<td>Survey course of statistical methods that can be used to analyze spatial and/or clustered data at the individual and aggregate levels. Topics include multilevel analysis; fixed effects approaches; spatial choice; spatial autocorrelation, heterogeneity and dependence. Application with real data. Not a course about Geographic Information Systems (GIS) or mapping techniques. Prerequisites: SOC 2010 and 2020, or equivalents.</td>
<td>SOC 2960G S02 25975 F</td>
<td>9:00-12:00(02)</td>
<td>'To Be Arranged'</td>
<td></td>
</tr>
<tr>
<td>SOC 2960H</td>
<td>Demography of the Life Course</td>
<td>This seminar provides an overview of the development and current uses of the life course perspective in studies of demographic behaviors, process and change. Cohorts and age-grained patterns of behavior are considered as are the effects of social institutions, opportunity structures, and behavioral preferences all of which determine alternative life course pathways. Family origins and prior life experiences, along with ethnic/racial, gender, and cultural identities are examined as critical factors giving rise to inter-individual differences in demographic behaviors over the life course. The role of biography and agency in decisions about demographic behaviors and actual experiences are considered, as is their relationship to life course pathways, trajectories, and success. Graduate students and advanced Undergraduates with permission.</td>
<td>SOC 2960H S01 25036 Th</td>
<td>2:00-5:00(11)</td>
<td>(M. Fussell)</td>
<td></td>
</tr>
<tr>
<td>SOC 2960R</td>
<td>Urbanization in a Global System</td>
<td>The world is undergoing unprecedented wave of urban growth, and already more than half of the world's population in living in towns and cities. This course takes a global view of urban issues. In earlier developing regions such as North America and Europe, the focus is on a large scale restructuring of cities related to cycles of growth and decline, challenges to the social safety net, and replacement of local populations by immigrants with different racial, and ethnic or religious backgrounds.</td>
<td>SOC 2960R S01 15002 W</td>
<td>9:00-12:00(16)</td>
<td>(J. Logan)</td>
<td></td>
</tr>
<tr>
<td>SOC 2960S</td>
<td>Statistical Methods for Hierarchical and Panel Data</td>
<td>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.</td>
<td>SOC 2960S S01 25770 M</td>
<td>9:00-12:00(02)</td>
<td>(M. Jackson)</td>
<td></td>
</tr>
<tr>
<td>SOC 2960V</td>
<td>Sociology of Law</td>
<td>This seminar explores 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 &quot;Law and Society&quot; movement, for example: the psychology of justice; the anthropology of disputing; the economics of rule-making; 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 &quot;Rule of Law.&quot;</td>
<td>SOC 2960V S01 25869 F</td>
<td>2:00-5:00(07)</td>
<td>(M. Suchman)</td>
<td></td>
</tr>
<tr>
<td>SOC 2960W</td>
<td>Sociology of Gender</td>
<td>This is an advance graduate level seminar in sociology of gender. Our discussions will focus on the theoretical approaches that characterize research in this area. Research practice emphasized. Knowledge of social theory and social research methods is essential. SOC 2430 is a prerequisite. By the end of this course you should be able to, demonstrate an understanding of theoretical and methodological perspectives relevant to research of sociology of gender. Critically evaluate the strengths and weaknesses of current research. Demonstrate ability to synthesize, critique, and extend current literature in written form. apply sociological reasoning, and ability to conduct independent research.</td>
<td>SOC 2960W S01 16833 T</td>
<td>9:00-11:50(08)</td>
<td>(S. Short)</td>
<td></td>
</tr>
<tr>
<td>SOC 2970</td>
<td>Preliminary Examination Preparation</td>
<td>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.</td>
<td>SOC 2970 S01 14461 Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2970</td>
<td>Preliminary Examination Preparation</td>
<td>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.</td>
<td>SOC 2970 S01 23826 Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2980</td>
<td>Reading and Research</td>
<td>Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.</td>
<td>SOC 2980 Reading and Research</td>
<td>Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2981</td>
<td>Reading and Research</td>
<td>Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.</td>
<td>SOC 2981 Reading and Research</td>
<td>Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2990</td>
<td>Thesis Preparation</td>
<td>For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.</td>
<td>SOC 2990 S01 14462 Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC 2990</td>
<td>Thesis Preparation</td>
<td>For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.</td>
<td>SOC 2990 S01 23827 Arranged</td>
<td>'To Be Arranged'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOC XLIST</td>
<td>Courses of Interest to Students Concentrating in Sociology</td>
<td>Theatre Arts and Performance Studies TAPS 0030. Introduction to Acting and Directing</td>
<td>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</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 15631 TTh 9:30-11:50(09) (C. Crawford)
Fall TAPS0030 S02 15632 TTh 3:00-5:20(09) (C. Crawford)
Spr TAPS0030 S01 24880 TTh 9:30-11:50(09) (C. Crawford)
Spr TAPS0030 S02 24881 TTh 3:00-5:20(09) (C. Crawford)

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/NC. WRIT

Fall TAPS1000 S01 15647 F 10:00-12:50(18) (D. Taha)
Spr TAPS1000 S01 25015 T 1:00-3:30(10) (D. Taha)

TAPS 0200. Playwriting II.
Emphasis is placed on dramatic conventions, such as monologues, dialogue, mise-en-scene and time. Writing includes frequent exercises in various theatrical approaches. This course is limited to undergraduate students. Instructor permission required. Prerequisite: TAPS 0100 (formerly LITR 0110C and TSDA 0100). Enrollment is limited to 14 undergraduates per section. Instructor permission required. S/NC. WRIT

Fall TAPS2000 S01 15644 T 1:00-3:50(10) (R. Burkhardt)
Spr TAPS2000 S01 25019 F 1:00-3:30(06) (R. Burkhardt)

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 (registration 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 Office of Continuing Education.

Fall TAPS2200 S01 15637 MW 9:00-11:50(15) (B. Tannenbaum)
Fall TAPS2200 S02 15638 MW 1:00-3:50(15) (B. Tannenbaum)
Fall TAPS2200 S03 15639 MW 8:00-11:50(15) (B. Tannenbaum)
Fall TAPS2200 S04 15640 MW 1:00-3:50(15) (B. Tannenbaum)
Fall TAPS2200 S05 15641 MW 9:00-11:50(15) (R. Hartigan)
Spr TAPS2200 S01 25009 MW 9:00-11:50(13) (B. Tannenbaum)
Spr TAPS2200 S02 25010 MW 1:00-3:50(13) (B. Tannenbaum)
Spr TAPS2200 S03 25011 MW 9:00-11:50(13) (B. Tannenbaum)
Spr TAPS2200 S04 25012 MW 1:00-3:50(13) (B. Tannenbaum)
Spr TAPS2200 S05 25013 MW 9:00-11:50(13) (D. Ruppel)

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.

Fall TAPS2300 S01 15657 MW 10:00-11:50(10) (K. Moore)
Fall TAPS2300 S02 15657 TTh 1:00-2:20(10) (K. Moore)
Fall TAPS2300 S02 15658 MW 2:00-3:50(11) (A. Platt)
Fall TAPS2300 S02 15658 TTh 2:30-3:50(11) (A. Platt)
Spr TAPS2300 S01 24877 MW 12:00-1:50(10) (K. Moore)
Spr TAPS2300 S01 24877 TTh 1:00-2:20(10) (K. Moore)

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 TAPS2500 S01 15634 MW 10:00-11:50(03) (T. Hettrick)
Spr TAPS2500 S01 24882 MW 10:00-11:50(03) (T. Hettrick)

TAPS 0260. Stage Lighting.
This course is an introduction to stage lighting. Enrollment limited to 20.

Fall TAPS2600 S01 15659 MW 1:00-3:50(06) (T. Hettrick)

TAPS 0310. Beginning Modern Dance.
Introduction to the art of movement. Focuses on building a common vocabulary based on ballet, vernacular forms, improvisation, Laban movement analysis, American modern dance, and the body therapies. Individual work is explored. One and one-half hours of class, four days a week. Enrollment limited to 40. S/NC.

Fall TAPS3100 S01 15624 MWTh 1:00-2:20(06) (J. Strandberg)

TAPS 0320. Dance Composition.
Focuses on building the individual’s creative voice. A movement vocabulary is developed from Western techniques (ballet, American modern dance, Laban/Bartenieff movement analysis, vernacular forms, space-harmony/movement physics, and the body therapies) along with group improvisations and collaboration with artists in other disciplines. Enrollment limited to 40. S/NC.

Fall TAPS3200 S01 15623 MWF 10:00-11:50(03) (S. Smith)
Fall TAPS3200 S02 15623 MWF 10:00-11:50(03) (D. Taha)
Fall TAPS3200 S03 15623 MWF 10:00-11:50(03) (J. M. Smith)

TAPS 0901N. Body/Gesture/Cinema (MCM 0901N).
Interested students must register for MCM 0901N.
Fall TAPS0901N S01 15694 Arranged 'To Be Arranged'

TAPS 0903A. 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/NC.

Prerequisite does not apply to students registering for the Summer term through the Office of Continuing Education.
Spr TAPS0930A S01 24878 MWF 4:00-5:50(14) (T. Jones)

TAPS 0903C. The Actor’s Instrument: Stage Movement for Actors and Directors.
Students will be engaged in a process of exploration that centers on the physical relationship of the actor to the physical reality of the stage including sound, props and costumes. Work with a broad spectrum of contemporary and classic movement theories/approaches to constructing performance. Instructor permission required; interested students must come to the first class, fill out an application and participate in a sample class. Accepted students will be notified by the third class meeting. You must show up to every class meeting in order to keep your application active throughout the registration process. Enrollment limited to 18. Fall TAPS0930C S01 16761 MW 3:00-5:50(15) (K. Quinlin)

TAPS 0903F. Explorations in Clown and Physical Play.
Participating in this course, you will learn how to value and share your own unique ridiculousness by transforming mistakes into opportunities and limitations into creative expression. Based in physical exploration and improvisation, this work will implore you to recognize your relationship to fear, expand your sense of humor, connect to an audience, and play with abandon. Inspired by various kinds of clowns throughout history, you will begin to create your own vocabulary of play that will organically accumulate into solo and group performance pieces.
Spr TAPS0930F S01 25840 MW 10:00-11:50(03) (K. Quinlin)

TAPS 1000. Intermediate Dance.
Designed to expand the student’s knowledge of and proficiency in dance as an art form. Mainly a studio course, but selected readings, papers, critiques, and field trips are important components of the course. Prerequisite: TAPS 0310 or equivalent. Enrollment limited to 40. S/NC.
Spr TAPS1000 S01 25929 MWTh 1:00-2:20(06) (M. Bach-Coulibaly)

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
TAPS 1210. Solo Performance.
An exploration of the challenges and rewards of performing solo. Students research, write, and perform a one-person show. Other projects may include performance art, stand-up comedy, and monologuing. Substantial time commitment. Attendance mandatory. For advanced students with appropriate background and experience. Submit proposal and resume in the fall. For guidelines and information contact taps@brown.edu. Permission required in advance. Enrollment limited to 20.

This course offers an introduction to basic texts performance theory and then directs the methodological questions derived from those texts to the study of performance practices in context, exploring paleolithic, ancient, and medieval performance histories in global, cross-cultural perspective.

TAPS 1250. Twentieth-Century Western Theatre and Performance.
The study of key figures and movements in 20th-century Western theatre and performance, from approximately 1870 to 2000. We explore naturalism and alternative strategies to realism such as symbolism, futurism, surrealism and constructivism, along with myriad figures in the modern and postmodern "avant-garde." WRIT

TAPS 1270. Masking, Trancing, Performing, and Spectating in Non-Western and Circumpacific Performance.
An inquiry into specific traditions of performance - ritual, traditional theatre, contemporary theatre, and performed behavior in more or less day-to-day life - that exist or have existed in various (mostly) Asian settings and have been studied and documented by scholars, film-makers, and theatre artists. The emphasis will be on traditions that use masks as means of transforming the identity of the performer and of the world presented in performance. No prior experience in theatrical performance or in the study of Asia or anthropology is assumed. WRIT

TAPS 1280F. Introduction to Set Design.
A survey of the history and concepts of scenic design with emphasis on the art, artists and the social/political movements influencing the major period. Aims to give the designer a foundation in research approaches. Also to provide an examination of stylistic approaches and innovations in the context of the historical period. Enrollment limited to 12.

TAPS 1280S. Libretto Workshop for Musical Theatre.
This class is not only for the aspiring librettist but for any student desiring insight into the craft of book writing for musical theatre. The course will cover the basics of storytelling (plot, character development conflict, etc.) but specifically in terms of the musical. It will also detail the fundamentals of lyric writing, musical narrative and basic composition. We will examine three libretti (SWEENEY TODD: the classic horror, LITTLE SHOP OF HORRORS, the modern sci-fi and RENT, the contemporary adaptation). There will be lectures, group discussions, talks with guest professionals, and analysis of student assignments. Enrollment limited to 15 sophomores, juniors, and seniors.
TAPS 1340. Dance Styles.
This course focuses on the diverse styles, techniques and movement theories of Modern Dance. The students will practice the techniques and styles and will also study biographical material, view films, and attend live performances when possible. Enrollment limited to 40. C/NIC.

Spr TAPS1340 S01 24862 MW 3:00-4:20 PM (14) (J. Strandberg)
Spr TAPS1340 S01 24862 Th 2:30-3:50 PM (14) (J. Strandberg)

TAPS 1350. Dance Performance and Repertory.
Half course credit each semester. A study of dance repertory through commissioned new works, reconstruction, coaching, rehearsal, and performance. Guest artists and consultants from the American Dance Legacy Institute. Enrollment is by audition. Limited to skilled dancers. Instructor permission required. C/NIC.

Fall TAPS1350 S01 15628 Th 8:00 PM-10:00 PM (18) (J. Strandberg)
Fall TAPS1350 S01 15628 MW 6:30-9:30 PM (18) (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. C/NIC.

Spr TAPS1360 S01 24870 Th 8:00 PM-9:50 PM (16) (J. Strandberg)
Spr TAPS1360 S01 24870 MW 6:30-9:30 PM (16) (J. Strandberg)

TAPS 1370. New Works/World Traditions.
From research to performance, develops new dance theater pieces that are rooted in Mande dance and American dance. Includes study with Mande, American, and European artists in building a body of repertory for the concert stage. May be repeated for credit. By audition. C/NIC.

Fall TAPS1370 S01 16660 SuFS 3:00-6:00 PM (14) (M. Bach-Coulibaly)
Fall TAPS1370 S01 16660 Th 6:00-7:50 PM (14) (M. Bach-Coulibaly)
Fall TAPS1370 S01 16660 T 6:00-6:50 PM (14) (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. WRIT

Spr TAPS1380 S01 25022 W 3:00-5:30 PM (14) (S. Golub)

TAPS 1390. Contemporary Mande Performance.
This course examines the influences of contemporary society upon traditional Mande Performance. Equal emphasis will be given to the theory and practice of embodied performance as it responds to selected music traditions, oral literatures, and aesthetic traditions. Films, readings, guest lectures and collaborative research projects will help to facilitate a deeper understanding of contemporary Mande society and its artistic production. Students MUST register for a conference and a lecture section. Enrollment limited to 150. Students must attend the first class meeting, as final enrollment is determined by application/tryout.

Spr TAPS1390 S01 24863 T 6:00-7:50 PM (12) (M. Bach-Coulibaly)
Spr TAPS1390 S01 24863 Th 4:00-5:50 PM (12) (M. Bach-Coulibaly)

TAPS 1400. Advanced Performance.
An investigation into abstract and nonlinear modes of performance, working from fragmentary and recombined narrative, dramatic, and found sources. Seeks to evolve a conceptual approach to performance of the individual actor-director-writer through supervised and independent exercises and projects. Prerequisite: TAPS 0230. For juniors and especially seniors. Enrollment limited to 20. WRIT

Fall TAPS1400 S01 15629 Th 1:00-2:20 PM (10) (S. Golub)
Fall TAPS1400 S01 15629 MW 12:30-2:20 PM (10) (S. Golub)

TAPS 1410Z. Perspectives on Shakespeares Comedies (COLT 1410Z).
Interested students must register for COLT 1410Z.

Fall TAPS1410Z S01 16972 Arranged "To Be Arranged"

TAPS 1430. Russian Theatre and Drama.
An overview of Russian theatre and drama from the 18th century to the late 20th century. Emphasis on plays as texts and historical documents, and on theatrical conditions, productions, and innovations. All readings are in English. Russian area studies concentrators are encouraged to enroll. Instructor permission required. WRIT

Spr TAPS1430 S01 24871 MWF 11:00-11:50 AM (4) (S. Golub)

TAPS 1500H. Advanced Writing for Performance.
This course is an intense examination of the craft of writing scripts for the stage from germinal idea through production by analyzing students work in workshops, reading scripts and attending local performances. Students will learn proper script format, story outline and structure, characterization, plot, and the nuts and bolts of the script writing business. Moreover, they will write a full-length play or a series of one-acts. They will also be required to read and critique each other’s work and bring a significant number of script copies to class for workshop. Prerequisite: TAPS 0100 and 0200. Enrollment limited to 17.

Fall TAPS1500H S01 15666 Th 9:00-12:20 PM (8) (M. Gardley)

TAPS 1500L. Screenwriting.
Screenwriting is a course designed to familiarize the neophyte screenwriter with the basic principles of writing for the silver-screen. By closely examining produced films, in-depth readings of both good and bad scripts, and through the writing of our own, we will gain an understanding of how screenplays are written, and written well. The course will provide a foundation in the basics of the three-act act structure, dramatic action, character arc, the revision process, and an introduction to the business of screenwriting. By the end of the semester we will have produced and polished a 10 page/minute manuscript. Enrollment limited to 17.

Spr TAPS1500L S01 25017 Th 9:00-12:20 PM (8) (M. Gardley)

TAPS 1500J. Script Adaptation.
This class aims to develop skills and techniques for the creation of new dramatic works based upon previously published or performed material. The unit explores the process of creating a script from previously published source material. To achieve this goal, we will explore the problems inherent in creating dramatic material from source material of various forms. The module will enhance core skills in scriptwriting, dramaturgy and script analysis. Weekly classes will include lecture and discussion, readings, film screenings and writing exercises. Enrollment limited to 17.

Spr TAPS1500J S01 25718 Th 1:00-4:20 PM (10) (M. Gardley)

TAPS 1520. Seminar in Theatre Arts.
Seminar designed for senior theatre arts concentrators, required during Semester VII. Topics focus on career planning and theatre arts subjects not dealt with in other courses. Enrollment limited to seniors.

Fall TAPS1520 S01 15646 F 1:00-3:30 PM (8) (B. Ruppel)

TAPS 1630. Performativity and the Body: Staging Gender, Staging Race.
This course examines how we develop and interrogate different meanings around our bodies through performance practices in everyday life and on stage. Specifically, we analyze how race and gender are regulated, reinforced, reworked, and subverted through embodied modes of performance. We explore how raced and gendered bodies are constructed, reconstructed, and deconstructed through everyday performances of self from fashion to food to surgery. We will also examine works by playwrights, visual artists, and theatre artists who deploy performance practices to make, unmake, and remake historical, social, and political understandings of our bodies as raced and gendered. WRIT

Fall TAPS1630 S01 15651 Th 2:30-3:50 PM (8) (A. Nye)

TAPS 1900R. Queer Relations: Aesthetics and Sexuality (ENGL 1900R).
Interested students must register for ENGL 1900R.

Fall TAPS1900R S01 16247 Arranged "To Be Arranged"
TAPS 1070. 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 2200E. Historiography.
This graduate seminar is dedicated to a thorough examination of theater and performance historiography. The course will consider methodologies of writing about the past, concentrating on analyzing the writing of history and examining how historical information is obtained, imagined and disseminated in our field, where embodied practice is crucial to thinking. This course will necessarily consider how historiography is understood with the discipline of history as well as performance and theatre studies.

TAPS 2200N. Liveness: Performance and Necanism in Late Capitalism.
Has the "affect economy’s" 24/7 life shifted medial maps distinguishing live from object arts? As animacy and inanimacy warp, do orientations to duration, participation, and relation shift? Can liveness extend to the Paleolithic in today’s “new materialist” imaginary? If “Cinema is Dead,” does it join theatre as a zombie form? Modernist “animism,” “totemism,” and “primitivism” provide a backdrop to recent returns to animism in Chen, Bennett, Latour and others. Does theatre’s separation from ritual and possession demand rethinking via “relationscapes” and the critical turn to affect theory? Art/performance, theatre, cinema will be under discussion, from Euripides Bacchae to Gucci Bacchae.

TAPS 2270B. Performance in a Virtual World (MUSC 2270B).
Interested students must register for MUSC 2270B.

In the second year of the three-year MFA Playwriting Program, students are required to teach undergraduates Introductory and Intermediate Playwriting. This course readies MFAs for their teaching in advance of their time at the head of the classroom, provides them with mentorship during the conduct of their teaching, and assesses their experience at the end of their assignments. It is an intensive seminar, where the head of the Playwriting Program meets with students individually and as a team, sharing in the evolutions of curricular design and practice, offering close comment and tailored assignments (suggested readings; writing tasks).

TAPS 2310. Graduate Playwriting.
With Word as the bodging 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 graduate students every semester in residence. May be taken multiple times for credit. Undergraduates will be admitted with permission of the instructor. Contact Erik_Ehn@Brown.edu using "Grad PW" in the subject line. Permission will be given once manuscripts have been reviewed. S/NC

TAPS 2355P. The Politics of Precariousness and Resilience (POLS 2355).
Interested students must register for POLS 2355.

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 be rehearsals and performance responsibilities.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 10883 Arranged (S. Berenson)

TAPS 2620. Movement: The Alexander Technique. 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 10884 Arranged (S. Berenson)

TAPS 2630. Directing: The Director's Vision. This course is open only to students of the MFA Consortium program. Under close supervision, students will direct projects at the Consortium. Each student will be responsible for the creation of either a new or an established script. Students will meet regularly with the faculty to discuss process and progress.
Fall TAPS2630 S01 10885 Arranged (S. Berenson)

TAPS 2650. Acting: Problems of Style. This is a two-credit course and is open only to students of the MFA Consortium program. This is a scene study class with an emphasis on the problems of style and language in non-realistic plays. In addition to advanced work on Shakespeare's texts, the course will explore other playwrights, possibly including Ibsen, Strindberg, Shaw and Beckett.
Spr TAPS2650 S01 20217 Arranged (S. Berenson)

TAPS 2660. Voice: Singing with Joy. 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 20218 Arranged (S. Berenson)

TAPS 2670. Movement: Stage Combat, Clowning, and Other Physical Form. This course is open only to students of the MFA Consortium program. It will offer basic instruction in many physical areas including, but not limited to stage combat, juggling, mime, tumbling and clowning.
Spr TAPS2670 S01 20219 Arranged (S. Berenson)

TAPS 2680. Directing: Critical Analysis. 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 directly a professional production at Trinity Rep Company.
Spr TAPS2680 S01 20220 Arranged (S. Berenson)

TAPS 2700. Acting: Monologue Performance. This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. Acting assignments will include solo work presented in a variety of ways. These might include a selection of monologues and songs presented by the students to show the full range of his or her abilities. A performance might also include a solo piece written by the student and presented as a single-actor production.
Fall TAPS2700 S01 10886 Arranged (S. Berenson)
Spr TAPS2700 S01 20221 Arranged (S. Berenson)

TAPS 2710. Voice: Dialects and Accents. 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 10887 Arranged (S. Berenson)

TAPS 2720. Physical Theatre. This course is open only to students of the Brown University/Trinity Rep MFA Consortium program. This course will explore various kinds of physical theatre, and ways in which the actor can be free, spontaneous and open in rehearsal and performance. Areas of exploration will include Commedia, mask and yoga.
Fall TAPS2720 S01 10888 Arranged (S. Berenson)

TAPS 2730. Directing: Design in the Collaborative Process. 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 10889 Arranged (S. Berenson)

TAPS 2750. Acting and Directing: Practical Application. This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. The course will prepare acting students for a graduate showcase which will be performed in New York City and Los Angeles for agents, casting directors, and other professionals in the industry. Directing students will stage a New York showcase of their work for agents, artistic directors, and other theatre professionals. The course will also cover audition and interview techniques. Video work will be explored in detail, examining the difference between stage and on-camera direction and performance.
Spr TAPS2750 S01 20222 Arranged (S. Berenson)

TAPS 2760. Professional Performance. This is a two-credit course and is open only to students of the Brown University/Trinity Rep MFA Consortium program. It will include performance work in a variety of venues including, but not limited to, Trinity Rep’s mainstage. Work might include major and/or minor roles at Trinity, as well as understudy responsibilities for the professional company. Based on their participation in this course, students will be awarded their union cards so that they are able to enter the professional area upon graduating.
Spr TAPS2760 S01 20223 Arranged (S. Berenson)

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 budget, publicity, press relations, marketing and development.
Spr TAPS2770 S01 20224 Arranged (S. Berenson)

TAPS 2770. Comprehensive Examination Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing for a preliminary examination.
Fall TAPS2970 S01 14463 Arranged ‘To Be Arranged’
Spr TAPS2970 S01 23828 Arranged ‘To Be Arranged’

TAPS 2795. 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 second and third year.

TAPS 2980. Graduate Level Independent Reading and Research. A program of intensive reading and research on selected topics arranged in terms of special needs and interests of the student. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

TAPS 2981. Master's Thesis Research. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

TAPS 2990. Thesis Preparation. For graduate students who have met the tuition requirement and are paying the registration fee to continue active enrollment while preparing a thesis.
Fall TAPS2990 S01 14464 Arranged ‘To Be Arranged’
Spr TAPS2990 S01 23829 Arranged ‘To Be Arranged’

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

UNIV 0540. Introduction to Contemplative Studies.
Introduction to the new field of Contemplative Studies focusing on identifying methods human beings have found, across cultures and across time, to concentrate, broaden and deepen conscious awareness. We will study what these methods and experiences entail, how to critically appraise them, how to experience them ourselves, and how they influence the development of empathy, health, and well-being. Preference will be given to students who have taken RELS 0040, "Great Contemplative Traditions of Asia."
Spr UNIV0540 S01 24922 W 3:00-5:30(14) (H. Roth)

UNIV 1001. The Israeli-Palestinian Conflict: Contested Narratives.
We will compare the radically different narratives that Palestinians and Israelis tell themselves and the world 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 transcendent their conflicting narratives and attain mutual understanding. All sources in English translation. Course will include an eight-day study tour to Israel/Palestine during Spring Break. At least one course in one or more of such areas as Middle East Studies, Israel Studies, International Relations, Political Science, Comparative Literature relevant to the topic of the course. LILE DPLL
Spr UNIV1001 S01 25504 MWF 11:00-11:50(04) (D. Jacobson)

UNIV 1520. The Shaping of World Views.
To many students, an exclusive emphasis on specialized studies fragments the "world" in which they live. A widespread feeling of loss pervades the minds of students who often come to universities to learn right from wrong, to distinguish what is true from what is false, but who realize at the end of four years that they have deconstructed their freshman beliefs, values, and ideologies, but have created nothing to replace them. This course examines the diversity of worldviews both synchronically and diachronically and surveys various explanations for such diversity. Enrollment limited to 30. Conducted in English. WRIT
Spr UNIV1520 S01 24547 MWF 2:00-2:50(07) (O. Almeida)

UNIV 1700. Transformation of the Research University.
This seminar will focus on recent transformations of the academic, instructional and administrative character of the elite American research universities. Emphasis will be on selected pressure points (such as research funding, diversity, technology, market influence) that drive change and shape the future.
Fall UNIV1700 S01 15106 W 3:00-5:30(17) (W. Simmons)

Urban Studies

URBN 0210. The City: An Introduction to Urban Studies.
What is special about urban life? How and why do cities differ? How has the way we think about the city changed over time? Can we solve urban problems? This course offers an interdisciplinary approach to the history, physical design, spatial form, economy, government, cultures, and social life of cities in the U.S. and beyond. DPLL LILE WRIT
Fall URBN0210 S10 15013 TTh 2:30-3:50(11) (J. Paczewicz)

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 20 first year students.
FYS
Fall URBN0230 S10 15015 W 3:00-5:30(17) (R. Carter)

URBN 1000. Fieldwork in the Urban Community.
A fieldwork course with limited enrollment. Each student undertakes a fieldwork project in close collaboration with a government agency, a nonprofit association, or a planning firm. In weekly seminar meetings, the class examines a series of urban issues and discusses fieldwork methodology. Students also schedule regular appointments with the instructor. Restricted to Urban Studies concentrators. WRIT DPLL
Spr URBN1000 S01 24413 Th 2:30-3:50(11) (J. Paczewicz)

This lecture and discussion course will provide students with an introduction to the history, politics, and culture of United States cities and suburbs from the end of World War II to the close of the twentieth century. Readings are drawn from recent work in the political, social, and cultural history of U.S. cities as well as primary sources rooted in the period under study. DPLL WRIT LILE
Spr URBN1200 S01 25103 MWF 2:00-2:50(07) (S. Zipp)

URBN 1220. Planning Sustainable Cities.
What does sustainability mean in the context of degraded urban areas? Can sustainable development be achieved in cities? This course offers a comprehensive, yet critical understanding of the competing theories and practices of sustainable development as applied to cities. Topics include sprawl, energy-efficient transportation, brownfields, community land trusts, green architecture, renewable energy, air and water pollution, and waste recycling.
Fall URBN1220 S01 15799 MWF 11:00-11:50(04) (Y. Sungu-Eryilmaz)

URBN 1230. Crime and the City.
This course surveys aspects of crime and policing in the contemporary urban environment. Topics will include community policing strategies from Skid Row in Los Angeles to Times Square in New York City, low-level criminality, neighborhood change, transgression, and the ways in which urban-based subcultures—skateboarders, graffiti writers, gutter punks, gang members and homeless youth—occupy public space. DPLL LILE
Fall URBN1230 S01 15017 TTh 9:00-10:20(08) (S. Bloch)

URBN 1240. In Search of the Global Black Metropolis.
This course is an interdisciplinary exploration of the ‘black metropolis.’ Beginning with the significance of this term in the U.S., students explore black urban life in places such as Philadelphia, Bronzeville, and Harlem. The course then broadens to frame the ‘global black metropolis,’ given migration, diaspora, transnationalism and the span and diversity of black urban life around the world. Case studies include Accra, Dublin, Hong Kong, Los Angeles, Paris, and Rio de Janeiro. Students explore the links that extend across locations, considering how black city dwellers have fared and might collectively proceed within the globalized and urbanized world. DPLL
Spr URBN1240 S01 25948 TTh 9:00-10:20(08) (R. Carter)

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. Enrollment limited to 15 during registration. Instructor will select additional 5 students after first day of class. Instructor permission required. WRIT
Fall URBN1870D S01 16527 Th 4:00-5:30(02) (R. Azar)

URBN 1870R. Bottom-up Urbanism.
This seminar examines urbanism conceived as the autonomous, creative, and everyday making of city space. It analyzes the concepts of ‘right to the city’ and ‘do-it-yourself’ urbanism through protests over public space in Istanbul, Occupy encampments across the U.S., individual gestures of anarchist contestation, and graffiti and street artists’ small-scale acts of aesthetic transgression. We engage the major conversations in the academy and on the streets about possible urban futures, including Latino urbanism from a thridspace perspective and in its guerrilla, insurgent, participatory, and vernacular incarnations. DPLL WRIT
Spr URBN1870R S01 25105 M 3:00-5:30(13) (S. Bloch)

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.

Enrollment limited to 15 during registration. Instructor will select additional 5 students after first day of class. Instructor permission required. WRIT 18070 Th 4:00-6:30(17) (R. Azar)

URBN 1970. Independent Reading and Research.
A specific program of intensive reading and research arranged in terms of the special needs and interests of the student. Open primarily to concentrators, but others may be admitted by written permission. Section numbers vary by instructor. Please check Banner for the correct section number and CRN to use when registering for this course.

This seminar introduces students to independent research and writing skills necessary for successful and timely completion of the honors thesis. Course work includes presentation of one's own thesis drafts and peer review of classmates' work. All students who submit an approved honors thesis proposal shall enroll in URBN 1981 for the spring semester of their thesis research and writing. Concentrators may also enroll in the course during semesters 6 or 7 in preparation for the honors thesis, but must present a written proposal in place of chapters. Enrollment limited to 20 juniors and seniors in Urban Studies. S/NC

Spr URBN1981 S01 25016 Arranged (S. Zipp)

URBN XLIST. Courses of interest to Concentrators in Urban Studies.
Fall 2014
The following courses offered by other departments will fulfill Core Discipline and Seminar 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.

Africana Studies
AFRI 0600 Race, Gender, and Urban Politics

American Studies
AMST 1611A Making America: Twentieth-Century U.S. Immigrant/Ethnic Literature

Applied Mathematics
APMA 1650 Statistical Inference I

Archaeology and the Ancient World
ARCH 1900 The Archaeology of College Hill

Economics
ECON 1620 Introduction to Econometrics

English
ENGL 0710A City Novels

Engineering
ENGN 1930S Land Use and Built Environment: An Entrepreneurial View

Environmental Studies
ENVS 1400 Sustainable Design in the Built Environment

Geological Sciences
GEOL 1320 Introduction to Geographic Information Systems for Environmental Applications

History of Art and Architecture
HIAA 0770 Architecture and Urbanism of the African Diaspora

HIAA 0900 City and Cinema

HIAA 1910A Providence Architecture

History
HIST 131 Land Use and Capitalism, 1350-2013

HIST 1820 American Urban History to 1870

Sociology
SOC 0130 American Heritage: Democracy, Inequality, and Public Policy

SOC 1020 Methods of Social Research

SOC 1100 Introductory Statistics for Social Research

Visual Art

VISA 0100. Studio Foundation.
An introduction to basic visual art concepts, exploring a range of materials with emphasis on experimentation and analysis of visual relationships. Drawing is a vital part of this course. Admittance to this course will be determined by an online lottery, which can be accessed through the VISA 0100 Lottery link in the Student menu in Banner Web. VISA 0100 or 0110 is a prerequisite to any advanced studio course work at Brown or the Rhode Island School of Design. Under certain circumstances a student may petition for a waiver of this requirement upon submission of a portfolio.

<table>
<thead>
<tr>
<th>Term</th>
<th>Section</th>
<th>Credits</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>VISA0100 S01 15562 MW 10:00-11:50(03) (M. Smick)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0100 S02 15563 TTh 10:00-11:50(15) (E. Villanueva)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0100 S03 15564 MW 1:00-2:50(15) (E. Donsky)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0100 S04 15565 TTh 1:00-2:50(15) (K. Lamb)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0100 S05 15566 MW 4:00-5:50(15) (E. Donsky)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0100 S06 15567 TTh 4:00-5:50(15) (E. Villanueva)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0100 S07 15568 TTh 4:00-5:50(15) (E. Irons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S01 24814 MW 10:00-11:50(18) 'To Be Arranged'</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S02 24815 MW 1:00-2:50(18) (E. Donsky)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S03 24816 MW 4:00-5:50(13) (E. Donsky)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S04 24817 TTh 10:00-11:50(18) (E. Villanueva)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S05 24818 TTh 1:00-2:50(18) (M. Smick)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S06 24819 TTh 10:00-11:50(18) (L. Tarentino)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S07 24820 TTh 1:00-2:50(18) (H. Doyle)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0100 S08 24821 TTh 4:00-5:50(18) (H. Doyle)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VISA 0110. Advanced Studio Foundation.
Some students arrive at Brown with a greater understanding of visual art principles than most, yet need an introduction to other aspects before taking more advanced courses. Figure drawing is practiced throughout the semester, utilizing a variety of media. Weekly outside assignments explore diverse themes and become the subject of comprehensive class discussions. Serves as a prerequisite to upper-level courses, as does VISA0100.

Admittance to this course will be determined by a portfolio review. Students must submit their portfolio, one week prior to the start of classes, to the Visual Art department office in List, room 222; digital images submitted on a CD are preferred. Students will be notified of acceptance into the class by the end of the first week of classes.

<table>
<thead>
<tr>
<th>Term</th>
<th>Section</th>
<th>Credits</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>VISA0110 S01 15570 MW 10:00-11:50(03) (P. Myoda)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VISA 0120. Foundation Media: Sound and Image.
This foundation studio course focuses on the production and theory of screen-based digital media artwork and introduces the computer as a medium and a tool for art. The principles and techniques web design, and sound and image production are addressed in readings, screenings, and a number of specific projects. During pre-registration, the course is open to Visual Arts concentrators; all others may enroll with instructor permission. After pre-registration ends, registration for all students is by instructor permission only. Enrollment limited to 12.

<table>
<thead>
<tr>
<th>Term</th>
<th>Section</th>
<th>Credits</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>VISA0120 S01 15571 TTh 10:00-11:50(09) (E. Osborn)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall</td>
<td>VISA0120 S02 16562 TTh 1:00-2:50(09) (E. Irons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spr</td>
<td>VISA0120 S01 24827 MW 10:00-11:50(13) (E. Osborn)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VISA 0130. 3-D Foundation.
This is an extensive study in form and structure to develop spatial understanding and the fundamentals of 3-dimensional design and construction. Students will explore the structural, compositional and conceptual implications of basic materials, such as wood, metal, plaster and found objects. Projects are designed as a means for investigating a variety of sculptural processes. Students will learn casting techniques, safe usage of power tools and welding equipment. In addition special emphasis will be placed on creativity, critical thinking and the ability to successfully articulate ideas visually.

<table>
<thead>
<tr>
<th>Term</th>
<th>Section</th>
<th>Credits</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spr</td>
<td>VISA0130 S01 25907 TTh 1:00-2:50(10) (E. Villanueva)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VISA 1110. Drawing I.
Drawing from nature, still life, the model, and the imagination in a variety of media. A continuing series of outside assignments emphasized. Visits to galleries and museums and pertinent exhibitions may be undertaken. The portfolio of the individual student will be the basis of evaluation. Great emphasis is put on classroom participation. Pre-requisite: VISA 0100 or 0110.

This course restricted to 20 students. 18 seats will be available during pre-registration. Students who are not admitted during pre-registration should attend the first meeting.

<table>
<thead>
<tr>
<th>Term</th>
<th>Section</th>
<th>Credits</th>
<th>Days</th>
<th>Time</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>VISA1110 S01 15572 TTh 1:00-3:50(10) (L. Bostrom)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
VISA 1120. Drawing II.
Drawing from the imagination, the model, and landscapes in a variety of media. Great emphasis is placed on creative work and on classroom participation. Prerequisite: VISA 0100 or 0110. This course restricted to 20 students. 18 seats will be available during pre-registration. This class will satisfy VA concentration requirement for drawing. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.
Fall VISA1120 S01 15664 MW 1:00-4:50(06) (H. Doyle)
Spr VISA1120 S01 24829 MW 1:00-4:50(06) "To Be Arranged"

The aim of the course is to understand the variability, sequencing potential and the inherent luminosity of the monotype medium and to use these attributes to discover and advance one’s own visual ideas. Monotype refers to the making of a single unique print through press and non-press means. Several rapid projects with themes will precede a longer series culminating in a final epic portfolio of independent content. Individual, peer, and small and large group critiques will occur weekly for feedback. Readings and visits to the Bell Gallery and the RISD Museum of Art collections will give both a historical context and a singular appreciation to the studio.
Fall VISA1210J S01 15573 MW 9:00-11:50(16) (L. Tarentino)

VISA 1210L. Political Constructions.
Arranged as a collective, the class will make art using various media, such as digital printing, silkscreen, woodcut, collagraph, Xerox, on-line blogs and wikis to create and distribute activist political images related to one or more topics (class choice).
Included in the class will be collaboration with departments on campus such as Environmental Studies, Biology, or Africana Studies, driven by the political topics the class wants to investigate, promote, and publicize. The class will research the history and theory of political art and its contribution and power in political movements of the recent past.
Spr VISA1210L S01 26066 TTh 1:00-4:50 (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. Prerequisite: VISA 0100 or 0110 or permission of instructor. This course restricted to 15 VISA Concentrators, and others by permission of the instructor. 10 seats available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.
Fall VISA1240 S01 15581 MW 1:00-4:50(06) (L. Henderson)

VISA 1250. Art of the Book.
Will examine the artist’s book from the printer/publisher perspective. Students will learn the basics of book design, traditional typography and the letterpress printing, as they consider the book and its related printed matter in the service of content. The course will be run as a fine press publishing house in which students will produce individual and group projects, including bookplates, broadsides, and books. Studio work will be augmented with field trips, artist visits, and guided exploration of the special collections at the John Hay Library. Prerequisite: VISA 0100 or 0110, and VISA 1240. This course restricted to 15 students. 5 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting.
Spr VISA1250 S01 24831 MW 1:00-4:50(06) (L. Henderson)

VISA 1310. Painting I.
Painting for a variety of interests and aptitudes - basic instruction in media and painting procedure, emphasis on development of the image as a visual statement. Will build stretcher, cover basic color principles, and painting techniques. Slides, related books, articles are discussed. Individual criticism is given; participation in group discussions is required. Pre-req: VISA 0100 or 0110. Restricted to 18 VISA Concentrators, others by permission of the instructor. Students not admitted during pre-registration should attend the first class. Not all restrictions apply to students registering for the Summer term through the Office of Continuing Education.
Fall VISA1310 S01 15574 MW 1:00-3:50(06) (L. Tarentino)

VISA 1320. Painting II.
The advanced class covers information beyond the introductory level. Individual criticism is emphasized. Students are required to complete all structured assignments and to participate in regularly scheduled discussions. Prerequisite: VISA 0100 or VISA 0110, and VISA 1310. This course will be restricted to 18 VISA Concentrators and others by permission of the instructor. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register are advised to attend the first meeting of the class.
Fall VISA1320 S01 15575 TTh 9:00-11:50(08) (L. Bostrom)

VISA 1410. Sculpture: Material Investigations.
This studio course addresses basic sculptural methods, i.e., additive and subtractive modeling, casting, and assemblage, and common sculptural materials, i.e., wood, metal, plaster, and found objects. Demonstrations and workshops on a number of sculptural tools and materials form the foundation for this studio. Students develop sculptural solutions to a given set of problems. Contemporary issues raised in critiques and readings. Ephemeral and outside work is expected. Students are invited to take this course more than once, as the problems can be customized for those with more experience. Pre-requisite: VISA 0100 or VISA 0130. 10 seats will be available during pre-registration. Students who are not admitted during pre-registration or were unable to pre-register should attend the first meeting of the class.
Fall VISA1410 S01 15577 MW 1:00-4:50(06) (P. Myoda)

VISA 1510. Black and White Photography.
Introductory course in bw photography, emphasizing core photographic concepts, possibilities, history, genres, technical information, and techniques. A variety of lens-less and lens based exercises will be introduced blurring the boundaries between the "traditional" sense of photography and other studio based media such as drawing or painting. Large and medium format cameras will be introduced, students may check out 35 mm film camera from the Dept. Prerequisite: VISA 0100 or 0110.
Fall VISA1510 S01 15579 MW 1:00-3:50(06) (T. Ganz)
Spr VISA1510 S01 24832 MW 1:00-3:50(06) (T. Ganz)

VISA 1520. Digital Photography.
A thematic photography course oriented around landscape photography and related art forms. Readings and slide presentations will explore important concepts in the history of landscape photography including the sublime, the picturesque, the document, ideas of place and displacement, war and environmentalism. Class will be discussion, slideshow, studio and critique. Several field trips and exploration of historical photographic methods including cyanotype, pinhole and large format photography. Prior experience in photography preferred not required. A digital SLR type camera may be checked out from the Department. Prerequisite: VISA 0100, VISA 0110.
Fall VISA1520 S01 15580 MW 9:00-11:50(16) (T. Ganz)
Spr VISA1520 S01 24833 MW 9:00-11:50(02) (T. Ganz)

VISA 1800A. Accessorizing Painting: The Exalted Surface.
This studio course will examine the crossover between decorative arts and painting. Drawing upon sources such as fashion, textiles, adornsments, jewelry, furniture, hair and architecture we will study how design aesthetics demonstrate class, position, lineage or a particular period in the history of painting and embellishment. Students will be encouraged to experiment with a wide variety of media and work on projects based on their selected researched subject areas. Enrollment limited to 14 Visual Art Concentrators. Prerequisite: VISA 1310.
Spr VISA1800A S01 25720 MW 1:00-4:50(10) (W. Edwards)

VISA 1800C. Honors Seminar.
Required for students who have been accepted as candidates for honors. The seminar meets weekly to discuss readings and for group critiques. Includes group trips to New York and Boston, to visit galleries, museums, and artists’ studios. Instructor permission required. WRIT
Fall VISA1800C S01 15576 MW 1:00-3:50(06) (W. Edwards)
VISA 1800G. Junior/Senior Seminar in Visual Art.
In this seminar we will seek to identify and analyze various visual-rhetorical operations evident within contemporary art practice. Students will be introduced to a number of terms and operations within linguistic rhetorics, and then examine how they can be mapped to correlates within the field of visual art. Students will be required to read various articles in preparation for each class, followed by open discussions. Students will be selected to lead discussions. There will be short writing assignments, and as a final qualifying project, students will create a series of artworks (in the medium of their choice). Jr/Sr VA Concentrators.
Spr VISA1800G S01 25808 TTh 10:00-11:50(04) (P. Myoda)

VISA 1800J. Exploration in Video Art.
This studio course provides an overview of contemporary video art and video installation practices, facilitates the development of video work in expanded space, and encourages a critical approach to interactive moving image practice. Students will develop a set of video installation pieces by working individually and in groups. The pieces will be developed for particular spaces and situations beyond the standard single-screen video format. Students will learn basic video production and post-production skills using Final Cut Pro, DVD Studio Pro, Jitter, and other tools as needed. The production work will be complemented by technical lectures and demos, readings and discussions, short assignments, and screenings. Prerequisite: VISA 0120. Instructor permission required. Enrollment limited to 20.
Fall VISA1800J S01 16427 TTh 1:00-4:50(10) (E. Osborn)

VISA 1800M. Sound and Art.
This course will explore sound art as a multidimensional medium situated between physical, psychological and cultural spaces. Students will gain an introduction to the practical, technical and historical aspects of sound art through studio work and will learn about and apply concept development and installation strategies.
Spr VISA1800M S01 24834 MW 1:00-4:50(16) (E. Osborn)

Visual artists don’t have agents or managers— you have to do it all yourself. This class covers business basics including tracking inventory and preparing invoices; taking legal precautions like registering a copyright and drafting consignment forms; using promotional tools; and making decisions such as choosing the right venue for your work. Grants, residencies, and relationships with galleries & nonprofit institutions will be discussed in depth. Work will emphasize community the practical, skills to thrive as a visual artist. Enrollment limited to 20 juniors and seniors in Visual Art. WRIT
Spr VISA1800P S01 24835 F 1:00-4:50(16) 'To Be Arranged'

Four practicing artists will provide feedback and instruction on students’ studio work. There will be weekly critiques of students progress, and each student is free to choose the medium and subject matter of their investigation. Reading and writing assignments will differ among the artists. Ultimately each student will see all four artists in one month - a different artist every week. Each artist has their own practice and offers a different perspective. The emphasis of the course is on critique and the critical dialogue between a larger group and the student. Preference will be given to junior and senior VA concentrators. Pre Requisites: VISA 0100 and at least two additional studio courses.
Fall VISA1800X S01 16691 T 6:00-9:50PM(05) (W. Edwards)

Work on an approved project leading to the presentation of a portfolio, under supervision of an individual member of the staff. Project proposals must be filed with the department no later than the first week of the semester. Section numbers vary by instructor.

Section numbers vary by instructor.

VISA 2450. Exchange Scholar Program.

VISA XLIST. Courses of Interest to Visual Arts Concentrators.
Africana Studies

The concentration in Africana Studies critically examines the artistic, historical, literary, and theoretical expressions of the peoples and cultures of Africa and the African Diaspora. Central to the work of students and faculty in the concentration is the close collaboration of artists, scholars, and writers in examining relationships between academic and artistic knowledge about the world and human experience. Concentrators work closely with faculty members in developing new knowledge about the world and human existence through the critical and comprehensive study of the peoples and cultures of Africa and the African Diaspora. Concentrators are encouraged to study abroad in Africa, the Caribbean, and/or Latin America and to acquire language competency in a language other than English spoken in Africa and the diaspora.

In order to develop requisite competency, Africana Studies concentrators must complete eight (8) semester-long courses offered by or cross-listed with the Department. Concentrators may also petition the Department to accept other appropriate courses.

Of these courses, the following two Africana Studies courses are required:
- AFRI 0090 An Introduction to Africana Studies (Fall ONLY)
- AFRI 1360 Africana Studies: Knowledge, Texts and Methodology–Senior Capstone Seminar (Spring ONLY)

The Department strongly encourages foreign study in Africa, the Caribbean, and Latin America, during the student's junior year. While the department actively supports programs in South Africa, Tanzania, Ethiopia, Brazil, and the English-Speaking Caribbean, concentrators must complete at least six (6) courses in residence at Brown.
The Department also encourages the acquisition of language competencies, in addition to English, which are spoken in Africa and the Diaspora. Since no continental African language is currently offered at Brown, concentrators who study abroad and acquire certified competency in any African language are welcome to petition the department for competency credit.

Honors

Africana Studies' concentrators with outstanding records may be admitted to the department’s Honors Program. Prior to the end of the concentrator’s junior year and while working in consultation with a faculty advisor, the student must prepare a work plan. This plan, not to exceed three (3) typewritten pages, must be approved and signed by the faculty advisor who is to direct the Honor’s thesis. At the onset of the senior year, the Honor’s candidate is expected to have become familiar with the secondary works in the field. Secondary readings should be extensive and be incorporated into the work plan. The Honor’s candidate is also expected to complete a research paper of distinguished quality while enrolled in a 1000-level seminar. Participation in the Africana Studies senior-level capstone seminar (AFRI 1360) is required.

For students completing graduation requirements by the end of Semester I (Fall), projects must be submitted by December 1st. For students completing graduation requirements by Semester II (Spring), the project should be submitted by April 20th. By the end of the fourth (4th) week of the concentrator’s seventh (7th) semester, a written proposal approved by the advisor and a secondary reader must be submitted to the concentration advisor. A progress report, prepared and signed by the student and countersigned by the faculty advisor must be presented to the concentration advisor.

American Studies

The concentration in American Studies seeks to understand American society and cultures as emerging from historical and contemporary processes at work in local, national, and global contexts. Concentrators study four broad themes: social structure and the practices of identity, space and place, production and consumption of culture, and science, technology, and everyday life. The concentration is predicated on the ideal of scholarly engagement with the public; so students take junior seminars that engage some aspect of the public humanities such as public policy, memorialization, community studies or civic engagement. Study abroad is supported and encouraged.

A concentrator in American Studies will be able to:
- Analyze texts, contexts, and data from multiple disciplinary and historical perspectives
- Synthesize research as verbal, visual and/or digital presentations
- Explore the theories and practice of the engagement of scholarship with a broader public
- Understand how American society and cultures have been and are being shaped by global flows of people, goods and ideas
- Experiment with new media as critical tools for scholarship

Concentrators have gone on to a vast variety of careers, including law, public humanities, politics, public service, academics, business, creative arts, and medicine.

Each concentrator will take 10 courses including a Junior Seminar as one of four seminars. Courses are organized by the four themes and four approaches that define America Studies at Brown. Each concentrator will use this framework to create an individual focus in consultation with the Concentration Advisor.

The focus is the flexible core of the concentration. Here each student builds a coherent and dynamic interdisciplinary structure of related courses that develops his or her compelling interest in some aspect of American experience. The four themes and four approaches provide the foundation on which each student builds a unique concentration in American Studies.

All seniors in the class of 2013 forward will be required to do a capstone electronic portfolio. Some concentrators may elect to do an Honors Thesis. Study abroad is supported and encouraged.

Four Themes and Four Approaches

American Studies at Brown is concerned with four broad themes:

- **Social Structures and the Practices of Identity:** How do communities and individuals come to define themselves, and how do others define them, in terms of, among other categories, nation, region, class, race, ethnicity, gender, sex, religion, age and sexuality? How do organizations and institutions function socially and culturally? What are the roles of social movements, economic structures, politics and government?
- **Space and Place:** How is space organized, and how do people make place? This includes the study of natural and built environments; local, regional, national and transnational communities; and international and inter-regional flows of people, goods, and ideas.
- **Production and Consumption of Culture:** How do people represent their experiences and ideas as culture? How is culture transmitted, appropriated and consumed? What is the role of artists and the expressive arts, including literature, visual arts and performance?
- **Science, Technology, and Everyday Life:** How does work and the deployment of science and technology shape American culture? How do everyday social practices of work, leisure and consumption provide agency for people?

How we study

American Studies at Brown emphasizes four intersecting approaches that are critical tools for understanding these themes:

- **Cultural and Social Analysis:** Reading and analyzing different kinds of texts, including literary, visual, aural, oral, material objects and landscapes. Examining ethnic and racial groups, institutions, organizations and social movements.
- **Global/International Contextualization:** Comprehending the United States as a society and culture that has been shaped by the historical and contemporary flows of people, goods and ideas from around the world and in turn, learning about the various ways in which America has shaped the world.
- **New Media Understandings:** Understanding the creation of new forms of discourse, new ways of knowing and new modes of social organization made possible by succeeding media revolutions. Using new media as a critical tool for scholarship.
• Publicly Engaged Scholarship: Connecting the theory and the practice of publicly-engaged research, understanding and presentation, from community-based scholarship to ethnography, oral history, and museum exhibits. Civic engagement might include structured and reflective participation in a local community or communities or the application of general theoretical knowledge to understanding social issues.

**Anthropology**

Anthropology is the study of human beings from all times and all places, offering holistic, comparative, international, and humanistic perspective. In studying and interpreting the vast range of similarities and differences in human societies and cultures, anthropologists also seek to understand how people themselves make sense of the world in which they live. The Department of Anthropology at Brown is a vibrant, award-winning group of scholars working primarily in the subfields of cultural anthropology, archaeology, and anthropological linguistics. The concentration provides students with a broad introduction to the discipline and includes the major subdisciplines of the field: sociocultural anthropology, archaeology, anthropological linguistics, and biological anthropology.

Concentrators should select their courses in anthropology in consultation with the concentration advisor. At least nine courses in anthropology are required	extsuperscript{1}, including:

Select one of the following sociocultural/linguistic anthropology classes: 1
- ANTH 0100 Introduction to Cultural Anthropology
- ANTH 0200 Culture and Human Behavior
- ANTH 0300 Culture and Health
- ANTH 0800 Sound and Symbols: Introduction to Linguistic Anthropology

Select one of the following biological anthropology/archaeology classes: 1
- ANTH 0310 Human Evolution
- ANTH 0500 Past Forward: Discovering Anthropological Archaeology

Select one of the following, normally taken in junior or sophomore year: 1
- ANTH 1900 History of Anthropology: Anthropological Theories
- ANTH 1940 Ethnographic Research Methods
- ANTH 1950 Archaeological Field Work
- ANTH 1621 Material Culture Practicum

A course from the ANTH 1910 Series (Normally taken in senior year) 1

Five additional Anthropology courses. 5

Total Credits 9

1 Of the required courses, at least five courses counted toward the concentration must be offered at the 1000-level or above and one course must be on a particular world area.

**Honors**

Candidates for honors should apply to the concentration advisor by the end of his or her 6th semester, but no later than the 4th week of the 7th semester. An application consists of a brief statement addressing the focus of a proposed thesis and the names and signatures of two faculty members from the Department of Anthropology who have agreed to serve as the student’s honors committee—one as honors thesis advisor, the other as a reader. Candidates for honors are required to:

1. Fulfill the standard concentration requirements.
2. Take two additional courses, usually, which may be used for thesis preparation.
3. Have a majority of A’s in the concentration.
4. Submit an approved honors thesis.

**Field Work**

Concentrators interested in archaeology are urged to obtain training in field archaeology by participating in Brown-sponsored field research, or by participating in an archaeological field school elsewhere.

**Applied Mathematics**

The concentration in Applied Mathematics allows students to investigate the mathematics of problems arising in the physical, life and social sciences as well as in engineering. The basic mathematical skills of Applied Mathematics come from a variety of sources, which depend on the problems of interest: the theory of ordinary and partial differential equations, matrix theory, statistical sciences, probability and decision theory, risk and insurance analysis, among others. Applied Mathematics appeals to people with a variety of different interests, ranging from those with a desire to obtain a good quantitative background for use in some future career, to those who are interested in the basic techniques and approaches in themselves. The standard Applied Mathematics concentration leads to either the A.B. or Sc.B. degree. Students may also choose to pursue a joint program with biology, computer science or economics. The undergraduate concentration guide is available here (http://www.dam.brown.edu/undergraduate/documents/UndergraduateGuide.pdf).

Both the A.B. and Sc.B. concentrations in Applied Mathematics require certain basic courses to be taken, but beyond this there is a great deal of flexibility as to which areas of application are pursued. Students are encouraged to take courses in applied mathematics, mathematics and one or more of the application areas in the natural sciences, social sciences or engineering. Whichever areas are chosen should be studied in some depth.

**Standard program for the A.B. degree.**

**Prerequisites**

| MATH 0090 | Introductory Calculus, Part I & MATH 0100 and Introductory Calculus, Part II |
| Or their equivalent |

**Program**

Ten additional semester courses approved by the Division of Applied Mathematics. These classes must include:

1. MATH 0180 Intermediate Calculus 1
2. MATH 0520 Linear Algebra 2
3. APMA 0350 Methods of Applied Mathematics I, II 2
4. APMA 0360 Methods of Applied Mathematics I, II 3

Select one course on programming from the following: 4

1. APMA 0900 Introduction to Mathematical Modeling |
2. APMA 0160 Introduction to Scientific Computing |
3. CSCI 0040 Introduction to Scientific Computing and Problem Solving |
4. CSCI 1500 Introduction to Object-Oriented Programming and Computer Science |
5. CSCI 0170 Computer Science: An Integrated Introduction |

Five additional courses, of which four should be chosen from the 1000-level courses taught by the Division of Applied Mathematics. 5

Total Credits 10

1 Substitution of alternate courses for the specific requirements is subject to approval by the division.
2 Concentrators are urged to consider MATH 0540 as an alternative to MATH 0520.
3 APMA 0330, APMA 0340 will sometimes be accepted as substitutes for APMA 0350, APMA 0360.
4 Concentrators are urged to complete their introductory programming course before the end of their sophomore year.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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
- & MATH 0100 and Introductory Calculus, Part II
- MATH 0180 Intermediate Calculus
- MATH 0520 Linear Algebra
- APMA 0350 Methods of Applied Mathematics I, II
- & APMA 0360 and Methods of Applied Mathematics I, II

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
- APMA 0160 Introduction to Scientific Computing
- CSCI 0040 Introduction to Scientific Computing and Problem Solving
- CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
- CSCI 0170 Computer Science: An Integrated Introduction

Ten additional courses, of which six should be chosen from the 1000-level or higher level courses taught by the Division of Applied Mathematics.

Total Credits
1. Substitution of alternate courses for the specific requirements is subject to approval by the division.
2. Concentrators are urged to consider MATH 0540 as an alternative to MATH 0520.
3. APMA 0330, APMA 0340 will sometimes be accepted as substitutes for APMA 0350, APMA 0360.
4. Concentrators are urged to complete their introductory programming course before the end of their sophomore year.

Applied Mathematics-Biology

The Applied Math - Biology concentration recognizes that mathematics is essential to address many modern biological problems in the post genomic era. Specifically, high throughput technologies have rendered vast new biological data sets that require novel analytical skills for the most basic analyses. These technologies are spawning a new "data-driven" paradigm in the biological sciences and the fields of bioinformatics and systems biology. The foundations of these new fields are inherently mathematical, with a focus on probability, statistical inference, and systems dynamics. These mathematical methods apply very broadly in many biological fields including some like population growth, spread of disease, that predate the genomics revolution. Nevertheless, the application of these methods in areas of biology from molecular genetics to evolutionary biology has grown very rapidly in with the availability of vast amounts of genomic sequence data. Required coursework in this program aims at ensuring expertise in mathematical and statistical sciences, and their application in biology. The students will focus in particular areas of biology. The program culminates in a senior capstone experience that pairs student and faculty in creative research collaborations.

Standard program for the Sc.B. degree

Required coursework in this program aims at ensuring expertise in mathematical and statistical sciences, and their application in biology. The students will focus in particular areas of biology. The program culminates in a senior capstone experience that pairs student and faculty in creative research collaborations. Applied Math – Biology concentrators are prepared for careers in medicine, public health, industry and academic research.

Required Courses:

Students are required to take all of the following courses.

Select one of the following sequences:

- APMA 0350 & APMA 0360 Methods of Applied Mathematics I, II
- APMA 0330 & APMA 0340 Methods of Applied Mathematics I, II

APMA 1650 Statistical Inference I

One (1) additional APMA approved 1000-level course.

MATH 0090 Introductory Calculus, Part I (or equivalent placement)

MATH 0100 Introductory Calculus, Part II (or equivalent placement)

or MATH 0170 Advanced Placement Calculus

MATH 0180 Intermediate Calculus

MATH 0520 Linear Algebra (or an approved applied math course)

CHEM 0330 Equilibrium, Rate, and Structure

PHYS 0030 Basic Physics

or PHYS 0050 Foundations of Mechanics

PHYS 0040 Basic Physics

or PHYS 0060 Foundations of Electromagnetism and Modern Physics

Additional Courses

In addition to required courses listed above, students must take the following:

Two additional courses in applied math, biology, chemistry, math, or physics. At least one of these must be a directed research course that reflects the theme of this program, for example:

- APMA 1970 Independent Study
- BIOL 1950 Directed Research/Independent Study
- or BIOL 1960 Directed Research/Independent Study

Four biology courses agreed upon by the student and advisor, for example:

Areas of Emphasis and Suggested Courses:

A breadth of courses in multiple areas is suggested. For students with particular interests, the following areas of emphasis can be considered.

**Biochemistry**

- BIOL 0280 Introductory Biochemistry
- CHEM 0350/0360 Organic Chemistry

**Chemistry**

- CHEM 1230 Chemical Biology
- CHEM 1240 Biochemistry

**Cells, Tissues, and Organs**

- BIOL 0800 Principles of Physiology
- BIOL 1100 Cell Physiology and Biophysics
- BIOL 1190 Synaptic Transmission and Plasticity
- and/or appropriate bioengineering courses, such as:
  - BIOL 1090 Polymer Science for Biomaterials
  - BIOL 1120 Biomaterials
  - BIOL 1140 Tissue Engineering
  - BIOL 1150 Stem Cell Engineering

**Neurosciences**

- Any Neurosciences courses (NEUR)
- APMA 0410 Mathematical Methods in the Brain Sciences

**Population Biology and Ecology**

- BIOL 0410 Invertebrate Zoology
- BIOL 0420 Principles of Ecology
- BIOL 0430 The Evolution of Plant Diversity
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 Introductory Calculus, Part I
- MATH 0100 Introductory Calculus, Part II
- MATH 0170 Advanced Placement Calculus

**Concentration Requirements (17 courses)**

**Core-Math:**
- MATH 0180 Intermediate Calculus
- or MATH 0350 Honors Calculus
- MATH 0520 Linear Algebra
- or MATH 0540 Honors Linear Algebra
- or CSCI 0530 Directions: The Matrix in Computer Science

**Core-Applied Mathematics:**
- APMA 0350 Methods of Applied Mathematics I, II
- or APMA 0360 Methods of Applied Mathematics I, II
- APMA 1170 Introduction to Computational Linear Algebra
- or APMA 1180 Introduction to Numerical Solution of Differential Equations

**Core-Computer Science:**
Select one of the following Series:

**Series A**
- CSCI 0150 & 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 CS course, or a 1000-level course)

Select three of the following intermediate-level courses, one of which must be math-oriented and one systems-oriented:
- CSCI 0220 Introduction to Discrete Structures and Probability (math)
- CSCI 0320 Introduction to Software Engineering (systems)
- CSCI 0310 Introduction to Computer Systems (systems)
- or CSCI 0330 Introduction to Computer Systems
- CSCI 0510 Models of Computation (math)

Three 1000-level Computer Science courses. These three courses must include a pair of courses with a coherent theme. A list of approved pairs may be found at the approved-pairs web page. You are not restricted to the pairs on this list, but any pair not on the list must be approved by the director of undergraduate studies.

Total Credits: 17

Requirements for the Professional Track of the Sc.B. degree.

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

- Which courses were put to use in your summer’s work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Applied Mathematics-Economics

The Applied Mathematics-Economics concentration is designed to reflect the mathematical and statistical nature of modern economic theory and empirical research. This concentration has two tracks. The first is the
advanced economics track, which is intended to prepare students for graduate study in economics. The second is the mathematical finance track, which is intended to prepare students for graduate study in finance, or for careers in finance or financial engineering. Both tracks 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) - through the class of 2015:**

**Prerequisites:**
- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra

**Course Requirements:**
- **Applied Math Requirements**
  - (a) 
    - APMA 0350 and APMA 0360 Methods of Applied Mathematics I, II 2
  - Select one of the following:
    - APMA 0160 Introduction to Scientific Computing
    - CSCI 0040 Introduction to Computer Programming
    - CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
    - CSCI 0170 Computer Science: An Integrated Introduction

- (b) 
  - Select one of the following:
    - APMA 1200 Operations Research: Probabilistic Models
    - APMA 1210 Operations Research: Deterministic Models
    - APMA 1650 Statistical Inference I

**Economics Requirements:**
- ECON 1130 Intermediate Microeconomics (Mathematical) 3
- ECON 1210 Intermediate Macroeconomics
- ECON 1630 Econometrics I
- Two 1000-level courses from the "mathematical-economics" group, below:
  - ECON 1170 Welfare Economics and Social Choice Theory
  - ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
  - ECON 1465 Market Design: Theory and Applications
  - ECON 1470 Bargaining Theory and Applications
  - ECON 1640 Econometrics II
  - ECON 1650 Financial Econometrics
  - ECON 1750 Investments II
  - ECON 1759 Data, Statistics, Finance
  - ECON 1810 Economics and Psychology
  - ECON 1820 Behavioral Economics
  - ECON 1850 Theory of Economic Growth
  - ECON 1860 The Theory of General Equilibrium

**Standard program for the Sc.B. degree (Advanced Economics track) - through the class of 2015:**

**Prerequisites:**
- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra

**Course requirements:**
- **Applied Mathematics requirements:**
  - (a) 
    - APMA 0350 and APMA 0360 Methods of Applied Mathematics I, II 2
  - Select one of the following:
    - APMA 0160 Introduction to Scientific Computing
    - CSCI 0040 Introduction to Computer Programming
    - CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
    - CSCI 0170 Computer Science: An Integrated Introduction

- (b) 
  - Select two of the following:
    - APMA 1200 Operations Research: Probabilistic Models
    - APMA 1210 Operations Research: Deterministic Models
    - APMA 1660 Statistical Inference II
    - APMA 1670 Statistical Analysis of Time Series
    - APMA 1680 Nonparametric Statistics
    - APMA 1690 Computational Probability and Statistics
    - APMA 1700 The Mathematics of Insurance
    - 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
- ECON 1630 Econometrics I
- Three 1000-level courses from the "mathematical-economics" group, below:
  - ECON 1170 Welfare Economics and Social Choice Theory
  - ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
  - ECON 1465 Market Design: Theory and Applications
  - ECON 1470 Bargaining Theory and Applications
  - ECON 1640 Econometrics II
  - ECON 1650 Financial Econometrics
  - ECON 1750 Investments II
  - ECON 1759 Data, Statistics, Finance
  - ECON 1810 Economics and Psychology
  - ECON 1820 Behavioral Economics

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics
Two additional 1000-level economics courses. 2
Total Credits 15

1 No course may be used to simultaneously satisfy (a) and (b).
2 APMA 0330 and APMA 0340 may be substituted with advisor approval.
3 Or ECON 1110 with permission.

Standard program for the A.B. degree (Mathematical Finance track) - through the class of 2015:

Prerequisites:
MATH 0100 Introductory Calculus, Part II
MATH 0520 Linear Algebra

Requirements:
Applied Mathematics requirements:
(a)
APMA 0350 & APMA 0360 Methods of Applied Mathematics I, II 2
Select one of the following: 1
APMA 0160 Introduction to Scientific Computing
CSCI 0040 Introduction to Scientific Computing and Problem Solving
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
CSCI 0170 Computer Science: An Integrated Introduction
APMA 1200 Operations Research: Probabilistic Models 1
APMA 1650 Statistical Inference I 1
(b)
Select one of the following: 1
APMA 1180 Introduction to Numerical Solution of Differential Equations
APMA 1330 Methods of Applied Mathematics III, IV
APMA 1660 Statistical Inference II
APMA 1670 Statistical Analysis of Time Series
APMA 1680 Nonparametric Statistics
APMA 1690 Computational Probability and Statistics
APMA 1700 The Mathematics of Insurance
APMA 1720 Monte Carlo Simulation with Applications to Finance (most preferred in this list)
APMA 1740 Recent Applications of Probability and Statistics
MATH 1010 Analysis: Functions of One Variable

Economics Requirements:
ECON 1130 Intermediate Microeconomics (Mathematical) 2 1
ECON 1210 Intermediate Macroeconomics 1
ECON 1630 Econometrics I 1
Select two 1000-level courses from the “financial economics” group: 3 2
ECON 1650 Financial Econometrics
ECON 1710 Investments I
ECON 1720 Corporate Finance
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1760 Financial Institutions
ECON 1765 Finance, Regulation, and the Economy: Research
ECON 1770 Fixed Income Securities
ECON 1780 Corporate Strategy
ECON 1790 Corporate Governance and Management
Select one 1000-level course from the "mathematical economics" group: 3
ECON 1170 Welfare Economics and Social Choice Theory
ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
ECON 1465 Market Design: Theory and Applications
ECON 1470 Bargaining Theory and Applications
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1820 Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics
Total Credits 12
1 APMA 0330 and APMA 0340 may be substituted with advisor approval
2 Or ECON 1110 with permission.
3 No course may be used to simultaneously satisfy the "financial economics" and the "mathematical economics" requirements.

Standard program for the Sc.B. degree (Mathematical Finance track) - through the class of 2015:

Prerequisites:
MATH 0100 Introductory Calculus, Part II
MATH 0520 Linear Algebra

Course requirements:
Applied Mathematics requirements:
(a)
APMA 0350 & APMA 0360 Methods of Applied Mathematics I, II 2
Select one of the following: 1
APMA 0160 Introduction to Scientific Computing
CSCI 0040 Introduction to Scientific Computing and Problem Solving
CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
CSCI 0170 Computer Science: An Integrated Introduction
APMA 1200 Operations Research: Probabilistic Models 1
APMA 1650 Statistical Inference I 1
(b)
Select two of the following: 2
APMA 1180 Introduction to Numerical Solution of Differential Equations
APMA 1330 Methods of Applied Mathematics III, IV
APMA 1660 Statistical Inference II
APMA 1670 Statistical Analysis of Time Series
APMA 1680 Nonparametric Statistics
APMA 1690 Computational Probability and Statistics
APMA 1700 The Mathematics of Insurance
APMA 1720 Monte Carlo Simulation with Applications to Finance (most preferred in this list)
APMA 1740 Recent Applications of Probability and Statistics
MATH 1010 Analysis: Functions of One Variable

Economics requirements:
ECON 1130  Intermediate Microeconomics (Mathematical) 1
ECON 1210  Intermediate Macroeconomics 1
ECON 1630  Econometrics I 1
Select three 1000-level courses from the "financial economics" group: 3
  ECON 1650  Financial Econometrics
  ECON 1710  Investments I
  ECON 1720  Corporate Finance
  ECON 1750  Investments II
  ECON 1759  Data, Statistics, Finance
  ECON 1760  Financial Institutions
  ECON 1765  Finance, Regulation, and the Economy: Research
  ECON 1770  Fixed Income Securities
  ECON 1780  Corporate Strategy
  ECON 1790  Corporate Governance and Management
Select two 1000-level courses from the "mathematical economics" group: 2
  ECON 1170  Welfare Economics and Social Choice Theory
  ECON 1225  Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
  ECON 1465  Market Design: Theory and Applications
  ECON 1470  Bargaining Theory and Applications
  ECON 1640  Econometrics II
  ECON 1650  Financial Econometrics
  ECON 1750  Investments II
  ECON 1759  Data, Statistics, Finance
  ECON 1810  Economics and Psychology
  ECON 1820  Behavioral Economics
  ECON 1850  Theory of Economic Growth
  ECON 1860  The Theory of General Equilibrium
  ECON 1870  Game Theory and Applications to Economics

Total Credits 15

1  APMA 0330 and APMA 0340 may be substituted with advisor approval.
2  Or ECON 1110 with permission.
3  No course my be used to simultaneously satisfy the "financial economics" and the "mathematical economics" requirements.

Standard Program for the A.B. degree (Advanced Economics track) - class of 2016 and beyond:

Prerequisites:
  MATH 0100  Introductory Calculus, Part II
  MATH 0520  Linear Algebra

Course Requirements:

Applied Mathematics Requirements
  (a) 1
  APMA 0350 & APMA 0360  Methods of Applied Mathematics I, II 2
  Select one of the following:
    APMA 0160  Introduction to Scientific Computing (preferred)
    CSCI 0040  Introduction to Scientific Computing and Problem Solving (preferred)
    CSCI 0150  Introduction to Object-Oriented Programming and Computer Science
    CSCI 0170  Computer Science: An Integrated Introduction
  Select one of the following:
    APMA 1200  Operations Research: Deterministic Models
APMA 1210  Operations Research: Deterministic Models
APMA 1650  Statistical Inference I 1

(b) 1
Select one of the following:
  APMA 1200  Operations Research: Probabilistic Models
  APMA 1210  Operations Research: Deterministic Models
  APMA 1660  Statistical Inference II
  APMA 1670  Statistical Analysis of Time Series
  APMA 1680  Nonparametric Statistics
  APMA 1690  Computational Probability and Statistics
  APMA 1700  The Mathematics of Insurance
  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
  ECON 1630  Econometrics I
  Select two 1000-level courses from the "mathematical-economics" group: 4
    ECON 1170  Welfare Economics and Social Choice Theory
    ECON 1225  Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
    ECON 1465  Market Design: Theory and Applications
    ECON 1470  Bargaining Theory and Applications
    ECON 1640  Econometrics II
    ECON 1650  Financial Econometrics
    ECON 1750  Investments II
    ECON 1759  Data, Statistics, Finance
    ECON 1810  Economics and Psychology
    ECON 1820  Behavioral Economics
    ECON 1850  Theory of Economic Growth
    ECON 1860  The Theory of General Equilibrium
    ECON 1870  Game Theory and Applications to Economics
  Select one 1000-level course from the "data methods" group: 4
    ECON 1305  Economics of Education: Research
    ECON 1310  Labor Economics
    ECON 1360  Health Economics
    ECON 1410  Urban Economics
    ECON 1510  Economic Development
    ECON 1520  The Economic Analysis of Institutions
    ECON 1530  Health, Hunger and the Household in Developing Countries
    ECON 1640  Econometrics II
    ECON 1650  Financial Econometrics
    ECON 1750  Investments II
    ECON 1759  Data, Statistics, Finance
    ECON 1765  Finance, Regulation, and the Economy: Research
    ECON 1850  Theory of Economic Growth
    ECON 1860  The Theory of General Equilibrium
    ECON 1870  Game Theory and Applications to Economics
  One additional 1000-level economics course

Total Credits 13

1  No course may be used to simultaneously satisfy (a) and (b).
2  APMA 0330 and APMA 0340 may be substituted with advisor approval.
3  Or ECON 1110 with permission.
4  No course may be used to simultaneously satisfy the "mathematical economics" and the "data methods" requirements.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Standard program for the Sc.B. degree
(Advanced Economics track) - class of 2016
and beyond

Prerequisites:
- MATH 0100  Introductory Calculus, Part II
- MATH 0520  Linear Algebra

Course Requirements:
Applied Mathematics Requirements

(a)  
- APMA 0350 & APMA 0360  Methods of Applied Mathematics I, II
- Select one of the following:
  - APMA 0160  Introduction to Scientific Computing (preferred)
  - CSCI 0040  Introduction to Scientific Computing and Problem Solving (preferred)
  - CSCI 0150  Introduction to Object-Oriented Programming and Computer Science
  - CSCI 0170  Computer Science: An Integrated Introduction

Select one of the following:
- APMA 1200  Operations Research: Probabilistic Models
- APMA 1210  Operations Research: Deterministic Models
- APMA 1650  Statistical Inference I

(b)  
- APMA 1200  Operations Research: Probabilistic Models
- APMA 1210  Operations Research: Deterministic Models
- APMA 1660  Statistical Inference II
- APMA 1670  Statistical Analysis of Time Series
- APMA 1680  Nonparametric Statistics
- APMA 1690  Computational Probability and Statistics
- APMA 1700  The Mathematics of Insurance
- APMA 1740  Recent Applications of Probability and Statistics
- MATH 1010  Analysis: Functions of One Variable

Economics Requirements:
- ECON 1130  Intermediate Microeconomics (Mathematical)
- ECON 1210  Intermediate Macroeconomics
- ECON 1630  Econometrics I
- Three 1000-level courses from the "mathematical-economics" group:
  - ECON 1170  Welfare Economics and Social Choice Theory
  - ECON 1225  Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
  - ECON 1465  Market Design: Theory and Applications
  - ECON 1470  Bargaining Theory and Applications
  - ECON 1640  Econometrics II
  - ECON 1650  Financial Econometrics
  - ECON 1750  Investments II
  - ECON 1759  Data, Statistics, Finance
  - ECON 1810  Economics and Psychology
  - ECON 1820  Behavioral Economics
  - ECON 1850  Theory of Economic Growth
  - ECON 1860  The Theory of General Equilibrium
  - ECON 1870  Game Theory and Applications to Economics
- One 1000-level course from the "data methods" group:
  - ECON 1305  Economics of Education: Research
  - ECON 1310  Labor Economics
  - ECON 1360  Health Economics

Total Credits 16

1  No course may be used to simultaneously satisfy (a) and (b).
2  APMA 0330 and APMA 0340 may be substituted with advisor approval.
3  Or ECON 1110 with permission.
4  No course may be used to simultaneously satisfy the "mathematical economics" and the "data methods" requirements.

Standard program for the A.B. degree
(Mathematical Finance track) - class of 2016
and beyond

Prerequisites:
- MATH 0100  Introductory Calculus, Part II
- MATH 0520  Linear Algebra

Course Requirements:
Applied Mathematics Requirements

(a)  
- APMA 0350 & APMA 0360  Methods of Applied Mathematics I, II
- Select one of the following:
  - APMA 1180  Introduction to Numerical Solution of Differential Equations
  - APMA 1330  Methods of Applied Mathematics III, IV
  - APMA 1660  Statistical Inference II
  - APMA 1670  Statistical Analysis of Time Series
  - APMA 1680  Nonparametric Statistics
  - APMA 1690  Computational Probability and Statistics
  - APMA 1700  The Mathematics of Insurance
  - APMA 1720  Monte Carlo Simulation with Applications to Finance (preferred)
  - APMA 1740  Recent Applications of Probability and Statistics
  - MATH 1010  Analysis: Functions of One Variable

Select one of the following:
- APMA 1180  Introduction to Numerical Solution of Differential Equations
- APMA 1330  Methods of Applied Mathematics III, IV
- APMA 1660  Statistical Inference II
- APMA 1670  Statistical Analysis of Time Series
- APMA 1680  Nonparametric Statistics
- APMA 1690  Computational Probability and Statistics
- APMA 1700  The Mathematics of Insurance
- APMA 1720  Monte Carlo Simulation with Applications to Finance (preferred)
- APMA 1740  Recent Applications of Probability and Statistics
- MATH 1010  Analysis: Functions of One Variable

Economics Requirements:
- ECON 1130  Intermediate Microeconomics (Mathematical)
- ECON 1210  Intermediate Macroeconomics
- ECON 1630  Econometrics I
- Two additional 1000-level economics courses

Total Credits 16

1  No course may be used to simultaneously satisfy (a) and (b).
2  APMA 0330 and APMA 0340 may be substituted with advisor approval.
3  Or ECON 1110 with permission.
4  No course may be used to simultaneously satisfy the "mathematical economics" and the "data methods" requirements.
ECON 1710 Investments I
ECON 1720 Corporate Finance
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1760 Financial Institutions
ECON 1765 Finance, Regulation, and the Economy: Research
ECON 1770 Fixed Income Securities
ECON 1780 Corporate Strategy
ECON 1790 Corporate Governance and Management

Select one 1000-level course from the "mathematical economics" group: 2

ECON 1170 Welfare Economics and Social Choice Theory
ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
ECON 1465 Market Design: Theory and Applications
ECON 1470 Bargaining Theory and Applications
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1820 Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics

Select one 1000-level course from the "data methods" group: 2

ECON 1305 Economics of Education: Research
ECON 1310 Labor Economics
ECON 1360 Health Economics
ECON 1410 Urban Economics
ECON 1510 Economic Development
ECON 1520 The Economic Analysis of Institutions
ECON 1530 Health, Hunger and the Household in Developing Countries
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1759 Data, Statistics, Finance
ECON 1765 Finance, Regulation, and the Economy: Research

Total Credits 13

1 APMA 0330 and APMA 0340 may be substituted with advisor approval.
2 No course may be used to simultaneously satisfy the "financial economics," the "mathematical economics," or the "data methods" requirements.
3 Or ECON 1110 with permission.

Standard program for the Sc.B. degree (Mathematical Finance track) - class of 2016 and beyond:

Prerequisites:
MATH 0100 Introductory Calculus, Part II
MATH 0520 Linear Algebra

Course Requirements:
Applied Mathematics requirements:
(a) APMA 0350 Methods of Applied Mathematics I, II
& APMA 0360 Methods of Applied Mathematics I, II 1

Select one of the following: 1
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

(b) Select two of the following: 2
APMA 1180 Introduction to Numerical Solution of Differential Equations
APMA 1330 Methods of Applied Mathematics III, IV
APMA 1660 Statistical Inference II
APMA 1670 Statistical Analysis of Time Series
APMA 1680 Nonparametric Statistics
APMA 1690 Computational Probability and Statistics
APMA 1700 The Mathematics of Insurance
APMA 1720 Monte Carlo Simulation with Applications to Finance (preferred)
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 Advanced Microeconomics
ECON 1630 Econometrics I

Select three 1000-level courses from the "financial economics" group: 3

ECON 1650 Financial Econometrics
ECON 1710 Investments I
ECON 1720 Corporate Finance
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1820 Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics
ECON 1790 Corporate Governance and Management

Select two 1000-level courses from the "mathematical economics" group: 2

ECON 1170 Welfare Economics and Social Choice Theory
ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
ECON 1465 Market Design: Theory and Applications
ECON 1470 Bargaining Theory and Applications
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1820 Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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). Beginning with the class of 2016, students not writing an honors thesis must complete an alternative senior capstone project and obtain the approval of a faculty sponsor.

Professional Track

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four month full-time professional experiences, doing work that is 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 concentration, with its three distinct but overlapping tracks, is intended to allow students flexibility in structuring their own path through this diverse field of study. The concentration is also designed to allow students to build progressively upon what they have learned, moving from introductory courses to upper level seminars.

The three tracks are: Archaeology and the Ancient World; Classical Archaeology; and Egyptian and Ancient Western Asian Archaeology. Archaeology and the Ancient World is the most exploratory of the concentration tracks, and this option emphasizes material culture studies across the full spectrum of the ancient world. Classical Archaeology is intended for those interested chiefly in the 'classic' civilizations of the Mediterranean (Greece and Rome), as well as for those interested in both earlier (prehistoric) and later (medieval) periods in that geographic region. Egyptian and Ancient Western Asian Archaeology is intended for those interested chiefly in the cultures of Egypt and Ancient Western Asia (the ancient ‘Near East’ – Anatolia, the Levant, Mesopotamia), from prehistoric through Islamic times.

Required Courses:

The student must take a total of 10 courses, including:

Core Requirements:

One introductory course in archaeological methodology, history and/or theoretical approaches, for example:

- ARCH 0100 Field Archaeology in the Ancient World
- ARCH 1900 The Archaeology of College Hill

One introductory course in the methodology, history and/or theoretical approaches of ancient art history, for example:

- ARCH 0030 Art in Antiquity: An Introduction
- ARCH 0420 Archaeologies of the Greek Past
- ARCH 0520 Roman Archaeology and Art
- HIAA 0010 A Global History of Art and Architecture

Two cognate courses, not listed primarily by the Joukowsky Institute, which EITHER relate to the study of the ancient world OR to the discipline of archaeology. Outside courses are chosen with the approval of the concentration advisor from appropriate 1000-level (or above) offerings in other departments such as, but not limited to: Anthropology, Classics, Early Cultures, Egyptology and Ancient Western Asian Studies, Environmental Studies, Geological Sciences, History, History of Art and Architecture, Religious Studies. One term of language study, in any ancient language, may also be counted toward this requirement.

Track Requirements:

Archaeology and the Ancient World:

Two courses in Egyptian or Ancient Western Asian archaeology and art.

Two courses in Mediterranean (prehistoric, Greek, Roman, medieval) archaeology and art.

Two additional courses, in EITHER Mediterranean (prehistoric, Greek, Roman, medieval) archaeology OR Egyptian or Ancient Western Asian archaeology and art, at or above the 1000-level.

Classical Archaeology:

One course in Egyptian or Ancient Western Asian archaeology and art.

Three courses in Mediterranean (prehistoric, Greek, Roman, medieval) archaeology and art, at least two of which must be at or above the 1000-level.

One course in ancient Greek or Roman history, for example:

- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander
- CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 479 to 323 BC
- CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic

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

Along with Greek, Latin, and Mathematics, Astronomy counts as one of the oldest continuously taught subjects in the Brown curriculum. It is the study of the properties of stars, galaxies, and the Universe, and as such combines elements from the disciplines of both Physics and Planetary Geology. Students pursuing this concentration complete introductory coursework in classical mechanics, relativity, and astrophysics, along with mathematics and electromagnetism. They go on to complete courses in stellar and extragalactic astrophysics as well as cosmology. Facilities available to concentrators include the historic Ladd Observatory.

Standard concentration for the A.B. degree

Eleven or twelve courses are required (depending on the satisfaction of prerequisites).

Prerequisites

- PHYS 0070 Analytical Mechanics
- PHYS 0160 Introduction to Relativity and Quantum Physics
- PHYS 0270 Introduction to Astronomy

Select one of the following Series: 1-2

- MATH 0170 Advanced Placement Calculus
- MATH 0180 and Intermediate Calculus
- MATH 0190 Advanced Placement Calculus (Physics/Engineering)
- MATH 0200 and Intermediate Calculus (Physics/Engineering)
- MATH 0350 Honors Calculus (or equivalent)
- PHYS 0470 Electricity and Magnetism

Program

Select one of the following mathematics courses: 1

- MATH 0520 Linear Algebra
- MATH 0540 Honors Linear Algebra
- PHYS 0720 Methods of Mathematical Physics
- APMA 0330 Methods of Applied Mathematics I, II
- APMA 0340 Methods of Applied Mathematics I, II

Select two of the following astrophysics courses: 2

- PHYS 1100 Introduction to General Relativity
- PHYS 1250 Stellar Structure and the Interstellar Medium
- PHYS 1270 Extragalactic Astronomy and High-Energy Astrophysics
- PHYS 1280 Introduction to Cosmology

Three additional 1000- or 2000-level courses in physics or a related field, suggestions: 3

- APMA 1670 Statistical Analysis of Time Series
- ENGR 1860 Advanced Fluid Mechanics
- GEOL 0810 Planetary Geology
- GEOL 1810 Physics of Planetary Evolution
- MATH 1060 Differential Geometry
- PHYS 0500 Advanced Classical Mechanics
- PHYS 0560 Experiments in Modern Physics
- PHYS 1410 Quantum Mechanics A
- PHYS 1510 Advanced Electromagnetic Theory
- PHYS 1530 Thermodynamics and Statistical Mechanics
- PHYS 1560 Modern Physics Laboratory

Total Credits: 11-12

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.

Three courses in mathematics, statistics and/or computer science, typically including MATH 0090, MATH 0100, or equivalent.¹

Two courses in physics, typically:¹

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0030 Basic Physics</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 0050 Foundations of Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ENGN 0030 Introduction to Engineering</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 0040 Basic Physics</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 0060 Foundations of Electromagnetism and Modern Physics</td>
<td>3</td>
</tr>
<tr>
<td>ENGN 0040 Dynamics and Vibrations</td>
<td>3</td>
</tr>
</tbody>
</table>

Three courses in physical and organic chemistry:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330 Equilibrium, Rate, and Structure</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 0350/0360 Organic Chemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

One course in biophysical or related chemistry:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0400 Biophysical and Bioinorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0500 Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1660 Instrumental Analysis with Environmental Applications</td>
<td>1</td>
</tr>
</tbody>
</table>

- or -

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO 1660 Instrumental Analysis with Environmental Applications</td>
<td>1</td>
</tr>
</tbody>
</table>

Three courses in biochemistry:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0280 Introductory Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 1270 Advanced Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1230 Chemical Biology</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1240 Biochemistry</td>
<td>3</td>
</tr>
</tbody>
</table>

Select two semester courses of independent research approved by a concentration advisor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1950/1960 Directed Research/Independent Study</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 0970/0980 Undergraduate Research</td>
<td>2</td>
</tr>
</tbody>
</table>

Suggested Elective Courses:

Students are required to take six (6) elective courses: four (4) taken from the chart below and two (2) from any science or mathematics course relevant to biochemistry, cell and molecular biology from the suggested courses below:

**Biology Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200 The Foundation of Living Systems</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 0470 Genetics</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 0500 Cell and Molecular Biology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 0530 Principles of Immunology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 0800 Principles of Physiology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1050 Biology of the Eukaryotic Cell</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1090 Polymer Science for Biomaterials</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1100 Cell Physiology and Biophysics</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1110 Topics in Signal Transduction</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1200 Protein Biophysics and Structure</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1150 Stem Cell Engineering</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1260 Physiological Pharmacology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1290 Cancer Biology</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1540 Molecular Genetics</td>
<td>2</td>
</tr>
<tr>
<td>BIOL 1560 Virology</td>
<td>2</td>
</tr>
</tbody>
</table>

**Neuroscience Electives:**²

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 1020 Principles of Neurobiology</td>
<td>2</td>
</tr>
<tr>
<td>NEUR 1670 Neuropharmacology and Synaptic Transmission</td>
<td>2</td>
</tr>
</tbody>
</table>

**Chemistry Electives:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0500 Inorganic Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1140 Physical Chemistry: Quantum Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1220 Computational Tools in Biochemistry and Chemical Biology</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1230 Chemical Biology</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1240 Biochemistry</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 1450 Advanced Organic Chemistry</td>
<td>2</td>
</tr>
</tbody>
</table>

**Quantitative Science or Mathematics Electives:**²

Select two electives from any quantitative science or mathematics course relevant to biochemistry (including courses on the preceding list) and approved by a concentration advisor.

Total Credits: 20

¹ Note that the mathematics and physics requirements may be satisfied by Advanced Placement credit.

² or any NEUR course in Cell, Genetics, Molecular Biology, or Development.

**Honors Requirements for Biochemistry**

All ScB Biochemistry concentrators are candidates for Honors; no separate application is necessary.

The requirements for Honors in Biochemistry are:

- A strong grade record in concentration courses. This means a grade point average for the concentration that is higher than 3.50.
- 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](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 A.B. or Sc.B. in biology, students can expect to learn broadly in the discipline through a selection of courses in three areas: cell and molecular biology, structure and function, and organismal biology. In addition, students pursuing the Sc.B complete a thematic 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; Marine Biology). 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 Code</th>
<th>Course 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)</td>
</tr>
<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>

One of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part I (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 Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (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 Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0280</td>
<td>Introductory 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 1050</td>
<td>Biology of the Eukaryotic Cell</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
</tr>
</tbody>
</table>

### Area 2 (Structure/Function)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0320</td>
<td>Vertebrate Embryology</td>
</tr>
<tr>
<td>BIOL 0400</td>
<td>Biological Design: Structural Architecture of Organisms</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Plant Organism</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</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 Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0370</td>
<td>Experimental Evolution: Seeing Darwin in Real Time</td>
</tr>
<tr>
<td>BIOL 0380</td>
<td>The Ecology and Evolution of Infectious Disease</td>
</tr>
<tr>
<td>BIOL 0390</td>
<td>Vertebrate Evolution and Diversity</td>
</tr>
<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 0415</td>
<td>Microbes in the Environment</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 0475</td>
<td>Conservation Medicine</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 1800</td>
<td>Animal Locomotion</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
</tr>
<tr>
<td>ENVS 0455</td>
<td>Coastal Ecology and Conservation</td>
</tr>
<tr>
<td>ENVS 0490</td>
<td>Environmental Science in a Changing World</td>
</tr>
</tbody>
</table>

**Honors:** Honors in biology requires a thesis and presentation based on a research project (conducted via BIOL 1950/BIOL 1960), and quality grades in the concentration. Guidelines, a manual, and information on faculty research are available in the Office of Biology Undergraduate Education (Arnold, Room 124) or at the Research Projects Collection, found at http://biology.brown.edu/bug/honors.

**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.

**Prerequisites:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I (or placement)</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II</td>
</tr>
<tr>
<td>MATH 0170</td>
<td>Advanced Placement Calculus</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics (or equivalent)</td>
</tr>
<tr>
<td>PHYS 0040</td>
<td>Basic Physics (or equivalent)</td>
</tr>
</tbody>
</table>

**Core Courses:**

<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 (or placement)</td>
</tr>
</tbody>
</table>

The Area requirement must be fulfilled by taking at least one course in each of these groups:

### Area 1 (Cell/Molecular Biology)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0280</td>
<td>Introductory 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 1050</td>
<td>Biology of the Eukaryotic Cell</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
</tr>
</tbody>
</table>

### Area 2 (Structure/Function)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0320</td>
<td>Vertebrate Embryology</td>
</tr>
<tr>
<td>BIOL 0400</td>
<td>Biological Design: Structural Architecture of Organisms</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Plant Organism</td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
</tr>
<tr>
<td>BIOL 1100</td>
<td>Cell Physiology and Biophysics</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
</tr>
</tbody>
</table>

### Area 3 (Organismal Biology)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0370</td>
<td>Experimental Evolution: Seeing Darwin in Real Time</td>
</tr>
<tr>
<td>BIOL 0380</td>
<td>The Ecology and Evolution of Infectious Disease</td>
</tr>
<tr>
<td>BIOL 0390</td>
<td>Vertebrate Evolution and Diversity</td>
</tr>
<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 0415</td>
<td>Microbes in the Environment</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 0475</td>
<td>Conservation Medicine</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 1800</td>
<td>Animal Locomotion</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
</tr>
<tr>
<td>ENVS 0455</td>
<td>Coastal Ecology and Conservation</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. At least two at the advanced (1000-2000) level. The Core may include up to two related sciences, with advisor approval.

**Total Credits:**

1 AP scores of 4 or above may substitute Math courses.
2 At least two biology and/or neuroscience courses must be at the advanced level (between 1000-2999).
3 No substitutions per above Area list. If a course is listed in more than one area, it may be used to fulfill one of those, the other must be fulfilled by a different course.
4 Biology courses for concentration credit include those numbered greater than 0100 with some exceptions noted within the course descriptions. Courses numbered over 3000 do not count towards Undergraduate requirements either quantity or for concentration.

**Undergraduate Concentrations**

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

Biophysics is that it 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.

Standard program for the Sc.B. degree

Requirements

Select one of the following Series: 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics &amp; PHYS 0060 and Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics &amp; PHYS 0160 and Introduction to Relativity and Quantum Physics</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
</tr>
</tbody>
</table>

Select one of the following: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0400</td>
<td>Biophysical and Bioorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
</tr>
<tr>
<td>PHYS 1610</td>
<td>Biological Physics</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or equivalent)</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus (or equivalent)</td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems</td>
</tr>
</tbody>
</table>

Select two additional biology courses chosen with approval of the advisor. Examples include courses in:

**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
- BIOL 1190 Synaptic Transmission and Plasticity

Total Credits: 21

1. Advanced students can replace one math course with CHEM 0360.
2. Advanced students (premeds) can replace with BIOL 0470, BIOL 0530, or other biology courses.

Business, Entrepreneurship and Organizations

Business, Entrepreneurship and Organizations (BEO), formerly Commerce, Organizations and Entrepreneurship (COE) is a multidisciplinary concentration that provides a rigorous and synergistic program in the study of commercial activity grounded in economics, sociology and engineering. BEO focuses on the formation, growth, and organization of new ventures, innovation in commercial applications, financial markets and the marketplace, and management and organizational theory. Concentrators seek to understand the basic principles, approaches and vocabulary relevant to the study of entrepreneurship from the disciplines of economics, organizational
sociology and engineering. Building on this multidisciplinary base, students develop specialized expertise in one of the three disciplinary approaches, with special emphasis on critical reasoning and quantitative research methods. In senior year capstone projects, students apply and integrate multi-disciplinary learning by working in groups on real world projects, including the creation of new ventures.

The three tracks of the concentration are as follows:
1. Business Economics
2. Organizational Studies
3. Entrepreneurship and Technology Management

Upon completion of all concentration requirements, students receive the Bachelor of Arts (A.B.) degree in Business, Entrepreneurship and Organizations.

The Curriculum

### Business Economics Track

**Foundation 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: 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>
</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 0090</td>
<td>Introductory Calculus, Part I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1620</td>
<td>Introduction to Econometrics</td>
<td>1</td>
</tr>
</tbody>
</table>

**Track Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0710</td>
<td>Financial Accounting</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1210</td>
<td>Intermediate Macroeconomics</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1710</td>
<td>Investments I</td>
<td>1</td>
</tr>
<tr>
<td>ECON 1720</td>
<td>Corporate Finance</td>
<td>1</td>
</tr>
<tr>
<td>One Data Methods-intensive course from the following list: 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECON 1310/1130</td>
<td>Labor Economics</td>
<td></td>
</tr>
<tr>
<td>ECON 1360</td>
<td>Health Economics</td>
<td></td>
</tr>
<tr>
<td>ECON 1390</td>
<td>Research Methods for Economists</td>
<td></td>
</tr>
<tr>
<td>ECON 1510</td>
<td>Economic Development</td>
<td></td>
</tr>
<tr>
<td>ECON 1520</td>
<td>The Economic Analysis of Institutions</td>
<td></td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Econometrics I</td>
<td></td>
</tr>
<tr>
<td>ECON 1640</td>
<td>Econometrics II</td>
<td></td>
</tr>
<tr>
<td>ECON 1650</td>
<td>Financial Econometrics</td>
<td></td>
</tr>
<tr>
<td>ECON 1750</td>
<td>Investments II</td>
<td></td>
</tr>
<tr>
<td>ECON 1759</td>
<td>Data, Statistics, Finance</td>
<td></td>
</tr>
<tr>
<td>ECON 1765</td>
<td>Finance, Regulation, and the Economy: Research</td>
<td></td>
</tr>
<tr>
<td>One 1000-level econometrics course, including a second data methods intensive course from the list above</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Capstone: one-semester required (must be taken fall of senior year) 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEO 1930C</td>
<td>BEO Capstone I: Business Economics Track</td>
<td></td>
</tr>
</tbody>
</table>

Total Credits: 15

1 Or an optional two-semester capstone from the BEO 1930 and 1940 series

### Organizational Studies 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>
</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>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: 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>
</tr>
</tbody>
</table>

**Track Requirements**

One Introduction to Research Methods course (selected from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1050</td>
<td>Methods of Research in Organizations</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1020</td>
<td>Methods of Social Research</td>
<td>1</td>
</tr>
</tbody>
</table>

One Advanced Research Methods course (selected from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1120</td>
<td>Market and Social Surveys</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1117</td>
<td>Focus Groups for Market and Social Research</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1118</td>
<td>Context Research for Innovation</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1260</td>
<td>Market Research in Public and Private Sectors</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1340</td>
<td>Principles and Methods of Geographic Information Systems</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1871W</td>
<td>Geographical Analysis of Society</td>
<td></td>
</tr>
<tr>
<td>SOC 2020</td>
<td>Multivariate Statistical Methods II</td>
<td></td>
</tr>
<tr>
<td>SOC 2210</td>
<td>Qualitative Methods</td>
<td></td>
</tr>
<tr>
<td>SOC 2220</td>
<td>Advanced Quantitative Methods of Sociology Analysis</td>
<td>1</td>
</tr>
<tr>
<td>SOC 2240</td>
<td>Event History Analysis</td>
<td></td>
</tr>
<tr>
<td>ANTH 1940</td>
<td>Ethnographic Research Methods</td>
<td></td>
</tr>
<tr>
<td>ECON 1390</td>
<td>Research Methods for Economists</td>
<td></td>
</tr>
<tr>
<td>ECON 1630</td>
<td>Econometrics I</td>
<td></td>
</tr>
<tr>
<td>EDUC 1100</td>
<td>Introduction to Qualitative Research Methods</td>
<td>1</td>
</tr>
<tr>
<td>EDUC 1160</td>
<td>Evaluating the Impact of Social Programs</td>
<td></td>
</tr>
<tr>
<td>PHP 1320</td>
<td>Survey Research in Health Care</td>
<td></td>
</tr>
<tr>
<td>PPAI 1200</td>
<td>Policy Analysis and Program Evaluation</td>
<td></td>
</tr>
</tbody>
</table>

One Advanced Organization Studies course (selected from the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1060</td>
<td>Leadership in Organizations</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1080</td>
<td>Groups in Organizations</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1540</td>
<td>Human Needs and Social Services</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1870A</td>
<td>Investing in Social Change</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1871M</td>
<td>Theories of the Third Sector and Civil Society</td>
<td>1</td>
</tr>
<tr>
<td>SOC 1871O</td>
<td>Law, Innovation and Entrepreneurship</td>
<td>1</td>
</tr>
<tr>
<td>SOC 2060</td>
<td>Complex Organizations and Health Policy</td>
<td>1</td>
</tr>
<tr>
<td>SOC 2960M</td>
<td>Sociology of Organizations Graduate Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1730</td>
<td>Psychology in Business and Economics</td>
<td></td>
</tr>
<tr>
<td>PPAI 1700V</td>
<td>Nonprofit Organizations</td>
<td></td>
</tr>
<tr>
<td>PPAI 1700Y</td>
<td>Crisis Management</td>
<td></td>
</tr>
<tr>
<td>PPAI 2550</td>
<td>Managing and Leading in Public Affairs</td>
<td></td>
</tr>
</tbody>
</table>

Two Organization-Relevant Electives (selected from the following): 2

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1114</td>
<td>Law and Society</td>
<td></td>
</tr>
<tr>
<td>SOC 1410</td>
<td>Aging and the Quality of Life</td>
<td></td>
</tr>
<tr>
<td>SOC 1550</td>
<td>Sociology of Medicine</td>
<td></td>
</tr>
<tr>
<td>SOC 1870L</td>
<td>The Economic Foundations of Everyday Life</td>
<td></td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
SOC 1871C Sociology of the Legal Profession
AMST 1610A American Advertising: History and Consequences
ECON 1760 Financial Institutions
EDUC 1020 The History of American Education
EDUC 1040 Sociology of Education
EDUC 1150 Education, the Economy and School Reform
EDUC 1200 History of American School Reform
EDUC 1650 Policy Implementation in Education
EDUC 1730 American Higher Education in Historical Context
ENGN 1930S Land Use and Built Environment: An Entrepreneurial View
ETHN 1890C Business, Culture, and Globalization: An Ethnographic Perspective
PHP 2400 The U.S. Health Care System: Case Studies in Financing, Delivery, Regulation and Public Health
POL 1150 Prosperity: The Ethics and Economics of Wealth Creation
POL 1240 Politics, Markets and States in Developing Countries
POL 1820W Market Liberalism: Origins, Principles and Contemporary Applications
PPAI 1700B Social Welfare Policy in the United States
PPAI 1700K Health Policy Challenges
PPAI 1700R Urban Revitalization: Lessons from the Providence Plan
PPAI 1701D Aging and Public Policy: The Impact of an Aging Society on Public and Private Sector Organizations
PPAI 1910 Social Entrepreneurship
Capstone: one-semester required (must be taken fall of senior year)
BE 1930A BEO Capstone I: Organizational Studies Track
Total Credits 14

Entrepreneurship and Technology Management Track
Foundation Requirements (foundation requirements must be completed before taking the capstone in fall of senior year)
ECON 0110 Principles of Economics
ECON 1110 Intermediate Microeconomics
SOC 1311 Micro-Organizational Theory: Social Behavior in Organizations
SOC 1315 Macro-Organizational Theory: Organizations in Social Context
ENGN 0030 Introduction to Engineering
ENGN 1010 The Entrepreneurial Process: Innovation in Practice
Math and Statistics Requirements
MATH 0200 Intermediate Calculus (Physics/Engineering)
or APMA 0330 Methods of Applied Mathematics I, II
SOC 1100 Introductory Statistics for Social Research
or APMA 0650 Essential Statistics
or ENGN 1620 Introduction to Econometrics
Track Requirements
One gateway course in Engineering or another physical science
Five courses that develop expertise in a technical subfield
Capstone: two-semesters required (must be taken fall and spring of senior year)
BE 1930B BEO Capstone I: Entrepreneurship and Technology Management Track
Total Credits 16

BEO 1940B BEO Capstone II: Entrepreneurship and Technology Management Track

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. Core courses are:

CHEM 0330 Equilibrium, Rate, and Structure
CHEM 0350 Organic Chemistry
CHEM 0500 Inorganic Chemistry
CHEM 1140 Physical Chemistry: Quantum Chemistry
PHYS 0070 Analytical Mechanics
PHYS 0160 Introduction to Relativity and Quantum Physics
PHYS 0470 Electricity and Magnetism

Select one of the following laboratory courses:

CHEM 1160 Physical Chemistry Laboratory
PHYS 0560 Experiments in Modern Physics
PHYS 1560 Modern Physics Laboratory

Select one course in statistical mechanics:

CHEM 1150 Physical Chemistry: Thermodynamics and Statistical Mechanics
PHYS 1530 Thermodynamics and Statistical Mechanics
MATH 0190 Advanced Placement Calculus (Physics/Engineering)
MATH 0200 Intermediate Calculus (Physics/Engineering)
MATH 0520 Linear Algebra

Seven courses, primarily at the 1000 or 2000 level, in chemistry or physics.
Select two semesters of independent study:

CHEM 0970/0980 Undergraduate Research
PHYS 1990 Senior Conference Course

Total Credits 21

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.

Chemistry

The Chemistry concentration offers courses and research opportunities that range from fundamental studies involving the characterization and preparation of synthetic and naturally occurring molecules, to
interdisciplinary studies at the interfaces of chemistry with biology, medicine, physics, engineering, and nanoscience. As early as their first year, undergraduates are able to work on-ones or in small groups with faculty members on cutting edge research projects. The Sc.B. degree provides a thorough foundation for further graduate study or for entry-level technical positions in each area. Students seeking the Sc.B. may either pursue the standard Chemistry concentration or one of the two optional tracks: Chemical Biology or Materials Chemistry. Students may also pursue the A.B. degree in Chemistry, which provides a core education in the discipline.

**Standard program for the A.B. degree**

<table>
<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 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0500</td>
<td>Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statistical Mechanics</td>
<td></td>
</tr>
<tr>
<td>CHEM 1160</td>
<td>Physical Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>Two advanced science/math electives</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

1. Note that the physical chemistry courses (CHEM 1140, CHEM 1150, CHEM 1160) have mathematics and physics prerequisites.
2. At least one must be a chemistry course. BIOL 0280 is credited as an elective for the chemistry concentration.

**Standard program for the Sc.B. degree**

The Chemistry Department offers three tracks for the Sc.B. Chemistry Concentration — a Chemistry track, a Chemical Biology track and a Materials Chemistry track. These tracks are not separate concentrations — your degree will still be an Sc.B. in Chemistry. The Chemical Biology track is designed for students who have a strong interest in the interface of chemistry with biology. The Materials Chemistry track is designed for students who have a strong interest in the interface of chemistry with nanoscience and materials science.

**Concentrating in Chemistry — Three tracks**

The required/recommended courses for the three tracks are given below.

**Chemistry Track:**

<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 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0500</td>
<td>Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0970</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0980</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statistical Mechanics</td>
<td></td>
</tr>
<tr>
<td>CHEM 1160</td>
<td>Physical Chemistry Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>or equivalent</td>
<td>1</td>
</tr>
<tr>
<td>Two Physics courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Seven electives (at least three must be in Chemistry)</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

**Chemical Biology Track:**

<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 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0400</td>
<td>Biophysical and Bioinorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0970</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0980</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1230</td>
<td>Chemical Biology</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1240</td>
<td>Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Introductory Biochemistry</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>Two Physics courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Select three of the following:</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIOL 0470</td>
<td>Genetics</td>
<td></td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0510</td>
<td>Introductory Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
<td></td>
</tr>
<tr>
<td>NEUR 1020</td>
<td>Principles of Neurobiology</td>
<td></td>
</tr>
<tr>
<td>Three other electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

**Materials Chemistry Track:**

<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 0360</td>
<td>Organic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0500</td>
<td>Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0970</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0980</td>
<td>Undergraduate Research</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1060</td>
<td>Advanced Inorganic Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1140</td>
<td>Physical Chemistry: Quantum Chemistry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statistical Mechanics</td>
<td></td>
</tr>
<tr>
<td>CHEM 1700</td>
<td>Nanoscale Materials: Synthesis and Applications</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0180</td>
<td>or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>Two Physics courses</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIOL 1090</td>
<td>Polymer Science for Biomaterials</td>
<td>1</td>
</tr>
<tr>
<td>Five electives, at least two must be chemistry courses.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td>19</td>
<td></td>
</tr>
</tbody>
</table>

1. BIOL 0280 is credited as an elective for the chemistry concentration.
2. For students with a more Engineering bent, the following substitutions can be made - ENGN 0030/ENGN 0040 can be substituted for PHYS; ENGN 0410 can be substituted for CHEM 1060; ENGN 0720 for CHEM 1150.
3. NOTE: MATH 0180 has additional prerequisites.
4. NOTE: Many of the BIOL courses have BIOL 0200 as a prerequisite.

In each of these cases, CHEM 0970/CHEM 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

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

Classics focuses on the languages, literature, history, and culture of Greco-Roman antiquity. It provides specialized training for students intending to enter graduate school, and a broad liberal education for those with more general interests. Students may choose to study Ancient Greek, Latin, Sanskrit, or Modern Greek and gain knowledge in literature, mythology, ancient history, philosophy, and religion. Students may either pursue the standard Classics concentration - the most popular choice - or they may pursue one of the several optional tracks: Greek, Latin, Greek and Latin, South Asian Classics, Sanskrit, Greek and Sanskrit, or Latin and Sanskrit. Concentrators are strongly encouraged to integrate their studies in various fields of Classics by writing a senior thesis, by participating in an undergraduate seminar, or by undertaking a senior capstone project.

All tracks except "Greek and Latin," "Greek and Sanskrit," and "Latin and Sanskrit" require the satisfactory completion of eight courses as described below. Programs are flexible and students are encouraged to discuss their plans with the concentration advisor. The introductory courses in Greek and Latin may not usually be counted toward a concentration, but those in Sanskrit may be counted in some of the tracks.

Classics

One course in Greek or Latin on the 1000-level or above.

Select one of the following series.

- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander and The Fall of Empires and Rise of Kings: Greek History 479 to 323 BC
- CLAS 1220 Death of Alexander and The Fall of Empires and Rise of Kings: Greek History 479 to 323 BC
- CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic and Roman History II: The Roman Empire and Its Impact

Five other courses in classics, including classical archaeology, Greek, Latin, Sanskrit, or related areas to be approved by the concentration advisor.

Total Credits

Greek

Four Greek courses on the 1000-level or above, at least one of which is to be:

- GREEK 1810 Early Greek Literature
- GREEK 1820 Fifth Century Survey
- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander
- CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 479 to 323 BC

Two additional courses in classics, including classical archaeology, Greek, Latin, or related areas to be approved by the concentration advisor.

Total Credits

Latin

Four Latin courses on the 1000-level or above, at least one of which is to be:

- LATN 1810 Survey of Republican Literature
- LATN 1820 Survey of Roman Literature II: Empire
- CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic
- CLAS 1320 Roman History II: The Roman Empire and Its Impact

Two additional courses in classics, including classical archaeology, Greek, Latin, or related areas to be approved by the concentration advisor.

Total Credits

Greek and Latin

Four Latin courses on the 1000-level or above, at least one of which is to be:

- LATN 1810 Survey of Republican Literature
- LATN 1820 Survey of Roman Literature II: Empire

Four Greek courses on the 1000-level or above, at least one of which is to be:

- GREEK 1810 Early Greek Literature
- GREEK 1820 Fifth Century Survey
- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander
- CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 479 to 323 BC

Two additional courses in classics, including classical archaeology, Greek, Latin, or related areas to be approved by the concentration advisor.

Total Credits

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

Total Credits

Sanskrit

Two Sanskrit courses at the 1000-level or above

Two 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

Total Credits

Greek and Sanskrit

Four Sanskrit courses at any level

Four Greek courses on the 1000-level or above, at least one of which is to be:

- GREEK 1810 Early Greek Literature
- GREEK 1820 Fifth Century Survey
- CLAS 1210 The History of Greece from Archaic Times to the Death of Alexander
- CLAS 1220 The Fall of Empires and Rise of Kings: Greek History 479 to 323 BC

Two additional 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

Total Credits

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Latin and Sanskrit
Four Sanskrit courses at any level 4
Four Latin courses on the 1000-level or above, at least one of which is to be 4
LATN 1810 Survey of Republican Literature 1
or LATN 1820 Survey of Roman Literature II: Empire 1
CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic 1
CLAS 1320 Roman History II: The Roman Empire and Its Impact 1
Two additional 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 2
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 a concentration. In order to qualify, the candidate for honors in the Department of Classics ordinarily will be entering his/her seventh semester of study and must have an “A” average (3.50 or higher on a 4.00 scale) in the concentration.

Cognitive Neuroscience
Cognitive neuroscience is the study of higher cognitive functions in humans and their underlying neural bases. It is an integrative area of study drawing primarily from cognitive science, psychology, neuroscience, and linguistics. There are two broad directions that can be taken in this concentration - one is behavioral/experimental and the other is computational/modeling. In both, the goal is to understand the nature of cognition from a neural perspective. The standard concentration for the Sc.B. degree requires courses on the foundations, systems level, and integrative aspects of cognitive neuroscience as well as laboratory and elective courses that fit within a particular theme or category such as general cognition, perception, language development or computational/modeling. Concentrators must also complete a senior seminar course or an independent research course. Students may also participate in the work of the Brown Institute for Brain Science, an interdisciplinary program that unites ninety faculty from eleven departments.

Standard program for the ScB degree
Concentration Courses
A total of 16 courses are required for the concentration. Each student is required to pass 9 courses designed to introduce students to the foundations (5), systems level and integrative aspects (4) which uniquely define cognitive neuroscience; two laboratory courses; four elective courses; and either a senior seminar course CLPS 1900 or an independent research course. The laboratory and elective courses should fit within a particular theme or category such as general cognition, perception, language development, or computational/modeling. The design of the concentration and selection of courses should be made in consultation with the faculty advisor.

Foundation Courses:
BIOL 0200 The Foundation of Living Systems 1
CLPS 0200 Human Cognition 1
Select 1 of the following: 1
CLPS 0900 Quantitative Methods in Psychology
APMA 1650 Statistical Inference I
CLPS 2906 Experimental Design
MATH 0900 Introductory Calculus, Part I (or equivalent) 1
NEUR 0010 The Brain: An Introduction to Neuroscience 1

Note: Students wishing to pursue a computational/modeling track are encouraged to take APMA 1650

Systems Level and Integrative Courses:
CLPS 0040 Mind and Brain: Introduction to Cognitive Neuroscience 1
CLPS 0400 Brain Damage and the Mind 1
CLPS 1291 Computational Cognitive Science 1
or CLPS 1492 Computational Cognitive Neuroscience 1
or APMA 0410 Mathematical Methods in the Brain Sciences 1
NEUR 1030 Neural Systems 1

Laboratory Courses: 2
Students must choose two laboratory courses. Please note that due to enrollment limits in some lab courses, priority may be given to concentrators in that department. Students should therefore be prepared to choose from the other laboratory options.

CLPS 1192 Experimental Analysis of Animal Behavior and Cognition
CLPS 1193 Laboratory in Genes and Behavior
CLPS 1290 Laboratory in Cognitive Processes
CLPS 1490 Functional Magnetic Resonance Imaging: Theory and Practice
CLPS 1491 Neural Modeling Laboratory
CLPS 1510 Psychology of Hearing
CLPS 1690 Laboratory in Developmental Psychology
CLPS 1791 Laboratory in Social Cognition
CLPS 1890 Laboratory in Psycholinguistics
CLPS 1891 Research Methods in Physiologic and Acoustic Phonetics
CLPS 1970 Directed Reading in Cognitive, Linguistic and Psychological Sciences
or NEUR 1970 Independent Study
NEUR 1600 Experimental Neurobiology
NEUR 1650 Structure of the Nervous System
NEUR 1670 Neuropharmacology and Synaptic Transmission
NEUR 1680 Computational Neuroscience

Electives: 4
Electives can be characterized as either core cognitive neuroscience courses which focus directly on the intersection of mind and brain, or related courses which focus primarily on either the mind or brain. Electives may be chosen from either group.

Normally only one elective course that is below the 1000-level may count towards the elective courses required. An appropriate (but additional) laboratory course may be used in lieu of one of the four elective courses. Appropriate Topics course offerings (not listed below) may also count as electives with the approval of the Concentration Advisor.

Core Cognitive Neuroscience Electives:
CLPS 0410 Principles of Behavioral Neuroscience
CLPS 1150 Memory and the Brain
CLPS 1180B Biology of Communication
CLPS 1400 The Neural Bases of Cognition
CLPS 1470 Mechanisms of Motivated Decision Making
CLPS 1480B Cognitive Aging and Dementia
CLPS 1480C Cognitive Control Functions of the Prefrontal Cortex
CLPS 1560 Visually-Guided Action and Cognitive Processes
CLPS 1570 Perceptual Learning
CLPS 1571 Visual Consciousness
CLPS 1620 Developmental Cognitive Neuroscience
CLPS 1621 The Developing Brain
CLPS 1820 Language and the Brain
CLPS 1821 Neuroimaging and Language
NEUR 0650 Biology of Hearing
NEUR 1540 Neurobiology of Learning and Memory

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 1740</td>
<td>The Diseased Brain: Mechanisms of Neurological and Psychiatric Disorders</td>
</tr>
<tr>
<td>NEUR 1930A</td>
<td>Cognitive Neuroscience: Motor Learning</td>
</tr>
<tr>
<td>NEUR 1940I</td>
<td>Neural Correlates of Consciousness</td>
</tr>
<tr>
<td>NEUR 1930B</td>
<td>From Neurophysiology to Perception</td>
</tr>
<tr>
<td>NEUR 1940D</td>
<td>Higher Cortical Function</td>
</tr>
</tbody>
</table>

**Related Electives:**
- CLPS 0210 Human Thinking and Problem-Solving
- CLPS 0220 Making Decisions
- CLPS 0500 Perception and Mind
- CLPS 0600 Child Development
- CLPS 0610 Children’s Thinking: The Nature of Cognitive Development
- CLPS 0800 Language and the Mind
- CLPS 1100 Animal Cognition
- CLPS 1130 Psychology of Timing
- CLPS 1140 Psychophysiology of Sleep and Dreams
- CLPS 1200 Thinking
- CLPS 1210 Human Memory and Learning
- CLPS 1220 Concepts and Categories
- CLPS 1230 Seminar in Decision Making
- CLPS 1240 Reasoning and Problem Solving
- CLPS 1241 Causal Reasoning
- CLPS 1320 The Production, Perception, and Analysis of Speech
- CLPS 1385 Topics in Language Acquisition: Language Acquisition and Cognitive Development
- CLPS 1389 Discourse Processing
- CLPS 1500 Ecological Approach to Perception and Action
- CLPS 1510 Psychology of Hearing
- CLPS 1520 Computational Vision
- CLPS 1530 3D Shape Perception
- CLPS 1590 Visualizing Vision
- CLPS 1610 Cognitive Development
- CLPS 1611 Cognitive Development in Infancy
- CLPS 1650 Child Language Acquisition
- CLPS 1730 Psychology in Business and Economics
- CLPS 1800 Language Processing
- CLPS 1810 Syntactic Theory and Syntactic Processing
- NEUR 1930N Region of Interest: An In-Depth Analysis of One Brain Area
- NEUR 1930F Brain Interfaces for Humans
- NEUR 1930G Disease, Mechanism, Therapy: Harnessing Basic Biology for Therapeutic Development

**Primarily Computational/Modeling:**
- Students are advised to take APMA 0330 (Methods of Applied Analysis I) and APMA 0340 (Methods of Applied Analysis II) as their two supporting science courses. Note that MATH 0100 is a prerequisite for these courses. See CLPS listings (above) for other computational/modeling courses. See CLPS Topics listings for other computational/modeling courses.

- APMA 1360 Topics in Chaotic Dynamics
- CLPS 1211 Human and Machine Learning
- CLPS 1291 Computational Cognitive Science
- CLPS 1470 Mechanisms of Motivated Decision Making
- CLPS 1492 Computational Cognitive Neuroscience
- CLPS 1520 Computational Vision
- CSCI 1410 Applied Artificial Intelligence
- CSCI 1430 Introduction to Computer Vision
- CSCI 1460 Introduction to Computational Linguistics
- CSCI 1480 Building Intelligent Robots
- CSCI 1950A Computational Modeling and Algorithmic Thinking
- ENGN 1220 Neuroengineering
- ENGN 1610 Image Understanding
- NEUR 1680 Computational Neuroscience

One senior seminar course CLPS 1900 or an independent research course.

Total Credits: 16

**Honors**

Students who would like to pursue a degree with honors are normally expected to have half of their grades as A (or equivalent) within the concentration and are required to satisfactorily complete a written thesis and an oral presentation.

**Cognitive Science**

The field of Cognitive Science uses scientific methods of experimentation, computational modeling, and brain imaging to study mental abilities such as perception, action, memory, cognition, speech, and language, as well as the development and evolution of those processes. Students must become knowledgeable in four areas of emphasis: perception, cognition, language, and cognitive neuroscience, as well as a set of methods relevant to Cognitive Science research. Students then create their own focus area of study, potentially integrating coursework from the Cognitive, Linguistic, and Psychological Sciences department with a diverse subset of fields including Anthropology, Applied Math, Education, Neuroscience, and Philosophy. The A.B. program is primarily for students interested in studying human mental processes and acquiring a research orientation to the study of the mind. The Sc.B. program is designed for students who wish to develop a stronger background in Cognitive Science and requires students to engage in a specific research project in the focus area of their choosing. We recommend that prospective concentrators register for one of the gateway courses and at least one other core course in their first or second year.

**I. Standard program for the A.B. degree: 13 courses**

**Gateway**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0020</td>
<td>Approaches to the Mind: Introduction to Cognitive Science (or alternative, with permission of Concentration Advisor)</td>
</tr>
</tbody>
</table>

**Required core courses**

**CORE IN COGNITION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0200</td>
<td>Human Cognition</td>
</tr>
</tbody>
</table>

**CORE IN LINGUISTICS**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0030</td>
<td>Introduction to Linguistic Theory</td>
</tr>
</tbody>
</table>

**CORE IN PERCEPTION**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0500</td>
<td>Perception and Mind</td>
</tr>
</tbody>
</table>

Select one of the following:

**CORE IN COGNITIVE NEUROSCIENCE**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>NEUR 0010</td>
<td>The Brain: An Introduction to Neuroscience</td>
</tr>
<tr>
<td>CLPS 0040</td>
<td>Mind and Brain: Introduction to Cognitive Neuroscience</td>
</tr>
</tbody>
</table>

**Required courses in skills and methodology**

One Experimental Laboratory such as:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1090</td>
<td>Research Methods in Psychology</td>
</tr>
<tr>
<td>CLPS 1190</td>
<td>Techniques in Physiological Psychology</td>
</tr>
<tr>
<td>CLPS 1290</td>
<td>Laboratory in Cognitive Processes</td>
</tr>
<tr>
<td>CLPS 1490</td>
<td>Functional Magnetic Resonance Imaging: Theory and Practice</td>
</tr>
<tr>
<td>CLPS 1590</td>
<td>Visualizing Vision</td>
</tr>
<tr>
<td>CLPS 1690</td>
<td>Laboratory in Developmental Psychology</td>
</tr>
<tr>
<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics</td>
</tr>
</tbody>
</table>

One Basic Computation Course such as:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1291</td>
<td>Computational Cognitive Science</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
II. Standard program for the Sc.B. degree: 18 Courses

**Gateway:**
- CLPS 0200 Approaches to the Mind: Introduction to Cognitive Science (or alternative, with permission of the Concentration Advisor) 1

**Require Core Courses:**
- **CORE IN COGNITION**
  - CLPS 0200 Human Cognition 1
- **CORE IN LINGUISTICS**
  - CLPS 0030 Introduction to Linguistic Theory 1
- **CORE IN PERCEPTION**
  - CLPS 0500 Perception and Mind 1
  - Select one of the following: 1
    - CORE IN COGNITIVE NEUROSCIENCE
      - NEUR 0020 The Brain: An Introduction to Neuroscience
      - CLPS 0040 Mind and Brain: Introduction to Cognitive Neuroscience

**Required courses in skills and methodology:**
- One Experimental Laboratory course such as: 1
  - CLPS 1900 Introduction to Scientific Computing and Problem Solving
  - CSCI 1260 Introduction to Computer Graphics
  - CSCI 1400 Applied Artificial Intelligence
  - CSCI 1480 Building Intelligent Robots
  - EDUC 1260 Emotion, Cognition, Education
  - EDUC 1270 Adolescent Psychology
  - ENGR 1220 Neuroengineering
  - ENGR 1570 Linear System Analysis
  - ENGR 1580 Communication Systems
  - ENGR 1610 Image Understanding
  - PHIL 1520 Consciousness
  - PHIL 1550 Decision Theory: Foundations and Applications
  - PHIL 1590 Philosophy of Science
  - PHIL 1630 Mathematical Logic
  - PHIL 1690 The Problem of Free Will
  - PHIL 1700 British Empiricists
  - PHIL 1750 Epistemology
  - PHIL 1760 Philosophy of Language
  - PHIL 1770 Philosophy of Mind
  - PHIL 1780 Philosophy of Biology
  - PHIL 1880 Advanced Deductive Logic

**Total Credits:** 13

1 Note: Students cannot use an AP Statistics course in lieu of this requirement. APMA 0650 and SOC 1100 will not fulfill this requirement.

2 In most cases, electives must be at the 1000-level and must show coherence and provide the concentrator with depth in one or more focus areas. Only one course below the 1000-level can be included in this list, and only with permission of the concentration advisor. Students are strongly encouraged to work out their program of electives with the concentration advisor.
Electives

Choose four courses from the following:

ANTH 1800 Sociolinguistics, Discourse and Dialogue
APMA 1360 Topics in Chaotic Dynamics
APMA 1650 Statistical Inference I
APMA 1660 Statistical Inference II
APMA 1670 Statistical Analysis of Time Series
APMA 1680 Nonparametric Statistics
APMA 1690 Computational Probability and Statistics
BIOL 0480 Evolutionary Biology
NEUR 0650 Biology of Hearing
NEUR 1030 Neural Systems
NEUR 1040 Introduction to Neurogenetics
NEUR 1660 Neural Basis of Cognition
NEUR 1680 Computational Neuroscience
CLPS 1100 Animal Cognition
CLPS 1130 Psychology of Timing
CLPS 1200 Thinking
CLPS 1210 Human Memory and Learning
CLPS 1211 Human and Machine Learning
CLPS 1220 Concepts and Categories
CLPS 1240 Reasoning and Problem Solving
CLPS 1241 Causal Reasoning
CLPS 1400 The Neural Bases of Cognition
CLPS 1470 Mechanisms of Motivated Decision Making
CLPS 1500 Ecological Approach to Perception and Action
CLPS 1510 Psychology of Hearing
CLPS 1520 Computational Vision
CLPS 1530 3D Shape Perception
CLPS 1540 Human Factors
CLPS 1600 History and Theories of Child Development (EDUC 1710)
CLPS 1610 Cognitive Development
CLPS 1611 Cognitive Development in Infancy
CLPS 1620 Developmental Cognitive Neuroscience
CLPS 1621 The Developing Brain
CLPS 1630 Perceptual Development
CLPS 1650 Child Language Acquisition
CLPS 1730 Psychology in Business and Economics
CLPS 1800 Language Processing
CLPS 1810 Syntactic Theory and Syntactic Processing
CLPS 1820 Language and the Brain
CLPS 1821 Neurolinguistic Theory and Language Processing
CLPS 1970 Directed Reading in Cognitive, Linguistic and Psychological Sciences

MOST TOPICS IN COURSES IN CLPS (See Concentration Advisor for details)

CSCI 0220 Introduction to Discrete Structures and Probability
CSCI 0510 Models of Computation
CSCI 1230 Introduction to Computer Graphics
CSCI 1410 Applied Artificial Intelligence
CSCI 1480 Building Intelligent Robots

EDUC 1260 Emotion, Cognition, Education
EDUC 1270 Adolescent Psychology
ENGN 1220 Neuroengineering
ENGN 1570 Linear System Analysis
ENGN 1580 Communication Systems
ENGN 1610 Image Understanding
PHIL 1520 Consciousness
PHIL 1550 Decision Theory: Foundations and Applications
PHIL 1590 Philosophy of Science
PHIL 1630 Mathematical Logic
PHIL 1690 The Problem of Free Will
PHIL 1700 British Empiricists
PHIL 1750 Epistemology
PHIL 1760 Philosophy of Language
PHIL 1770 Philosophy of Mind
PHIL 1780 Philosophy of Biology
PHIL 1880 Advanced Deductive Logic

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
program is designed to provide the flexibility for each student to design a program that will meet her/his needs and interests.

The Sc.B. program is designed for students who wish to bring a stronger background in general science and a research orientation to their study of cognitive science. Sc.B. candidates must also acquire first-hand experience in doing cognitive science research through an independent study project.

**Community Health**

Community Health is an interdisciplinary concentration through which students examine a variety of issues, including population health and 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 requirements listed below are specific to the AB Community Health concentrators in the class of 2015 and earlier. Students in the class of 2016 and beyond, please visit http://bulletin.brown.edu/academic/abmph-required-courses for a list of those requirements.

**Required Courses:**

- **PHP 0310** Health Care in the United States
  - This course should be taken as a freshman or sophomore.
- **PHP 0320** Introduction to Public Health
  - This course should be taken as a freshman or sophomore.
- **PHP 1320** Survey Research in Health Care
  - This requirement should be fulfilled by the end of the junior year.
- **PHP 1910** Community Health Senior Seminar
  - This requirement should be taken during the senior year.

**Environmental Health and Policy Electives (Students must select one of the following):**

- **PHP 1700** Current Topics in Environmental Health
- **BIOL 1820** Environmental Health and Disease
- **ENVS 0410** Environmental Stewardship
- **ENVS 1410** Environmental Law and Policy
- **ENVS 1710** Environmental Health and Policy
- **ENVS 1720** Environmental Justice: The Science and Political Economy of Environmental Health and Social Justice
- **ETHN 1890J** Native American Environmental Health Movements

**U.S. Health Care Organization and Policy Electives (Students must select one of the following):**

- **PHP 1520** Emergency Medical Systems: An Anatomy of Critical Performance
- **PHP 1530** Case Studies in Public Health: The Role of Governments, Communities and Professions
- **ECON 1360** Health Economics
- **SOC 1315** Macro-Organizational Theory: Organizations in Social Context
- **SOC 1540** Human Needs and Social Services
- **SOC 1550** Sociology of Medicine

**Global Health Electives (Students must select one of the following courses):**

- **PHP 1070** The Burden of Disease in Developing Countries

**Social and Behavioral Science for Prevention Electives (Students must select one of the following):**

- **PHP 1100** Comparative Health Care Systems
- **PHP 1500** Global Health Nutrition
- **ANTH 0300** Culture and Health
- **ANTH 1020** AIDS in Global Perspective
- **ANTH 1310** International Health: Anthropological Perspectives
- **HMAN 1970G** International Perspectives on NGOs, Public Health, and Health Care Inequalities

**Statistics Electives (Students must select one of the following):**

- **APMA 0650** Essential Statistics
- **BIOL 0495** Statistical Analysis of Biological Data
- **CLPS 0900** Quantitative Methods in Psychology
- **ECON 1620** Introduction to Econometrics
- **ECON 1630** Econometrics I
- **ENVS 1100** Statistical Methods for the Natural and Social Environmental Sciences
- **MATH 1610** Probability
- **POLS 1600** Political Research Methods
- **SOC 1100** Introductory Statistics for Social Research

**Approved Electives (Students must select two electives):**

The two additional electives may be selected from the approved courses in four areas listed above (Environmental Health & Policy; US Health Organization & Policy; Global Health; Social & Behavioral Science for Prevention) or the approved general electives listed below.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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, Introduction to the Theory of Literature.
- TEN advanced literature courses (generally 1000-level courses), including Comparative Literature 1210 and:
  a. At least TWO courses in the literature of each of your languages, and the remainder drawn chiefly from among the offerings of Comparative Literature and English, and other national literature departments.
  b. ONE COURSE chiefly devoted to EACH of the three major literary genres: poetry, drama and narrative.
  c. ONE literature course chiefly devoted to EACH OF THREE of the following five historical periods:
     - Antiquity
     - Middle Ages
     - Renaissance/Early Modern
     - Enlightenment
     - Modern. Please note that the 19th, 20th, and 21st centuries count as one period, the Modern Period.

**Track 2: Concentration in Comparative Literature with three languages**
- Complete prerequisites(s) for taking 1000-level courses in your two languages by Semester V (students working in non-European languages may be allowed more latitude; be sure to consult a concentration advisor about constructing an individualized plan).
- Complete the same requirement for your third language before Semester VII (the above proviso for students working in non-European languages also holds here).
- Comparative Literature 1210, Introduction to the Theory of Literature.
- TEN advanced literature courses (generally 1000-level courses), including Comparative Literature 1210 and:
  a. At least TWO courses in the literature of each of your languages, and the remainder drawn chiefly from among the offerings of Comparative Literature and English, and other national literature departments.
  b. ONE COURSE chiefly devoted to EACH of the three major literary genres: poetry, drama and narrative.
  c. ONE literature course chiefly devoted to EACH OF THREE of the following five historical periods:
     - Antiquity
     - Middle Ages
     - Renaissance/Early Modern
     - Enlightenment
     - Modern. Please note that the 19th, 20th, and 21st centuries count as one period, the Modern Period.

**Track 3: Concentration in Literary Translation**
- Complete prerequisites(s) for taking 1000-level courses in your two languages by Semester V (students working in non-European languages may be allowed more latitude; be sure to consult a concentration advisor about constructing an individualized plan).
- Comparative Literature 1210, Introduction to the Theory of Literature.
- Comparative Literature 1710 (Comparative Literature 2720 strongly urged).
- ONE course or MORE in Linguistics, drawn from among these courses: Cognitive, Linguistic and Psychological Sciences 0410, Anthropology 0800, English 1210, Hispanic Studies 1210 or an acceptable substitute.
- FIVE or SIX advanced literature courses (generally 1000-level courses), including Comparative Literature 1210 and:
  a. At least TWO courses in the literature of each of your languages, and the remainder drawn chiefly from among the offerings of Comparative Literature and English, and other national literature departments.
  b. ONE COURSE chiefly devoted to EACH of the three major literary genres: poetry, drama and narrative.

---

**Undergraduate Concentrations**

<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 1680I</td>
<td>Pathology to Power: Disability, Health and Community</td>
</tr>
<tr>
<td>PHP 1680J</td>
<td>The Race To Inner Space: Conflating Science, Politics, and Economics To Promote Brain Health</td>
</tr>
<tr>
<td>PHP 1680K</td>
<td>Introduction to Conducting Clinical Research</td>
</tr>
<tr>
<td>PHP 1680M</td>
<td>The Epidemiology of Violence and its Consequences</td>
</tr>
<tr>
<td>ANTH 124Z</td>
<td>Bioethics and Culture</td>
</tr>
<tr>
<td>ANTH 1300</td>
<td>Anthropology of Addictions and Recovery</td>
</tr>
<tr>
<td>BIOL 0040</td>
<td>Nutrition for Fitness and Physical Activity</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 0475</td>
<td>Conservation Medicine</td>
</tr>
<tr>
<td>BIOL 0860</td>
<td>Diet and Chronic Disease</td>
</tr>
<tr>
<td>BIOL 1920B</td>
<td>Health Inequality in Historical Perspective</td>
</tr>
<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>
</tr>
<tr>
<td>ENV 0490</td>
<td>Environmental Science in a Changing World</td>
</tr>
<tr>
<td>GNSS 1960B</td>
<td>Health and Healing in American History</td>
</tr>
<tr>
<td>PPAI 1700J</td>
<td>GIS and Public Policy</td>
</tr>
<tr>
<td>PPAI 1700K</td>
<td>Health Policy Challenges</td>
</tr>
<tr>
<td>PPAI 1700V</td>
<td>Nonprofit Organizations</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>
</tr>
<tr>
<td>SOC 0300K</td>
<td>Inequalities and Health</td>
</tr>
<tr>
<td>SOC 1250</td>
<td>Perceptions of Mental Illness</td>
</tr>
<tr>
<td>SOC 1410</td>
<td>Aging and the Quality of Life</td>
</tr>
<tr>
<td>SOC 1870D</td>
<td>Aging and Social Policy</td>
</tr>
<tr>
<td>SOC 1871N</td>
<td>Military Health: The Quest for Healthy Violence</td>
</tr>
</tbody>
</table>

**Honors.** An Honors track is available for students who qualify. Honors track students are also required to enroll in PHP 1980 in both semesters of their senior year to conduct research and write the honors thesis.

Inquiries: Academic Program Manager, Liz Malone (Elizabeth_Malone@brown.edu).
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.
   • 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).

For additional information, please visit the Comparative Literature website (http://www.brown.edu/Departments/Comparative_Literature/) or see the Director of Undergraduate Studies, Professor Stephanie Merrim.

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. The program educates the student liberally in these fields, building on a foundation of coursework that may then focus via several possible tracks. The program offers four tracks: computational genomics, biological sciences, molecular modeling and applied mathematics and statistical genomics. The program requires a senior capstone experience that pairs students and faculty in creative research collaborations.

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

<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>BIOL 0470</td>
<td>Genetics (prerequisite BIOL 0200 or equivalent)</td>
</tr>
<tr>
<td>BIOL 0280</td>
<td>Introductory Biochemistry</td>
</tr>
<tr>
<td>or BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>CSCI 0150</td>
<td>Introduction to Object-Oriented Programming and Computer Science (no prerequisite)</td>
</tr>
<tr>
<td>CSCI 0160</td>
<td>Introduction to Algorithms and Data Structures (prerequisite CSCI 0150)</td>
</tr>
<tr>
<td>or CSCI 0170</td>
<td>Computer Science: An Integrated Introduction</td>
</tr>
<tr>
<td>CSCI 0180</td>
<td>Computer Science: An Integrated Introduction (prerequisite CSCI 0170)</td>
</tr>
<tr>
<td>or CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
</tr>
<tr>
<td>CSCI 0220</td>
<td>Introduction to Discrete Structures and Probability</td>
</tr>
<tr>
<td>APMA 1650</td>
<td>Statistical Inference I</td>
</tr>
</tbody>
</table>

Computational Biology Core Course Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1810</td>
<td>Computational Molecular Biology (prerequisites: (CSCI 0160, or CSCI 0180, or CSCI 0190) and CSCI 0220)</td>
</tr>
<tr>
<td>APMA 1080</td>
<td>Inference in Genomics and Molecular Biology</td>
</tr>
</tbody>
</table>

Capstone Experience

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1950/1960</td>
<td>Directed Research/Independent Study</td>
</tr>
</tbody>
</table>

Six courses in one of the following four tracks: 6

Computational Genomics Track: 2

Three of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1230</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>CSCI 1270</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>CSCI 1410</td>
<td>Applied Artificial Intelligence</td>
</tr>
<tr>
<td>CSCI 1550</td>
<td>Probability and Computing: Randomized Algorithms and Probabilistic Analysis</td>
</tr>
<tr>
<td>CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
</tr>
</tbody>
</table>

Biological Sciences track 3

At least four courses comprising a coherent theme in one of the following areas: Biochemistry, Ecology, Evolution, or Neurobiology. Select two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1820</td>
<td>Algorithmic Foundations of Computational Biology</td>
</tr>
<tr>
<td>PHP 2620</td>
<td>Statistical Methods in Bioinformatics, I</td>
</tr>
<tr>
<td>APMA 1660</td>
<td>Statistical Inference II</td>
</tr>
<tr>
<td>BIOL 1430</td>
<td>The Computational Theory of Molecular Evolution</td>
</tr>
</tbody>
</table>

Molecular Modeling Track: 4

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1220</td>
<td>Computational Tools in Biochemistry and Chemical Biology</td>
</tr>
</tbody>
</table>

At least three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1150</td>
<td>Physical Chemistry: Thermodynamics and Statistical Mechanics</td>
</tr>
<tr>
<td>CHEM 1230</td>
<td>Chemical Biology</td>
</tr>
<tr>
<td>or CHEM 1240</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>BIOL 0530</td>
<td>Principles of Immunology</td>
</tr>
<tr>
<td>BIOL 1260</td>
<td>Physiological Pharmacology</td>
</tr>
<tr>
<td>BIOL 1540</td>
<td>Molecular Genetics</td>
</tr>
</tbody>
</table>

Two courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1820</td>
<td>Algorithmic Foundations of Computational Biology</td>
</tr>
<tr>
<td>PHP 2620</td>
<td>Statistical Methods in Bioinformatics, I</td>
</tr>
<tr>
<td>APMA 1660</td>
<td>Statistical Inference II</td>
</tr>
<tr>
<td>BIOL 1430</td>
<td>The Computational Theory of Molecular Evolution</td>
</tr>
</tbody>
</table>

Applied Mathematics and Statistical Genomics Track: 5

At least three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 1660</td>
<td>Statistical Inference II</td>
</tr>
<tr>
<td>APMA 1690</td>
<td>Computational Probability and Statistics</td>
</tr>
<tr>
<td>CSCI 1410</td>
<td>Applied Artificial Intelligence</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
</tbody>
</table>

At least three of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1430</td>
<td>The Computational Theory of Molecular Evolution</td>
</tr>
<tr>
<td>CSCI 1820</td>
<td>Algorithmic Foundations of Computational Biology</td>
</tr>
<tr>
<td>PHP 2620</td>
<td>Statistical Methods in Bioinformatics, I</td>
</tr>
</tbody>
</table>

Total Credits 19
Students enrolled in the computational biology concentration will complete a research project in their senior year under faculty supervision. The themes of such projects evolve with the field and the technology, but should represent a synthesis of the various specialties of the program. A minimum of one semester of independent study is required, although many students may conduct a full year of independent study.

This track is designed for students whose interests lie in the development of algorithms and high-quality software (tools and systems) for biological applications.

This track is designed for students whose interests lean more towards biological questions, distributed systems, graphics, mobile computing, networks, operating systems, programming languages, robotics and security, to novel areas including games and scientific visualization.

This track is designed for students who wish to gain competence in extracting information from genomic and molecular biology data, and modeling the dynamics of these systems. Substitution of more advanced courses with consent of advisor is permitted.

This track is designed for students whose interests focus on extracting information from genomic and molecular biology data, and modeling the dynamics of these systems.

**Honors:**
To be a candidate for honors, a student must have a course record judged to be excellent by the concentration advisor and must complete a thesis judged to be outstanding by the faculty member supervising the work.

**Computer Science**
Computer science is now a critical tool for pursuing an ever-broadening range of topics, from outer space to the workings of the human mind. In most areas of science and in many liberal arts fields, cutting-edge work depends increasingly on computational approaches. The undergraduate program at Brown is designed to combine breadth in practical and theoretical computer science with depth in specialized areas. These areas range from traditional topics, such as analysis of algorithms, artificial intelligence, databases, distributed systems, graphics, mobile computing, networks, operating systems, programming languages, robotics and security, to novel areas including games and scientific visualization.

**Requirements for the Standard Track of the Sc.B. degree**

**Prerequisites (1 or 2 courses)**
Two semesters of Calculus, for example:
- MATH 0090 Introductory Calculus, Part I
- MATH 0100 and Introductory Calculus, Part II
- MATH 0170 Advanced Placement Calculus

**Concentration Requirements (15 courses)**

**Core-Computer Science**:
Select one of the following introductory course Series:

<table>
<thead>
<tr>
<th>Series A</th>
<th>Course</th>
<th>Title</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>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series B</th>
<th>Course</th>
<th>Title</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>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series C</th>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 0190</td>
<td>Accelerated Introduction to Computer Science</td>
<td></td>
</tr>
</tbody>
</table>

Select three of the following intermediate-level courses, one of which must be math-oriented and one systems-oriented:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</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>or CSCI 0310</td>
<td>Introduction to Computer Systems</td>
</tr>
<tr>
<td>CSCI 0510</td>
<td>Models of Computation (math)</td>
</tr>
<tr>
<td>CSCI 1450</td>
<td>Introduction to Probability and Computing</td>
</tr>
</tbody>
</table>

**Additional Computer Science Courses:**

Select one theoretical computer science course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1490</td>
<td>Introduction to Combinatorial Optimization</td>
</tr>
<tr>
<td>CSCI 1510</td>
<td>Introduction to Cryptography and Computer Security</td>
</tr>
<tr>
<td>CSCI 1550</td>
<td>Probability and Computing: Randomized Algorithms and Probabilistic Analysis</td>
</tr>
<tr>
<td>CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
</tr>
<tr>
<td>CSCI 1590</td>
<td>Introduction to Computational Complexity</td>
</tr>
<tr>
<td>CSCI 1760</td>
<td>Introduction to Multiprocessor Synchronization</td>
</tr>
<tr>
<td>CSCI 1950H</td>
<td>Computational Topology</td>
</tr>
<tr>
<td>CSCI 1950J</td>
<td>Introduction to Computational Geometry</td>
</tr>
<tr>
<td>CSCI 1920</td>
<td>Algorithmic Foundations of Computational Biology</td>
</tr>
</tbody>
</table>

Select one artificial intelligence course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1410</td>
<td>Applied Artificial Intelligence</td>
</tr>
<tr>
<td>CSCI 1420</td>
<td>Introduction to Machine Learning</td>
</tr>
<tr>
<td>CSCI 1430</td>
<td>Introduction to Computer Vision</td>
</tr>
<tr>
<td>CSCI 1450</td>
<td>Introduction to Probability and Computing</td>
</tr>
<tr>
<td>CSCI 1460</td>
<td>Introduction to Computational Linguistics</td>
</tr>
<tr>
<td>CSCI 1480</td>
<td>Building Intelligent Robots</td>
</tr>
<tr>
<td>CSCI 1490</td>
<td>Introduction to Combinatorial Optimization</td>
</tr>
<tr>
<td>CSCI 1580</td>
<td>Information Retrieval and Web Search</td>
</tr>
</tbody>
</table>

Select one computer science systems course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSCI 1230</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>CSCI 1260</td>
<td>Introductory Compiler Construction</td>
</tr>
<tr>
<td>CSCI 1270</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>CSCI 1290</td>
<td>Computational Photography</td>
</tr>
<tr>
<td>CSCI 1310</td>
<td>Fundamentals of Computer Systems</td>
</tr>
<tr>
<td>CSCI 1320</td>
<td>Creating Modern Web Applications</td>
</tr>
<tr>
<td>CSCI 1340</td>
<td>Innovating Game Development</td>
</tr>
<tr>
<td>CSCI 1380</td>
<td>Distributed Computer Systems</td>
</tr>
<tr>
<td>CSCI 1600</td>
<td>Introduction to Embedded and Real-Time Software</td>
</tr>
<tr>
<td>CSCI 1610</td>
<td>Building High-Performance Servers</td>
</tr>
<tr>
<td>CSCI 1660</td>
<td>Introduction to Computer Systems Security</td>
</tr>
<tr>
<td>CSCI 1670</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CSCI 1680</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>CSCI 1730</td>
<td>Introduction to Programming Languages</td>
</tr>
<tr>
<td>CSCI 1900</td>
<td>Software System Design</td>
</tr>
</tbody>
</table>

Four additional advanced computer science courses

A capstone course

Math: Two semesters of Mathematics or Applied Mathematics beyond MATH 0100/0170. One of these courses must be a linear algebra course

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
<tr>
<td>CSCI 0530</td>
<td>Directions: The Matrix in Computer Science</td>
</tr>
</tbody>
</table>

**Total Credits**

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Requirements for the Professional Track of the Sc.B. degree.

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member. On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student's concentration advisor:

- Which courses were put to use in your summer's work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Requirements for the Standard Track of the A.B. degree

Prerequisites

Two semesters of Calculus, for example:

- MATH 0090 Introduction Calculus, Part I
- MATH 0100 and Introductory Calculus, Part II
- MATH 0170 Advanced Placement Calculus

Concentration Requirements (9 courses)

Core Computer Science:

Select one of the following series:

**Series A**

- CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
- CSCI 0160 Introduction to Algorithms and Data Structures

**Series B**

**Series C**

- CSCI 0190 Accelerated Introduction to Computer Science
- and an additional CSCI course not otherwise used to satisfy a concentration requirement. (This course may be CSCI 0180, an intermediate-level CSCI course, or a 1000 level course)

Three intermediate courses from the following, of which one must be math-oriented and one must be systems-oriented:

- CSCI 0220 Introduction to Discrete Structures and Probability (math)
- CSCI 0320 Introduction to Software Engineering (systems)
- CSCI 0330 Introduction to Computer Systems (systems)
- or CSCI 0310 Introduction to Computer Systems
- CSCI 0510 Models of Computation (math)
- CSCI 0530 Directions: The Matrix in Computer Science (math)
- CSCI 1450 Introduction to Probability and Computing

Four additional courses in computer science or related areas are required.

Total Credits

- 9

Requirements for the Professional Track of the A.B. degree.

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member. On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student's concentration advisor:

- Which courses were put to use in your summer's work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
- What did you learn from the experience that probably could not have been picked up from course work?
- Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
- Would you recommend your summer experience to other Brown students? Explain.

Computer Science-Economics

The joint Computer Science-Economics concentration exposes students to the theoretical and practical connections between computer science and economics. It prepares students for professional careers that incorporate...
aspects of economics and computer technology and for academic careers conducting research in areas that emphasize the overlap between the two fields. Concentrators may choose to pursue either the A.B. or the Sc.B. degree. While the A.B. degree allows students to explore the two disciplines by taking advanced courses in both departments, its smaller number of required courses is compatible with a liberal education. The Sc.B. degree achieves greater depth in both computer science and economics by requiring more courses, and it offers students the opportunity to creatively integrate both disciplines through a design requirement. In addition to courses in economics, computer science, and applied mathematics, all concentrators must fulfill the Computer Science department’s writing requirement by passing a course that involves significant expository writing.

**Standard Program for the Sc.B. degree.**

**Prerequisites (3 courses):**

- MATH 0100 Introductory Calculus, Part II
- MATH 0520 Linear Algebra
- or MATH 0540 Honors Linear Algebra
- or CSCI 0530 Directions: The Matrix in Computer Science
- ECON 0110 Principles of Economics

**Required Courses (17 courses):**

Select one of the following Series: 2

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

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.

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)
- or CSCI 0310
- CSCI 0510 Models of Computation (math)

A pair of CS courses with a coherent theme. 1

A pair of courses that is either at the 1000-level or 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) 2
- ECON 1210 Intermediate Macroeconomics 1
- ECON 1630 Econometrics I 1

Three courses from the "mathematical economics" group: 3

- ECON 1170 Welfare Economics and Social Choice Theory
- ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
- ECON 1465 Market Design: Theory and Applications
- ECON 1470 Bargaining Theory and Applications
- ECON 1640 Econometrics II
- ECON 1650 Financial Econometrics
- ECON 1750 Investments II

- ECON 1759 Data, Statistics, Finance
- ECON 1810 Economics and Psychology
- ECON 1820 Behavioral Economics
- ECON 1850 Theory of Economic Growth
- ECON 1860 The Theory of General Equilibrium
- ECON 1870 Game Theory and Applications to Economics

Two additional 1000-level Economics courses 2

- Capstone Course in either Computer Science or Economics 3

**Total Credits** 17

1 A list of pre-approved pairs may be found at the approved-pairs web page (http://cs.brown.edu/grad/concentrations/approvedpairs.html). You are not restricted to pairs on this list, but any pair not on the list must be approved by the CS director of undergraduate studies. CSCI 1450 may not be used to satisfy this requirement.

2 Or ECON 1110, with permission.

3 A one-semester course, normally taken in the student's last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic (preferably at the intersection of computer science and economics) in depth, to produce a culminating artifact such as a paper or software project.

**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 Directions: The Matrix in Computer Science
- ECON 0110 Principles of Economics

**Required Courses (13 courses):**

Select one of the following series: 2

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

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.

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)
- or CSCI 0310
- CSCI 0510 Models of Computation (math)

A pair of CS courses with a coherent theme. 1

An additional CS course that is either at the 1000-level or 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) 2
- ECON 1210 Intermediate Macroeconomics 1
- ECON 1630 Econometrics I 1

Three courses from the "mathematical economics" group: 3

- ECON 1170 Welfare Economics and Social Choice Theory
- ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
- ECON 1465 Market Design: Theory and Applications
- ECON 1470 Bargaining Theory and Applications
- ECON 1640 Econometrics II
- ECON 1650 Financial Econometrics
- ECON 1750 Investments II

- ECON 1759 Data, Statistics, Finance
- ECON 1810 Economics and Psychology
- ECON 1820 Behavioral Economics
- ECON 1850 Theory of Economic Growth
- ECON 1860 The Theory of General Equilibrium
- ECON 1870 Game Theory and Applications to Economics

Two additional 1000-level Economics courses 2

- Capstone Course in either Computer Science or Economics 3

**Total Credits** 17

1 A list of pre-approved pairs may be found at the approved-pairs web page (http://cs.brown.edu/grad/concentrations/approvedpairs.html). You are not restricted to pairs on this list, but any pair not on the list must be approved by the CS director of undergraduate studies. CSCI 1450 may not be used to satisfy this requirement.

2 Or ECON 1110, with permission.

3 A one-semester course, normally taken in the student's last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic (preferably at the intersection of computer science and economics) in depth, to produce a culminating artifact such as a paper or software project.

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

Development Studies examines the interaction of social, economic and political development in contemporary societies and is therefore, necessarily an interdisciplinary enterprise. Development Studies concentrators develop the skills and knowledge best suited to their chosen geographical area of interest, emphasizing what is historically and culturally distinctive about the region and how its development reflects general processes of socio-economic change. While the concentration produces graduates with expertise in the study of development, most concentrators combine their course work with first-hand experience in the developing world. Course selection should balance analytic training with local and historical knowledge. Therefore, courses must be taken in at least three social science disciplines to achieve an interdisciplinary approach to these processes of change.

### Requirements (Graduating Before 2016)

Concentrators in Development Studies must complete a total of 11 courses based on the following guidelines. Any course may be substituted by a similar course approved by the Deputy Director.

#### CORE

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEVL 1000/</td>
<td>Sophomore Seminar in Sociology of Development</td>
</tr>
<tr>
<td>HMAN 1970G</td>
<td>International Perspectives on NGOs, Public Health, and Health Care Inequalities</td>
</tr>
</tbody>
</table>

#### Disciplinary Courses

The courses must focus on different regions. Substitutions approved by the Deputy Director.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 1229</td>
<td>Democracy and Difference: Political Anthropology, Citizenship and Multiculturalism</td>
</tr>
<tr>
<td>ANTH 1310</td>
<td>International Health: Anthropological Perspectives</td>
</tr>
<tr>
<td>ANTH 1320</td>
<td>Anthropology and International Development: Ethnographic Perspectives on Poverty and Progress</td>
</tr>
<tr>
<td>DEVL 1280</td>
<td>Media, Markets, and States in Developing Countries</td>
</tr>
<tr>
<td>DEVL 1500</td>
<td>Economic Development and Social Change</td>
</tr>
<tr>
<td>HMAN 1970G</td>
<td>International Perspectives on NGOs, Public Health, and Health Care Inequalities</td>
</tr>
<tr>
<td>HMAN 1970G</td>
<td>International Perspectives on NGOs, Public Health, and Health Care Inequalities</td>
</tr>
<tr>
<td>HIST 1620</td>
<td>Colonial Latin America</td>
</tr>
</tbody>
</table>

#### Elective Courses

Any advanced senior seminar at the 1800-level or above, and related to development. If the course does not focus on the developing world, students may write a paper that expounds a linkage with development.

For example:

- HMAN 1970G: International Perspectives on NGOs, Public Health, and Health Care Inequalities

#### Senior Capstone

- DEVL 1990: Senior Thesis Preparation

Students may complete a conventional senior thesis; a group project (would not qualify for honors); or a multimedia project. Must incorporate language skills.

### Honors

Students who meet stated requirements are eligible to write an honors thesis in their senior year. Students should consult the listed honors requirements of whichever of the two departments their primary thesis advisor belongs to, at the respective departments’ websites.

### Professional Track

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

- Which courses were put to use in your summer’s work? Which topics, in particular, were important?
- In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
- 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.

### Language

Advanced competency (600 level) or above.

### Total Credits

<table>
<thead>
<tr>
<th>Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
</tr>
</tbody>
</table>

1 Or ECON 1110, with permission.

---

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Since study abroad is a potentially important part of the concentration, the possibility of spending part or all of the junior year in a developing world country should be discussed with concentration advisors and the Office of International Programs at the earliest possible time.

**Requirements (Class of 2016 +)**

10 Courses + Language + Capstone

**CORE**

All core courses must be taken prior to senior year

Choose TWO from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 1620</td>
<td>Globalization and Social Conflict</td>
</tr>
<tr>
<td>POLS 1240</td>
<td>Politics, Markets and States in Developing Countries</td>
</tr>
<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems</td>
</tr>
</tbody>
</table>

Seminar in Sociology of Development (Pre-requisites: sophomore or junior standing, and prior completion of SOC 1620, POLS 1240, or ANTH 0110)

**DEVL 1000**

Development Economics (ECON 0510 for students with little economics background, 1510 for students with strong economics background or economics double concentrators)

**DEVL 1871D**

Sophomore Seminar in Sociology of Development

**ECON 0510**

Development and the International Economy or ECON 1510 Economic Development

**Research Methods and Design (Junior Year)**

**DEVL 1500**

Methods in Development Research

**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.

**Foreign Language**

Advanced competency (600 level) 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.

### Early Cultures

The Program in Early Cultures is an interdisciplinary concentration that integrates the cultures, religions, and histories of ancient civilizations. Geographically, the “ancient world” includes early China and India, West Asia (Mesopotamia, Iran, Anatolia, and Israel), Egypt, the Mediterranean (especially Greece and Italy), the early Islamic and Byzantine worlds, and the Pre-Columbian Mesoamerican civilizations. Students in Early Cultures gain in-depth knowledge of the history, religions, languages, and literatures of two or more ancient civilizations. In consultation with a concentration advisor, students design their own areas of study. Examples of possible topics include: cultural contacts between Greece and Egypt/ West Asia; animal sacrifice in Greece and Israel; comparative legal studies: Israel, Hatti, and Mesopotamia; gender roles in Rome and Egypt; Wisdom literature in Egypt, Israel, and Mesopotamia; and the historiography of the exact sciences in India and Greece.

Faculty from a variety of academic units (Anthropology, Classics, Comparative Literature, Egyptology, History, History of Art and Architecture, the Joukowsky Institute for Archaeology and the Ancient World, Judaic Studies, Philosophy, Religious Studies) offer courses relevant to Early Cultures.

**Concentration patterns:**

1. Ancient History (standard and honors)
2. Ancient Religions (standard and honors)
3. Languages and Literatures of Greece, Rome, North Africa, pre-Islamic West and South Asia (honors only)

### General Requirements

Each nonhonors concentration will choose to focus on either ancient history or ancient religions and will complete the Concentrators Seminar (ERLY 1000) in both the junior and the senior years, and eight other courses, four in each of two civilizations, or eight in a variety of civilizations.

**Honors Requirements:**

1. Ancient History or Ancient Religions (total of up to 12 courses)
   a. The Concentrators Seminar (ERLY 1000) in both the junior and senior years
   b. Two courses on the history or religions of two civilizations (four courses)
   c. Two courses in one ancient language
   d. Two related courses
   e. The honors thesis (one or two courses)

2. Languages and Literatures of Greece, Rome, North Africa, pre-Islamic West and South Asia (total of up to 12 courses)
   a. Languages and Literatures of Greece, Rome, North Africa, pre-Islamic West and South Asia (total of up to 12 courses)
     i. The Concentrators’ Seminar (two courses)
     ii. Two 1000-level courses requiring knowledge of Greek or Latin; and two courses requiring knowledge of Egyptian, Hebrew, Aramaic, Akkadian, Sanskrit, or Phoenician (Four courses: two of each of two languages)
     iii. Two courses in the literature or culture associated with each of the two languages (For one of these languages, the two courses must be at the advanced level)
     iv. The honors thesis (one or two courses)

b. Languages and Literatures of North Africa and pre-Islamic West, South, or East Asia (total of up to 12 courses)
   a. The Concentrators Seminar (two courses)
   b. Two courses requiring knowledge of two different North African, West or South Asian languages: Egyptian, Hebrew, Aramaic, Akkadian, Phoenician, Sanskrit or Chinese. For one of these languages, the two courses must be at the advanced level. (Four courses: two of each of two languages.)
   c. Two courses in the literature or culture associated with each of the two languages (four courses: two each for two languages).
   d. The honors thesis (one or two courses)

### East Asian Studies

East Asian Studies is a multidisciplinary concentration designed for students wishing to attain reasonable fluency in Chinese, Japanese, or Korean with specialized exposure to selected East Asian subjects. It serves students with two types of interests: those who wish 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 defined to be consistent with successful completion of the Department’s third-year course sequence in Chinese, Japanese, or Korean (0500-0600), or its equivalent. Native speakers of these languages may, for example, demonstrate competency such that language courses may be unnecessary. Department language instructors may also determine that course work completed at one of the language-intensive study abroad programs attended by our undergraduates is comparable to courses offered at Brown.
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 0150 Advanced Beginning Chinese
- CHIN 0250 Advanced Beginning Chinese
- CHIN 0300 Intermediate Chinese
- CHIN 0400 Intermediate Chinese
- CHIN 0500 Advanced Modern Chinese I
- CHIN 0600 Advanced Modern Chinese I

**Japanese**
- JAPN 0100 Basic Japanese
- JAPN 0200 Basic Japanese
- JAPN 0150 Advanced Beginning Japanese
- JAPN 0250 Advanced Beginning Japanese
- JAPN 0300 Intermediate Japanese
- JAPN 0400 Intermediate Japanese
- JAPN 0500 Advanced Japanese I
- JAPN 0600 Advanced Japanese I

**Korean**
- KREA 0100 Korean
- KREA 0200 Korean
- KREA 0300 Intermediate Korean
- KREA 0400 Intermediate Korean
- KREA 0500 Advanced Korean
- KREA 0600 Advanced Korean

**Language Electives (language courses that may be counted for concentration credit)**

**Chinese**
- CHIN 0700 Advanced Modern Chinese II
- CHIN 0800 Advanced Modern Chinese II (either course may be taken for one semester)
- CHIN 0910B Introduction to Classical Chinese
- CHIN 0910C Introduction to Modern Chinese Prose
- CHIN 0920C The Changing Face of China: Advanced Reading in Chinese Media
- CHIN 0920D Business Chinese
- CHIN 1040 Modern Chinese Literature

**Japanese**
- JAPN 0700 Advanced Japanese II
- JAPN 0800 Advanced Japanese II (either course may be taken for one semester)
- JAPN 0910A Classical Japanese
- JAPN 0910B Japanese Cities: Tokyo and Kyoto
- JAPN 0910C Japanese Linguistics
- JAPN 0920A Business Japanese
- JAPN 1010 Readings in Contemporary Japanese Fiction
- JAPN 1310 Japanese Linguistics: Communication and Understanding Utterances

**Korean**
- KREA 0920A Korean Culture and Society
- KREA 0920B Business Korean

**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 requirements in mind.

- At least three of the eight electives must be East Asian Studies (EAST) courses; Chinese (CHIN), Japanese (JAPN), or Korean (KREA) courses at the 1000-level and above may also count toward this requirement.
- At least one of the eight electives must focus on an East Asian country or culture other than those associated with the language the student is using to satisfy the concentration’s language requirement. A concentrator studying Korean, for example, would choose at least one course that focuses on China, Taiwan, or Japan.
- 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 Archeology, Anthropology, Economics, International Relations, and others.

**Sample Electives offered by East Asian Studies**

**EAST 0180** Japan: Nature, Ritual, and the Arts 2
**EAST 0950A** Turning Japanese: Constructing Nation, Race and Culture in Modern Japan (First Year Seminar) 2
**EAST 0950C** Reading China: Texts and Contexts 1
**EAST 1010** From Basho to Banana: Four Centuries of Japanese Literature 2
**EAST 1012** Expanding the Canon: A Survey of 20th Century Japanese Literature 2
**EAST 1070** China Modern: An Introduction to the Literature of Twentieth-Century China 1
**EAST 1100** Korean Culture and Film 3
**EAST 1170** Women’s Literature in Japan and Korea 4
**EAST 1200** Pop, Political and Patrician: Culture in Japan and the Koreas 4
**EAST 1270** China Through the Lens: History, Cinema, and Critical Discourse 1
**EAST 1400** The Floating World: Early Modern Japanese Culture 2
**EAST 1420** The Confucian Mind 4

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>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAST 1950B</td>
<td>Chinese Women, Gender and Feminism from Analytic Geometry and Calculus</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950F</td>
<td>The Karma of Words</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950G</td>
<td>Market Economy, Popular Culture, and Mass Media in Contemporary China</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950H</td>
<td>Translating Japanese: Short Fiction, Poetry, Film and Manga</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950I</td>
<td>Revolution and Culture, East Asia and Beyond</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950O</td>
<td>The Art of Dissent</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950Q</td>
<td>Early Chinese Poetry</td>
<td>1</td>
</tr>
<tr>
<td>EAST 1950X</td>
<td>Queer Japan: Culture, History and Sexuality</td>
<td>1</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.

The completed thesis is evaluated for Honors by the thesis director and by a second reader. In case of a difference of judgment between the two readers, a third opinion may be sought. The awarding of Honors in East Asian Studies will occur only if the Honors Thesis receives a final grade of A. If an A is not received, the student will still receive academic credit for EAST 1930-1940. Students are notified in mid-May whether the Department has recommended the awarding of Honors. Copies of readers’ comments are provided to the student.

All graduating concentrators will present the results of their senior theses in the department's Senior Project Forum. The Forum will usually take place at the end of the spring semester, but may also occur at the end of the fall semester to accommodate mid-year graduates.

Double Concentrations

Students who are interested in developing a double concentration, including East Asian Studies as one of the two concentrations, should bear in mind that normally no more than two courses may be double-counted toward satisfying the course requirements of either of the two concentration programs involved.

Study Abroad

Concentrators are strongly encouraged, but not required, to study in East Asia for one or two semesters during their undergraduate years. Course credits earned abroad are generally transferable to Brown. However, a maximum of three courses taken abroad, of genuine intellectual substance and significantly related to East Asian Studies, may be considered for concentration credit.

Summary of requirements:

- Language study through the level of 0600 or the equivalent of Chinese, Japanese, or Korean
- Eight elective courses
  - At least three of the eight must be East Asian Studies (EAST) courses; Chinese (CHIN), Japanese (JAPN), or Korean (KREA) courses at the 1000-level and above may also count toward this requirement
  - At least one of the eight electives must focus on an East Asian country or culture other than those associated with the language the student is using to satisfy the concentration's language requirement. A concentrator studying Korean, for example, would choose at least one course that focuses on China, Taiwan, or Japan.
  - At least one of the eight must be an advanced research seminar, taken in the senior year.
- EAST 1930 - EAST 1940 (Thesis-writing course) 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 1130), macroeconomics (ECON 1210), and econometrics (ECON 1620) round out the list of foundation courses for the concentration. Economics students must also fulfill a calculus requirement.

The economics department sponsors a number of concentration options. The most popular is the standard economics concentration, described below. Three additional concentration options are administered jointly with other departments and are described separately under their respective titles. They are the concentrations in applied mathematics–economics, in mathematical economics, and in computer science–economics. The first two are especially recommended for students interested in graduate study in economics.

The department offers many of the required courses in an interdepartmental concentration called Business, Entrepreneurship and Organizations (BEO). BEO is jointly run by the departments of economics and sociology, and the school of engineering. BEO has three possible "tracks," of which the business economics track is most closely related to economics. Please contact the BEO administrator for more details, including information about advising in that concentration.

Standard Economics Concentration (through the Class of 2015)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0060</td>
<td>Analytic Geometry and Calculus</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0070</td>
<td>Calculus with Applications to Social Science</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A higher-level math course.</td>
<td></td>
</tr>
</tbody>
</table>

Economics Course Requirements:

- ECON 0110 Principles of Economics
- ECON 1110 Intermediate Microeconomics
- ECON 1130 Intermediate Microeconomics (Mathematical)
- ECON 1210 Intermediate Macroeconomics
- ECON 1620 Introduction to Econometrics

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

- **MATH 0100** Introductory Calculus, Part II, or a higher-level math course.

### Economics Course Requirements:

- **ECON 0110** Principles of Economics ³
- **ECON 1010** Intermediate Microeconomics ¹
- **ECON 1120** Intermediate Macroeconomics (Mathematical) ¹
- **ECON 1210** Introduction to Econometrics ¹
- **ECON 1620** Applied Research Methods for Economists ¹
- **ECON 1630** Econometrics I

At least five additional 1000-level Economics courses. ²

**Total Credits:** 11

1. Note that certain advanced economics courses may impose additional mathematical prerequisites. The standard mathematics requirement may be met through Advanced Placement tests, but "placing into" a higher level mathematics course than MATH 0090, 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 1940 do not count for concentration credit.

3. If placing out of ECON 0110 with AP or IB test scores, one must take at least five additional 1000-level Economics courses (6 instead of 5).

### Education Studies

Education Studies takes a multidisciplinary, liberal arts approach to the field of education while focusing on the study of human learning and development, the history of education, teaching, school reform, and education policy. Concentrators choose an area of emphasis, either History/Policy (advised by Luther Spoehr) or Human Development (advised by Jin Li). History/Policy provides the historical underpinnings and intellectual skills for students to think critically about education issues in a number of settings. In the Human Development area, students learn about psychological, social, and cultural processes in a variety of contexts, including schools, families, peer groups, and neighborhoods, particularly in urban settings. Additionally, the Department offers teacher certification programs in elementary and secondary education.

Education Studies concentrators design a program that includes ten courses, of which at least eight are taken in the Education Department at Brown University. Within Education Studies, concentrators choose one of the two tracks, each designed to enable students to develop critical and creative skills for addressing issues involving children, schools, and education.

### Course Requirements:

- **EDUC 1100** Introduction to Qualitative Research Methods ¹
- **EDUC 1110** Introductory Statistics for Education Research and Policy Analysis

At least five Education courses in the chosen area of emphasis. ⁵

At least two Education courses outside the chosen area of emphasis. ²

**Total Credits:** 10

### Honors

Concentrators seeking to graduate with honors must meet all requirements for the concentration, including a grade-point average established by the Department, and state their plans in writing by the end of their sixth semester. Finally, they must successfully complete EDUC 1990 -EDUC 1991 (Research and Writing in Education) in which they write a thesis (usually 60-70 pages) under the guidance of a thesis advisor.

### Undergraduate Teacher Education Program

Note: The Undergraduate Teacher Education Program is not a concentration. It consists of a series of courses which will prepare students for secondary teacher certification.

The Department of Education, in cooperation with other departments, offers a program of study in teacher education leading to certification in secondary school teaching: the Undergraduate Teacher Education Program (UTEPEC). This program is offered in English, History/Social Studies, Science (Biology, Chemistry, or Engineering/Physics), and leads to state certification for public school teaching in these fields.

The Undergraduate Teacher Education Program consists of three components: courses in educational theory, courses in the teaching field, and student teaching. These are designed to complement and enhance the liberal education derived from concentration courses and electives.
Students who are interested in completing the Undergraduate Teacher Education Program must confer with the Education Department as early as possible in order to plan a coherent program. The program includes a methods course, offered during the summer in conjunction with teaching at Brown Summer High School, between Semesters VI and VII.

Courses in the teaching field
Because the program emphasizes the importance of knowledge in the teaching field, students are required to complete an academic concentration in the subject which they are preparing to teach or a closely related field. This does not mean that a student must elect a standard concentration in the field. However, such a student must, as part of or in addition to his/her chosen concentration, elect a substantive number of courses in his/her teaching field. Students considering the program should consult with advisors both in the academic department and in the Education Department to design an appropriate program of study that meets Rhode Island state certification requirements and those of many other states.

All of the required courses in education must be taken at Brown. None can be transferred for credit from other institutions. Requirements of the program include:

- EDUC 0900 Fieldwork and Seminar in Secondary Education
- EDUC 1450 The Psychology of Teaching and Learning
- EDUC 1070A Student Teaching: English
- EDUC 1070B Student Teaching: History and Social Studies
- EDUC 1070C Student Teaching: Science
- EDUC 1080A Analysis of Teaching: English
- EDUC 1080A Analysis of Teaching: History and Social Studies
- EDUC 1080A Analysis of Teaching: Science
- EDUC 2060A Methods of Teaching: English
- EDUC 2060B Methods of Teaching: History and Social Studies
- EDUC 2060C Methods of Teaching: Science
- EDUC 2090 Literacy Across the Curriculum
- An Education elective.

Engineering
The concentration in Engineering equips students with a solid foundation for productive careers in engineering, to advance the knowledge base for future technologies, and to merge teaching, scholarship, and practice in the pursuit of solutions to human needs. The concentration offers one standard A.B. program, and seven ABET-accredited Sc.B. degree programs: biomedical engineering, chemical and biochemical, civil through May 2016, computer, electrical, materials, and mechanical engineering. (Note: Students interested in structural engineering entering in the class of 2017 and beyond may pursue a Structures track within the ABET-accredited Mechanical Engineering program. The Civil track has been discontinued for all new students entering after Fall 2012.) Unaccredited ScB degree programs in Environmental engineering and Engineering Physics are also offered.

Standard program for the A.B. degree
Candidates for the Bachelor of Arts (A.B.) degree with a concentration in Engineering must complete at least eight approved Engineering courses. The eight courses must include, and at least two 1000-level Engineering courses. Of these 1000-level courses, one must be a design or independent study course and the other an in-classroom experience. The set of Engineering courses must be chosen with careful attention to the pre-requisites of the 1000-level courses. Please note that not all engineering courses can be used to satisfy the engineering course requirement for the A.B. degree. For example, the following courses cannot be used to satisfy the engineering course requirement for the A.B. degree: ENGN 0020, ENGN 0090, ENGN 0090C, ENGN 0090, ENGN 00910, ENGN 00930C, ENGN 01010. For this reason, it is essential that the set of courses must be developed through consultation with the concentration advisor.

The A.B. program also requires preparation in Mathematics equivalent to MATH 0200 and APMA 0330, as well as at least one college-level science course from the general areas of chemistry, life sciences, physics, or geological sciences. Remedial courses, such as CHEM 0100, cannot be used to satisfy this requirement. A programming course is also recommended, but not required. The entire program is subject to approval by the Engineering AB Concentration Advisor and the Engineering Concentration Chair.

Standard programs for the Sc.B. degree
Standard programs for the Sc.B. degree include seven ABET-accredited degree programs: biomedical engineering, and the following tracks in Engineering: chemical and biochemical, civil (through 2016), computer, electrical, materials, and mechanical engineering. In addition, unaccredited programs in Environmental Engineering, and Engineering and Physics, are offered. Students may also petition the concentration committee to pursue a ‘special’ engineering ScB degree of their own design. Students with a special concentration will receive an ScB degree in engineering, but a specific area of specialization will not be noted on their transcript. These programs are described in detail in the booklet, Engineering Undergraduate Programs (available online at http://brown.edu/academics/engineering/undergraduate-study/program-guide).

Students without one of secondary school level preparation in calculus should take MATH 0090, MATH 0100 in their first year. These students need to be familiar with multivariable calculus for ENGN 0510, which is often taken during the first semester of the sophomore year. Such students are urged to acquire the necessary math background through self-study, by taking a summer course, or by deferring until additional mathematics has been taken. In addition, all students must successfully complete a minimum of four courses in the humanities and/or social sciences.

The program of each student must be approved by the Engineering Concentration Committee, which issues more detailed guidelines and program suggestions.

Chemical and Biochemical Track: ABET Accredited

1. Core Courses:
   - ENGN 0030 Introduction to Engineering 1
   - ENGN 0040 Dynamics and Vibrations 1
   - ENGN 0410 Materials Science 1
   - ENGN 0510 Electricity and Magnetism 1
   - ENGN 0520 Electrical Circuits and Signals 1
   - ENGN 0720 Thermodynamics 1
   - ENGN 0810 Fluid Mechanics 1
   - CHEM 0330 Equilibrium, Rate, and Structure 1
   - MATH 0190 Advanced Placement Calculus (Physics/Engineering) 1
   - MATH 0200 Intermediate Calculus (Physics/Engineering) 1
   - APMA 0330 Methods of Applied Mathematics I, II 1
   - APMA 0340 Methods of Applied Mathematics I, II 1
   - BIOL 0200 The Foundation of Living Systems 1

2. An Upper-level Sequence:
   - ENGN 1110 Transport and Biotransport Processes 1
   - ENGN 1120 Chemical and Biochemical Reactor Design 1
   - ENGN 1130 Phase and Chemical Equilibria 1
   - ENGN 1140 Chemical Process Design 1
   - ENGN 1710 Heat and Mass Transfer 1
   - CHEM 0350 Organic Chemistry 1
   - One additional elective Chemistry course with a significant laboratory component 1

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
3. One approved, upper-level elective course in the natural sciences, to be selected from the four specific areas of chemistry, physics, life sciences, and materials science.  

Total Credits 21

1 Note: ENGN 1120 and 1130 are only offered in alternate years.
2 For example: CHEM 0360, CHEM 0400, CHEM 0500, CHEM 1170, etc.
3 For suggestions of acceptable courses, see the Concentration Advisor.

Civil Engineering Track (Available to students entering Brown on or before the Fall of 2012): ABET Accredited

Important Announcement: Civil Engineering as a standalone ABET accredited program will continue through May, 2016, and will be available to all students currently enrolled at Brown, including those who arrived as Freshmen in the Fall of 2012 (the class of 2016).

Students entering in the class of 2017 with interest in Structural Engineering will be able to concentrate in this discipline through a Structures track within the ABET-accredited Mechanical Engineering program.

Students interested in Environmental Problems and Planning are directed to the ABET-accredited program in Civil and Environmental Engineering.

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>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
</tr>
<tr>
<td>ENGN 0310</td>
<td>Mechanics of Solids and Structures</td>
</tr>
<tr>
<td>ENGN 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 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>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving</td>
</tr>
</tbody>
</table>

2. An advanced sciences course GEOL 1580 Quantitative Elements of Physical Hydrology

3. Seven additional courses (six credits), depending on the area of interest:

3 a. For students interested in Structures, the following courses are required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1300</td>
<td>Structural Analysis</td>
</tr>
<tr>
<td>ENGN 1340</td>
<td>Water Supply and Wastewater Treatment</td>
</tr>
<tr>
<td>ENGN 1360</td>
<td>Soil Mechanics and Principles of Foundation Engineering</td>
</tr>
<tr>
<td>ENGN 1380</td>
<td>Design of Civil Engineering Structures</td>
</tr>
<tr>
<td>ENGN 1930D</td>
<td>Large Scale Engineering Design Project</td>
</tr>
</tbody>
</table>

Plus one additional course from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1370</td>
<td>Advanced Engineering Mechanics</td>
</tr>
<tr>
<td>ENGN 1740</td>
<td>Computer Aided Visualization and Design</td>
</tr>
<tr>
<td>ENGN 1750</td>
<td>Advanced Mechanics of Solids</td>
</tr>
<tr>
<td>ENGN 1860</td>
<td>Advanced Fluid Mechanics</td>
</tr>
</tbody>
</table>

3 b. For students interested in Environmental Problems and Planning, the following courses are required:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1910</td>
<td>Environmental Engineering Design</td>
</tr>
<tr>
<td>ENGN 1920</td>
<td>Environmental Systems Design</td>
</tr>
</tbody>
</table>

Computer Engineering Track: ABET Accredited

The 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>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations</td>
</tr>
<tr>
<td>ENGN 0510</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>ENGN 0520</td>
<td>Electrical Circuits and Signals</td>
</tr>
</tbody>
</table>

Select one of the following Series:

2. MATH 0190 Advanced Placement Calculus (Physics/Engineering) and Intermediate Calculus (Physics/Engineering)
   1. MATH 0170 Advanced Placement Calculus and Intermediate Calculus
   2. APMA 0330 Methods of Applied Mathematics I, II
   3. APMA 1650 Statistical Inference I
   4. CHEM 0330 Equilibrium, Rate, and Structure
   5. CHEM 0400 Physical Hydrology
   6. ENGN 0810 Fluid Mechanics
   7. ENGN 0910 Design of Civil Engineering Structures

Select one of the following series:

2. CSCI 0150 Introduction to Object-Oriented Programming and Computer Science
   1. CSCI 0160 and CSCI 0170 Introduction to Algorithms and Data Structures
   2. CSCI 0180 Computer Science: An Integrated Introduction
   3. CSCI 0190 and CSCI 0200 Introduction to Scientific Computing and Problem Solving

2. Advanced Core:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
</tr>
<tr>
<td>CSCI 0310</td>
<td>Introduction to Computer Systems</td>
</tr>
<tr>
<td>ENGN 1570</td>
<td>Linear System Analysis</td>
</tr>
<tr>
<td>ENGN 1630</td>
<td>Digital Electronics Systems Design</td>
</tr>
</tbody>
</table>

3. Specialty Courses:

3 a. For the Computer Specialty:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1620</td>
<td>Analysis and Design of Electronic Circuits</td>
</tr>
<tr>
<td>ENGN 1640</td>
<td>Design of Computing Systems</td>
</tr>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1580</td>
<td>Communication Systems</td>
</tr>
<tr>
<td>ENGN 1600</td>
<td>Design and Implementation of Very Large-Scale Integrated Systems</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1650</td>
<td>Embedded Microprocessor Design</td>
</tr>
<tr>
<td>ENGN 1680</td>
<td>Design and Fabrication of Semiconductor Devices</td>
</tr>
<tr>
<td>ENGN 2530</td>
<td>Digital Signal Processing</td>
</tr>
<tr>
<td>ENGN 2910A</td>
<td>Advanced Computer Architecture</td>
</tr>
<tr>
<td>ENGN 2910P</td>
<td>Nano-system Design</td>
</tr>
<tr>
<td>ENGN 2910W</td>
<td>Synthesis of VLSI Systems</td>
</tr>
<tr>
<td>ENGN 2911C</td>
<td>Digital Integrated Circuit Testing and Hardware</td>
</tr>
<tr>
<td>ENGN 2911G</td>
<td>Physical Design of Digital Integrated Circuits</td>
</tr>
<tr>
<td>ENGN 2911X</td>
<td>Reconfigurable Computing</td>
</tr>
<tr>
<td>ENGN 2911Y</td>
<td>Verification, Test, Synthesis</td>
</tr>
<tr>
<td>Other ENGN courses subject to approval</td>
<td></td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
</tr>
<tr>
<td>CSCI 0320</td>
<td>Introduction to Software Engineering</td>
</tr>
<tr>
<td>CSCI 1230</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>CSCI 1270</td>
<td>Database Management Systems</td>
</tr>
<tr>
<td>CSCI 1380</td>
<td>Distributed Computer Systems</td>
</tr>
<tr>
<td>CSCI 1410</td>
<td>Applied Artificial Intelligence</td>
</tr>
<tr>
<td>CSCI 1480</td>
<td>Building Intelligent Robots</td>
</tr>
<tr>
<td>CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
</tr>
<tr>
<td>CSCI 1670</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CSCI 1680</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>CSCI 1730</td>
<td>Introduction to Programming Languages</td>
</tr>
<tr>
<td>CSCI 1760</td>
<td>Introduction to Multiprocessor Synchronization</td>
</tr>
<tr>
<td>CSCI 1900</td>
<td>Software System Design</td>
</tr>
<tr>
<td>Other Computer Science courses subject to approval of the Engineering Concentration Committee.</td>
<td></td>
</tr>
<tr>
<td>3 b. For the Multimedia Signal Processing Specialty:</td>
<td></td>
</tr>
<tr>
<td>APMA 1170</td>
<td>Introduction to Computational Linear Algebra</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
</tr>
<tr>
<td>ENGN 1580</td>
<td>Communication Systems</td>
</tr>
<tr>
<td>ENGN 1610</td>
<td>Image Understanding</td>
</tr>
<tr>
<td>ENGN 2500</td>
<td>Medical Image Analysis</td>
</tr>
<tr>
<td>ENGN 2520</td>
<td>Pattern Recognition and Machine Learning</td>
</tr>
<tr>
<td>ENGN 2530</td>
<td>Digital Signal Processing</td>
</tr>
<tr>
<td>ENGN 2540</td>
<td>Speech Processing</td>
</tr>
<tr>
<td>ENGN 2560</td>
<td>Computer Vision</td>
</tr>
<tr>
<td>ENGN 2570</td>
<td>Applied Stochastic Processes</td>
</tr>
<tr>
<td>ENGN 2910X</td>
<td>Video Processing</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td></td>
</tr>
<tr>
<td>CSCI 0320</td>
<td>Introduction to Software Engineering</td>
</tr>
<tr>
<td>CSCI 1230</td>
<td>Introduction to Computer Graphics</td>
</tr>
<tr>
<td>CSCI 1410</td>
<td>Applied Artificial Intelligence</td>
</tr>
<tr>
<td>CSCI 1460</td>
<td>Introduction to Computational Linguistics</td>
</tr>
<tr>
<td>CSCI 1570</td>
<td>Design and Analysis of Algorithms</td>
</tr>
<tr>
<td>CSCI 1900</td>
<td>Software System Design</td>
</tr>
<tr>
<td>Other CSCI courses subject to the approval of the Engineering Concentration Committee.</td>
<td></td>
</tr>
<tr>
<td>One additional course from the APMA, ENGN, and CSCI courses listed above.</td>
<td></td>
</tr>
</tbody>
</table>

1 Capstone Course/Independent Study: ENGN 1970/ENGN 1971, an independent study relevant to the specialty selected by the student. For the Computer Systems Specialty, may be used as the Capstone, but then cannot be counted for the ENGN choice above in 3a. The independent study project should provide students with exposure to current research topics. In order to assure satisfactory progress in their independent study, students enrolled will meet at least bi-weekly with their advisors and give two oral reports to the group during the semester. A final written report will also be required. In addition, students will meet as a group with faculty to share ideas and help nurture an environment of collaborative research.

### Electrical Engineering Track: ABET Accredited

1. Core Courses:
   - ENGN 0030 Introduction to Engineering 1
   - ENGN 0040 Dynamics and Vibrations 1
   - ENGN 0410 Materials Science 1
   - ENGN 0510 Electricity and Magnetism 1
   - ENGN 0520 Electrical Circuits and Signals 1
   - ENGN 0720 Thermodynamics 1
   - ENGN 0310 Mechanics of Solids and Structures 1
   - CHEM 0330 Equilibrium, Rate, and Structure 1
   - APMA 0330 Methods of Applied Mathematics I, II 1
   - APMA 0340 Methods of Applied Mathematics I, II 1
   - CSCI 0040 Introduction to Scientific Computing and Problem Solving 1
   - PHYS 0790 Physics of Matter 1

2. Four courses from the following: 4
   - ENGN 1570 Linear System Analysis
   - ENGN 1620 Analysis and Design of Electronic Circuits
   - ENGN 1630 Digital Electronics Systems Design
   - ENGN 1000 Projects in Engineering Design
   - ENGN 1650 Embedded Microprocessor Design
   - ENGN 1970 Independent Studies in Engineering
   - ENGN 1971 Independent Study in Engineering

3. The student shall choose the other three courses to satisfy requirements of a selected specialty area: Bioelectrical Engineering, Communications Systems, Computer Engineering, Multimedia Signal Processing, Microelectronic Systems, or Solid State Electronics and Photonics. 2

Total Credits 21

1 Or any other 1000-level Physics course

2 Students should consult the Engineering Undergraduate Programs booklet regarding specific details for each specialty area (available online at http://www.brown.edu/academics/engineering/content/program-guide).

### Environmental Engineering Track

1. Core Courses:
   - ENGN 0030 Introduction to Engineering 1
   - ENGN 0040 Dynamics and Vibrations 1
   - ENGN 0410 Materials Science 1
   - ENGN 0510 Electricity and Magnetism 1
   - ENGN 0720 Thermodynamics 1
   - ENGN 0810 Fluid Mechanics 1
   - CHEM 0330 Equilibrium, Rate, and Structure 1

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

1. Core Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 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 0310</td>
<td>Mechanics of Solids and Structures</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0810</td>
<td>Fluid Mechanics</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>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>APMA 0340</td>
<td>Methods of Applied Mathematics I, II</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>Introduction to Scientific Computing and Problem Solving</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0790</td>
<td>Physics of Matter</td>
<td>1</td>
</tr>
</tbody>
</table>

2. The student must take the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1410</td>
<td>Physical Chemistry of Solids</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1420</td>
<td>Kinetics Processes in Materials Science and Engineering</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1440</td>
<td>Mechanical Properties of Materials</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1000</td>
<td>Projects in Engineering Design</td>
<td>1</td>
</tr>
</tbody>
</table>

3. Three of the following upper level materials courses: 1

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGN 1450</td>
<td>Properties and Processing of Electronic Materials</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1470</td>
<td>Structure and Properties of Nonmetallic Materials</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1480</td>
<td>Metallic Materials</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1490</td>
<td>Biomaterials</td>
<td>1</td>
</tr>
</tbody>
</table>

4. Upper level courses recommended to satisfy requirements of a selected specialty area, Mechanical Properties and Mechanical Processing, Electrical Properties and Applications of Materials to Solid State Electronics, Chemistry and Materials Processing and Synthesis, or Biomaterials, may be found in the Engineering Undergraduate Programs booklet available online at http://www.engin.brown.edu/undergrad/guide/index.html.

Total Credits 21

1 Or, with permission, ENGN 1970 or ENGN 1971, containing an equivalent design experience relevant to Materials Engineering.

2 These courses are taken in either the junior or senior year.

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

<table>
<thead>
<tr>
<th>Series</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0050 &amp; PHYS 0060</td>
<td>2</td>
</tr>
<tr>
<td>PHYS 0070 &amp; PHYS 0160</td>
<td>2</td>
</tr>
<tr>
<td>ENGN 0030 &amp; ENGN 0040</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0170 &amp; MATH 0180</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0190 &amp; MATH 0200</td>
<td>2</td>
</tr>
<tr>
<td>CSCI 0040</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0310</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 0810</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>1</td>
</tr>
<tr>
<td>ENG 1620 &amp; ENGN 1370 &amp; ENGN 1690 &amp; PHYS 0500</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 1410 &amp; ENGN 1420 &amp; ENGN 1530</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170 &amp; MATH 0180</td>
<td>2</td>
</tr>
<tr>
<td>or PHYS 0560</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 1560 &amp; ENGN 1590</td>
<td>2</td>
</tr>
<tr>
<td>or CHEM 0330</td>
<td>1</td>
</tr>
</tbody>
</table>

Select three additional higher-level math, applied math, or mathematical physics (PHYS 0720) courses.

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0470 &amp; PHYS 1510</td>
<td>2</td>
</tr>
<tr>
<td>ENGN 0510 &amp; ENGN 1560</td>
<td>2</td>
</tr>
<tr>
<td>MATH 1570</td>
<td>1</td>
</tr>
<tr>
<td>ENGN 1610</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 1420</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 1530</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 0170</td>
<td>2</td>
</tr>
<tr>
<td>or PHYS 0560</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 0810</td>
<td>1</td>
</tr>
<tr>
<td>or PHYS 1410</td>
<td>1</td>
</tr>
<tr>
<td>or CHEM 0330</td>
<td>1</td>
</tr>
</tbody>
</table>

An approved 2000-level engineering or physics course.

A thesis under the supervision of a physics or engineering faculty member:

<table>
<thead>
<tr>
<th>Series</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1990 or ENGN 1970</td>
<td>1</td>
</tr>
<tr>
<td>or ENGN 1971</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 19

In addition, students must take four courses in the humanities and social sciences. They are encouraged to consider taking courses dealing with the philosophical, ethical, or political aspects of science and technology. To accommodate the diverse preparation of individual students, variations of the above sequences and their prerequisites are possible by permission of the appropriate concentration advisor and the instructors involved. It is required that each student's degree program be submitted for prior approval (typically in semester four) and scrutinized for compliance (in semester seven) by one faculty member from the Department of Physics and one faculty member from the Division of Engineering.

English

English concentrators analyze language and form in the ongoing history of literatures in English, learning how literature shapes and is shaped by the world. We promote original work on new questions of history, criticism, and theory. And we invite practices of reading and writing that challenge the creation of knowledge in our fields. The curriculum includes courses from the range of literatures in English and in addition to the regular concentration offers a "track" in Nonfiction Writing, which attends to critical writing, the research paper, journalism, creative writing, and nonfiction writing. One of the largest humanities concentrations at Brown, English provides a strong foundation for a liberal education and for careers in many sectors of the changing spectrum of employment: the media, teaching, finance, government, corporate research and administration. English concentrators routinely go on to law, medical, and professional schools as well as to graduate education in literature and the arts.

About the Concentration

Through the study of literature in English, concentrators develop skills in critical reading, thinking, and writing in preparation for a wide range of professions and careers including teaching, writing, publishing, media, medicine, law, and business. The concentration requirements aim to provide students with a coherent sense of the history of English literature from Anglo-Saxon times to the present. English concentrators have considerable latitude to choose the specific courses that will meet the requirements and we expect these choices to be informed by consistent consultation with a faculty advisor. Writing skills are an especially important focus of the English concentration. Through a variety of exercises from the short analytical essay to the longer research paper English concentrators are given a range of opportunities to sharpen their writing. We encourage students interested in concentrating in English to come into the department offices at 70 Brown Street and speak with a concentration advisor. Students in English courses who are considering an English concentration are welcome to make an appointment to speak with their instructor. Concentration programs must be approved by a concentration advisor. To declare a concentration, students 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 at the level of 0300 or above):

1. Two courses in Area I: Medieval and Early Modern Literatures: 2
2. Two courses in Area II: Enlightenment and the Rise of National Literatures: 2
3. Two courses in Area III: Modern and Contemporary Literatures: 2
4. One theory course 1
5. Three electives 2

Total Credits 10

1 Five courses must be 1000-level courses. With advisor approval, two of the ten required courses may be taking in departments other than English.
2 As many as two 1000-level courses dealing primarily with the practice of writing, rather than the interpretation of literature, may be counted as electives.

All substitutions and/or exceptions must be approved by the concentration advisor in consultation with the Director of Undergraduate Studies. A substitution or exception is not approved until specified in writing in the student's concentration file housed in the English Department.

English Concentration -- Nonfiction Writing Track (11 courses at the level of 0300 or above)

The English concentration also includes a Nonfiction Writing Track. The requirements for this are the same as 1 through 4 above, in addition to one English literature course emphasizing the genre of nonfiction writing.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
and three 1000-level Nonfiction Writing courses (only one of which may be ENGL 1050) for a total of eleven courses.

**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. Interested concentrators are encouraged to speak to the Honors Advisor early in their junior year to discuss their plans. Specific deadlines for admission are announced annually and are available in the department office. Students who are studying off campus are expected to meet the application submission deadline.

Admission to the English Honors Program depends on evidence of availability 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.

**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 Director.

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 1992 and ENGL 1993. 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.

**December graduates take the following sequence of additional thesis courses instead:**

In the 7th semester (Spring), students must take one of the following courses, within which they begin to research and write their theses:

--An Independent Study with their thesis advisor
--or ENGL 1140A: The Literary Scholar

Either course must be taken S/NC.

In the 8th semester (Fall), students must take ENGL 1992 for a grade, as they complete their theses.

Half-year graduates should consult with the Honors Director for information about deadlines.

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 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 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 but before the end of the term will receive a grade for the thesis course, but they will not be eligible for departmental honors. The completed thesis will be evaluated by the student’s advisor and a second reader, each of whom provides written commentary and suggests a grade for ENGL 1992.

**Evaluation**

The English Department reviews the academic record as well as the thesis evaluations for each senior completing the Honors Program. Following a successful review, the student will be eligible to graduate with Honors in English.

**Honors in Nonfiction Writing**

The Nonfiction Writing Honors Program is intended for students who have been highly successful in their English concentration work. Specifically, it allows those who have an expressed and proven interest in nonfiction writing to pursue more completely a single project under the supervision of 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 at the latest. Interested students should already have made contact with at least one member of the Nonfiction Writing faculty and should meet with the Honors Advisor to discuss their proposed project.

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 (ENGL 1050) and one advanced (ENGL 1140, 1160, 1180, or 1190) 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. See procedures and application (http://brown.edu/academics/english/nonfiction-honors-procedures) for more details.

**Requirements**

Students in the Nonfiction Writing Honors Program take two additional courses beyond the eleven 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 thirteen the total number of required courses. The ENGL 1993 grade option must be S/NC; ENGL 1994 must be taken for a grade. Honors candidates should discuss their proposed course of study with the faculty member they choose to direct their thesis. Honors candidates must continue to receive more As than Bs in courses taken as part of the concentration. Courses completed with a grade of C will not count toward an Honors concentration. A student who receives a “C” after admission to Nonfiction Honors and wishes to continue in the program must complete an additional course in a comparable subject area, with a grade better than C.

**The Honors Thesis**

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
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 and 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. Half-year graduates will take ENGL 1200 in the spring of their final year and ENGL 1994 in the fall. (Half-year graduates should consult with the Honors Advisor for information on deadlines.)

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 Nonfiction Writing.

Environmental Studies
Many of the most pressing challenges of the 21st Century are environmental. 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 for the Study of Environment and Society (ISES) offers two undergraduate degrees: an A.B. in Environmental Studies and an Sc.B. in Environmental Science. The A.B. and Sc.B. degrees vary primarily in the number of course requirements; the Sc.B. is a more in-depth treatment of a single field. Both degrees provide interdisciplinary exposure to the natural and social sciences, as well as public policy. Both degrees also develop depth in a primary field by requiring students to select one of four tracks of study. 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.

Students interested in the AB should consult with Prof. Kurt Teichert, while students with an interest in the ScB should consult with Prof. Dov Sax.

Standard program Environmental Studies and Environmental Science:
The Center for Environmental Studies 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). Beginning 2014-2015 the Center will be offering a new curriculum (For previous curriculum please consult the Bulletin Archive for prior Academic Years). The new curriculum provides a more structured set of course offerings arranged into four tracks:

1. Air, Climate & Energy
2. Conservation Science & Policy
3. Land, Water & Food Security
4. Sustainability in Development

Requirements for the A.B. in Environmental Studies:

<table>
<thead>
<tr>
<th>Core Requirements</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 0110 Principles of Economics</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 0490 Environmental Science in a Changing World</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 1509 - Introduction to Environmental Social Sciences</td>
<td>(Course under development)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track Specific Requirements</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Track 1 - Air, Climate, and Energy</strong></td>
<td></td>
</tr>
<tr>
<td>Climate:</td>
<td></td>
</tr>
<tr>
<td>GEOL 1350 Weather and Climate</td>
<td></td>
</tr>
<tr>
<td>Physics:</td>
<td></td>
</tr>
<tr>
<td>PHYS 0050 Foundations of Mechanics</td>
<td></td>
</tr>
<tr>
<td>Energy Technology: choose 1</td>
<td></td>
</tr>
<tr>
<td>ENGN 1930U Renewable Energy Technologies</td>
<td></td>
</tr>
<tr>
<td>PHYS 0114 The Science and Technology of Energy</td>
<td></td>
</tr>
<tr>
<td>Policy: choose 1</td>
<td></td>
</tr>
<tr>
<td>ENVS 1410 Environmental Law and Policy</td>
<td></td>
</tr>
<tr>
<td>ENVS 1415 Power, Justice, and Climate Change</td>
<td></td>
</tr>
<tr>
<td>ENVS 1615 - Environmental Policy Process</td>
<td></td>
</tr>
<tr>
<td>ENVS 1755 Globalization and the Environment</td>
<td></td>
</tr>
<tr>
<td>ENVS 1925 Energy Policy and Politics</td>
<td></td>
</tr>
<tr>
<td>Sustainable Infrastructure: Choose 1</td>
<td></td>
</tr>
<tr>
<td>ENVS 0410 Environmental Stewardship</td>
<td></td>
</tr>
<tr>
<td>ENVS 1400 Sustainable Design in the Built Environment</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track 2 - Conservation Science and Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology:</td>
</tr>
<tr>
<td>BIOL 0420 Principles of Ecology</td>
</tr>
<tr>
<td>Conservation:</td>
</tr>
<tr>
<td>BIOL 1470 Conservation Biology</td>
</tr>
<tr>
<td>Marine Conservation: choose 1</td>
</tr>
<tr>
<td>ENVS 0455 Coastal Ecology and Conservation</td>
</tr>
<tr>
<td>ENVS 1455 Marine Conservation Science and Policy</td>
</tr>
<tr>
<td>Policy: choose 1</td>
</tr>
<tr>
<td>ENVS 0510 International Environmental Law and Policy</td>
</tr>
<tr>
<td>ENVS 1410 Environmental Law and Policy</td>
</tr>
<tr>
<td>ENVS 1615 - Environmental Policy Process</td>
</tr>
<tr>
<td>Statistics: Choose 1</td>
</tr>
<tr>
<td>APMA 0650 Essential Statistics</td>
</tr>
<tr>
<td>APMA 1650 Statistical Inference I</td>
</tr>
<tr>
<td>BIOL 0495 Statistical Analysis of Biological Data</td>
</tr>
<tr>
<td>ECON 1620 Introduction to Econometrics</td>
</tr>
<tr>
<td>ENVS 1100 Statistical Methods for the Natural and Social Environmental Sciences</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Track 3 - Land, Water &amp; Food Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate:</td>
</tr>
<tr>
<td>GEOL 1350 Weather and Climate</td>
</tr>
<tr>
<td>Biology: choose 1</td>
</tr>
<tr>
<td>BIOL 0190H Plants, Food, and People</td>
</tr>
<tr>
<td>BIOL 0210 Diversity of Life</td>
</tr>
<tr>
<td>BIOL 0420 Principles of Ecology</td>
</tr>
<tr>
<td>ENVS 0455 Coastal Ecology and Conservation</td>
</tr>
<tr>
<td>Environmental History: choose 1</td>
</tr>
<tr>
<td>ENVS 1530 From Locke to Deep Ecology: Property Rights and Environmental Policy</td>
</tr>
<tr>
<td>HIST 1790 Environmental History</td>
</tr>
<tr>
<td>Policy: choose 1</td>
</tr>
<tr>
<td>ENVS 0510 International Environmental Law and Policy</td>
</tr>
<tr>
<td>ENVS 1350 Environmental Economics and Policy</td>
</tr>
<tr>
<td>ENVS 1410 Environmental Law and Policy</td>
</tr>
<tr>
<td>ENVS 1455 Marine Conservation Science and Policy</td>
</tr>
<tr>
<td>ENVS 1615 - Environmental Policy Process</td>
</tr>
<tr>
<td>Tools: Choose 1</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Track 4 - Sustainability in Development

**Environment and Development:** choose 2  
- ENVS 0410 Environmental Stewardship  
- ECON 1410 Urban Economics  
- ENVS 1415 Power, Justice, and Climate Change  
- ECON 1530 Health, Hunger and the Household in Developing Countries  
- ENVS 1555 Urban Agriculture: The Importance of Localized Food Systems  
- ENVS 1755 Globalization and the Environment  

**Policy:** choose 2  
- ENVS 0510 International Environmental Law and Policy  
- ENVS 1350 Environmental Economics and Policy  
- ENVS 1410 Environmental Law and Policy  
- ENVS 1455 Marine Conservation Science and Policy  
- ENVS 1615 - Environmental Policy Process  

**Analysis Tools:** Choose 1  
- ECON 1620 Introduction to Econometrics  
- ANTH 1940 Ethnographic Research Methods  
- EDUC 1100 Introduction to Qualitative Research Methods  
- ENVS 1100 Statistical Methods for the Natural and Social Environmental Sciences  
- GEOL 1320 Introduction to Geographic Information Systems for Environmental Applications  
- SOC 1100 Introductory Statistics for Social Research  
- SOC 1117 Focus Groups for Market and Social Research  

**Electives:** 3  
Acceptable courses include any ENVS course, any course listed on one or more of the lists for the tracks, and any prerequisites listed for one of these courses  

**Methods Course**  
- ENVS 1920 Analysis and Resolution of Environmental Problems/Case Studies  

**Capstone:** 1-2  
This requirement can be met with a two-semester thesis (ENVS 1970 and ENVS 1971), one or two semester practicum (ENVS 1970 and/or ENVS 1971), one-semester research project (ENVS 1970 or WNVS 1971), or an approved capstone course. Approved capstone courses are project-based senior seminars.  

**Total Credits:** 14-15  

1. Students with AP scores of 4 or 5 in Macroeconomics plus a 4 or 5 in Microeconomics may place out of ECON 0110. Students who place out of ECON 0110 must substitute this course with an additional environmental elective.  
2. Concentrators with an AP score of 5 in Environmental Science may waive out of ENVS 0490. Students who place out of ENVS 0490 must substitute an additional environmental elective.  
3. Students pursuing the Sc.B. must take ENCON 1620.  

### Requirements for the Sc.B. in Environmental Science:  
**Requires ALL 14-15 course requirements as listed in the A.B. Program**  
**Additional Track specific requirements for the Sc.B.**  
**5**  

**Track 1 - Air, Climate, and Energy**  
- MATH 0090 Introductory Calculus, Part I  

**Track 2 - Conservation Science and Policy**  
- Math: MATH 0090 Introductory Calculus, Part I  
- Evolution: BIOL 0480 Evolutionary Biology  
- Organismal Diversity: choose 1  
  - BIOL 0410 Invertebrate Zoology  
  - BIOL 0430 The Evolution of Plant Diversity  
  - BIOL 0460 - Insect Biology  
- Env. Econ:  
  - ENVS 1350 Environmental Economics and Policy  
- Tools: choose 1  
  - GEOL 1320 Introduction to Geographic Information Systems for Environmental Applications  
  - GEOL 1330 Global Environmental Remote Sensing  

**Track 3 - Land, Water & Food Security**  
- Math: MATH 0090 Introductory Calculus, Part I  
- Chemistry:  
  - CHEM 0330 Equilibrium, Rate, and Structure  
- Earth/Life Systems: choose 3  
  - BIOL 1470 Conservation Biology  
  - BIOL 1475 Biogeography  
  - BIOL 1480 Terrestrial Biogeochemistry and the Functioning of Ecosystems  
- ENVS 1491 SES-Terrestrial Ecosystem Analysis  
- ENVS 1492 SES-Aquatic Ecosystem Analysis  
- GEOL 0240 Earth: Evolution of a Habitable Planet  
- GEOL 1110 Estuarine Oceanography  
- GEOL 1130 Ocean Biogeochemical Cycles  
- GEOL 1370 Environmental Geochemistry  
- GEOL 1510 Introduction to Atmospheric Dynamics  
- GEOL 1660 Instrumental Analysis with Environmental Applications  

**Track 4 - Sustainability in Development**  
- Sociology and Politics: choose 1  
  - SOC 1870K Demographics and Development  
  - POLS 0400 Introduction to International Politics  
  - ENVS 1755 Globalization and the Environment  
- Critical Perspectives on Development: choose 1:  
  - ANTH 0110 Anthropology and Global Social Problems  
  - DEVL 1000 Sophomore Seminar in Sociology of Development (SOC 1871D)  
- Economic Perspectives: choose 2  
  - ECON 1110 Intermediate Microeconomics  
  - ECON 1510 Economic Development  
  - ECON 1530 Health, Hunger and the Household in Developing Countries  
  - ECON 1560 Economic Growth  

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

Ethnic Studies is an interdisciplinary, comparative concentration that examines the construction of race and ethnicity in social, cultural, historical, political, and economic contexts. Concentrators develop individual programs based on areas of focus in consultation with faculty advisors, drawing from courses in the humanities and social sciences. Typical areas of focus are social issues (such as inequality, education, or health), cultural production and the representation of racial groups, processes of racialization, the historical formation of transnational communities and of diaspora, and the history of particular ethnic or racial groups. The concentration is supported by the Center for the Study of Race and Ethnicity, a research center that facilitates teaching, research, and programming on issues relevant to biracial and multiracial peoples, and emphasizes the interdisciplinary and comparative study of race, ethnicity, gender, and class.

Each concentrator is required to study the history and experience of more than one group. The focus may be either a United States–based comparative analysis or a United States/international analysis. Each program is to be organized around a set of core courses that help students to identify a set of historical and theoretical questions to be investigated and provide the tools necessary to address those questions.

Each concentrator pursues work in either literature and arts, the humanities, or the social sciences, or some combination of these. The work is to be systematic and well-defined. A faculty advisor works closely with the student to ensure that the work is rigorous and intellectually sound. The primary advisors for ethnic studies concentrators are the members of the Ethnic Studies Executive Committee.

Requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHN 0500</td>
<td>Introduction to American/Ethnic Studies</td>
<td>1</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFR/ 0090</td>
<td>An Introduction to Africana Studies</td>
<td>2</td>
</tr>
<tr>
<td>ANTH 1121</td>
<td>From Coyote to Casinos: Native North American Peoples and Cultures</td>
<td></td>
</tr>
<tr>
<td>SOCI 1270</td>
<td>Race, Class, and Ethnicity in the Modern World</td>
<td></td>
</tr>
<tr>
<td>ANTH 1400</td>
<td>Race, Culture, and Ethnic Politics</td>
<td></td>
</tr>
<tr>
<td>or ANTH 1420</td>
<td>Ethnicity, Race, and Gender in the Americas</td>
<td></td>
</tr>
<tr>
<td>Courses taught by core Ethnic Studies faculty may be recognized in consultation with concentration advisor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Three approved courses in the ethnic studies that addresses the student’s focus area.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Three courses drawn from a list of related courses.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>A course from the ENTH 1900 series.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

Honors

Candidates for honors must have a minimum GPA of 3.3 in their concentration courses at the end of their 6th semester, and must have completed a successful thesis or practicum proposal. Students may apply during the first month of their 7th semester. Honors will be conferred upon the successful completion of the thesis or practicum.

French Studies

The below concentration structure only applies to students who declared prior to the spring 2014 semester. For new declarations please consult the program in French and Francophone Studies.

The Department of French Studies offers three standard concentration tracks. Please note that the following apply to the French Civilization, French Literature and French Language tracks:

1. FREN 0600 or equivalent is a prerequisite.
2. The overall requirement is for a minimum of nine courses (ten for Honors).
3. Up to four courses taken abroad may count for concentration credit.
4. The senior seminar (FREN 1900) must be taken during the senior year. (Requirement for Civilization and Literature concentrations only).

French Civilization Track

The concentration in civilization enables students to develop a multifaceted understanding of French and Francophone cultures, histories and contemporary issues. While based in French Studies, the program is interdisciplinary, calling for the integration of elective courses in departments such as History, Africana Studies, History of Art, International Relations, Political Science, etc. A minimum of seven courses are to be taken in French Studies.

Required courses

- An upper-level language course from the FREN 1510 or FREN 1610 series
- A course from the FREN 0750 series
- A course from the FREN 1900 series

Electives

- Six courses: Four must be in French Studies. A maximum of two may be in other departments, at the 1000-level or higher. 
- Total Credits: 9

French Literature Track

The literature concentration provides a comprehensive view of French and Francophone literature and various types of literary analysis. Introductory courses acquaint students with methods of intellectual inquiry and basic critical approaches. Upper-level courses explore a particular author, literary genre, period, or special topic. Students learn how to use diverse analytical approaches, including semiotic, philosophical, psychological, feminist, and reader-oriented methods of criticism.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Our concentrators are skilled and knowledgeable in French and Francophone cultures. 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.

**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 from study in France or a Francophone country may count toward the concentration, from either a single semester or an entire year. A year or semester of study abroad in France or a Francophone country is considered an integral part of the concentration and is therefore highly recommended. Our concentrators 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. Through the Brown-in-France program (http://brown.edu/academics/french-studies/undergraduate/brown-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 0720,0750,0760 series gateway courses:

- **FREN 0720A** From Courtly Love to Postmodern Desire
- **FREN 0750A** Lost in Translation: Les voyageurs français en Amérique de Chateaubriand à Baudrillard
- **FREN 0750B** Au carrefour des sciences sociales: introduction à l’interprétation de la fiction littéraire
- **FREN 0750C** Cinéma et histoire
- **FREN 0750D** Nous et les autres: les Français et le monde de la Révolution
- **FREN 0750E** Lost in Translation: Representations of America by French Writers
- **FREN 0750F** Empire in the French Imagination
- **FREN 0760A** Introduction à l’analyse littéraire
- **FREN 0760B** Le Siècle des Lumières: Culture, Pensée, Société

One of the following:

- **FREN 1510A** Advanced Oral and Written French: Traduction
- **FREN 1510F** Advanced Written and Oral French: Regards sur la France actuelle
- **FREN 1510C** Advanced Oral and Written French: A table!
- **FREN 1990** Senior Thesis

**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 1030A** L’univers de la Renaissance: XVe et XVIIe siècles
- **FREN 1030B** The French Renaissance: The Birth of Modernity?
- **FREN 1040A** Civilité et littérature
- **FREN 1040B** Pouvoirs de la scène: le théâtre du XVIIe siècle
- **FREN 1040C** Le Grand Siècle à l’écran
- **FREN 1040D** Molière et son monde
- **FREN 1050A** "Family Values": Représentations littéraires de la famille au 18ème siècle
- **FREN 1050B** Fictions de l’individu
- **FREN 1050C** Le Siècle des Lumières: Culture, Pensée, Société
- **FREN 1050D** The Age of Voltaire: Culture, Pensée, Société

**French Language Track**

The concentration in language combines advanced linguistic proficiency with the study of language as a human phenomenon. It combines coursework in French Studies with disciplines that analyze the functioning of language (Cognitive and Linguistic Sciences), use linguistic models to study other fields of human behavior (Anthropology), or provide other specialized insight (e.g., Comparative Literature, Philosophy, Modern Communication and Media).

**Required courses**

- A course from the FREN 1510 series
- A course from the FREN 1610 series
- A course from the FREN 1020 series
- Two courses in French Studies, from the FREN 0750 series or higher.
- One final independent study course to provide a synthesis of the knowledge acquired in various areas of study.

**Electives**

- Select three 1000- or 2000-level courses in other departments.

**Total Credits**

9

1 A non-exhaustive list of extra-departmental electives is posted on the department’s web site.

**The Honors Program**

Candidacy for honors in French Studies presupposes an outstanding academic record, particularly in the major field. Any of the programs may be expanded into an Honors Concentration with these differences: the student will take a minimum of ten courses and write an Honors Thesis. While normally taken only in the seventh semester, students may opt to re-enroll in FREN 1990 (Senior Thesis) during the last semester, in which case eleven courses are required.

Further information on French Concentration Tracks and the Honors Programs is available on the department’s web site or from the Director of Undergraduate Studies.

**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 following concentration program became effective in the spring 2014 semester and replaces the French Studies concentration.

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 thus achieve advanced proficiency in the language. By the time they graduate, they will have learned to read with knowledge and nuance and produced a varied body of critical work in French.

**Total Credits**

9

1 A non-exhaustive list of extra-departmental electives is posted on the department’s web site.

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

FREN 1050E French Lovers: Séduction et libertinage sous l'Ancien Régime
FREN 1050F Espace public; espace privé
FREN 1050G Le corps des Lumières
FREN 1050H The Age of Voltaire: Lumières and modernité
FREN 1100F Contes et nouvelles du Moyen Age
FREN 1100G Old French Language and Literature Seminar
FREN 1100I Hostages and Prisoners of War in Medieval French Literature
FREN 1100H Histoires et contes du Moyen Age

At least one course a post-Revolutionary period 1
FREN 1060A Décadence
FREN 1060B Gender and the Novel
FREN 1060C La texte réaliste
FREN 1060D L'Orient littéraire
FREN 1060E Gender, Sexuality and the Novel
FREN 1060F Paris: Capital of the 19th Century
FREN 1060G Boulevard du crime
FREN 1070A Avant-Gardes
FREN 1070B Emergent literature: Postcolonial Nations and Cultural Identity
FREN 1070C Figures du roman français au XX siècle
FREN 1070D Le roman français au présent
FREN 1070E Littérature, appartenance et identité
FREN 1070F Nations of Writers
FREN 1070G Writing the Self: Memory, Childhood and the Novel
FREN 1070H Literature and Social Thought: Le Roman Policier
FREN 1070I Histoires d’animaux

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.

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.
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 http://www.brown.edu/research/pembroke-center/gender-and-sexuality-studies/undergraduate-concentration-gender-sexuality-studies

Geological Sciences

Geological science involves the study of the Earth (and other planetary bodies), including their compositions and histories and the physical chemical and biological processes that shape them. The geosciences are highly interdisciplinary, thus students must take some supporting math and science courses. Geoscience courses emphasize a process-oriented approach, with hands-on experiences in labs and on field trips. There is a strong emphasis on active and collaborative learning, and on practice in communication. Students may choose an AB (total of 13 courses) or an ScB (19 total courses, including one semester of research). There are many opportunities for students to do research work (typically in paid positions) during the academic year or in the summer, in areas such as deformation and properties of geological materials, deciphering the geologic history of some local rocks, or analysis of planetary images.

Standard program for the A.B. degree

This program provides a broad introduction to the geological sciences. Recommended for students seeking a liberal education and a general understanding of Earth processes and Earth history. Especially attractive for double concentrations, such as geology and economics as a career path to law or business, or geology and English as a career path to journalism or technical writing.

Basic supporting science courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure (or advanced placement)</td>
<td>1</td>
</tr>
<tr>
<td>Select three of the following:</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
<td></td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or more advanced)</td>
<td></td>
</tr>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
<td></td>
</tr>
<tr>
<td>PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics (or more advanced)</td>
<td></td>
</tr>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
<td></td>
</tr>
<tr>
<td>ENGN 0040</td>
<td>Dynamics and Vibrations (or more advanced)</td>
<td></td>
</tr>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (or more advanced)</td>
<td></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>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
<td>1</td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
<td></td>
</tr>
<tr>
<td>GEOL 1420</td>
<td>Petrology</td>
<td></td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
<td></td>
</tr>
</tbody>
</table>

Select two of the following: 2

- GEOL 0310 Fossil Record
- GEOL 1110 Estuarine Oceanography
- GEOL 1240 Stratigraphy and Sedimentation
- GEOL 1330 Global Environmental Remote Sensing
- GEOL 1350 Weather and Climate
- GEOL 1370 Environmental Geochemistry

A field course

Select two additional courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor. 2

Total Credits 13

**Standard program for the Sc.B. degree**

This program is recommended for students interested in graduate study and careers in the geosciences and related fields.

**Basic supporting science courses**

Select two courses in mathematics at the level of: 2

- MATH 0090 Introductory Calculus, Part I
- MATH 0100 Introductory Calculus, Part II

or another more advanced math or statistics course

- CHEM 0330 Equilibrium, Rate, and Structure (or advanced placement)

Select one of the following Series: 2

- PHYS 0050 Foundations of Mechanics
- PHYS 0060 Foundations of Electromagnetism and Modern Physics (or more advanced)

- ENGN 0030 Introduction to Engineering and Dynamics and Vibrations (or more advanced)
- ENGN 0040 Introduction to Engineering and Dynamics and Vibrations (or more advanced)

**Concentration courses**

- GEOL 0220 Physical Processes in Geology 1
- GEOL 0230 Geochemistry: Earth and Planetary Materials and Processes 1
- GEOL 0240 Earth: Evolution of a Habitable Planet 1
- GEOL 1240 Stratigraphy and Sedimentation 1
- GEOL 1410 Mineralogy 1
- GEOL 1420 Petrology 1
- GEOL 1450 Structural Geology 1

A field course 1

Select four courses from upper level geological sciences, mathematics, or supporting sciences with approval from the departmental concentration advisor.

- GEOL 1970 Individual Study of Geologic Problems (Senior Research Thesis) 1

Total Credits 19

1 Advanced placement may be substituted for the first semester of physics.

**Geology-Biology**

Geology-Biology involves study of the interactions of the Earth and its hydrosphere and atmosphere with the great diversity of life forms, and how they have evolved and influenced one another over the entire history of the Earth. Many courses emphasize climate and biogeochemistry; this concentration is a good one for students interested in quantitative approaches to environmental science. Students take a basic suite of geoscience courses and at least 4 bio courses of their choosing, plus some supporting math and science courses; the AB degree requires a total of 14 courses and the ScB degree requires a total of 19, including one semester of research. There is a strong emphasis on active and collaborative learning, and on practice in communication. There are many opportunities for students to do research work (typically in paid positions) during the academic year or in the summer, in areas such as determining the history of climate change during the recent ice age, investigating the causes of major extinctions, and using paleoenvironmental records to determine the vulnerability of different regions of the globe to droughts and other processes that strongly affect society.

**Standard program for the A.B. degree**

This program provides a broad introduction to the geologic and biologic processes that shape the Earth and our environment. It is recommended for students seeking a liberal education and a general understanding of Earth processes, including the evolution of climate and the environment, global environmental change and Earth history. The program prepares students for careers in environmental science, geology, ecology, oceanography, and global change.

**Basic supporting science courses**

- BIOL 0200 The Foundation of Living Systems (or more advanced) 1
- CHEM 0330 Equilibrium, Rate, and Structure (or advanced placement) 1

Select two courses in mathematics and/or physics at the level of: 2

- MATH 0090 Introductory Calculus, Part I (or more advanced)
- PHYS 0050 Foundations of Mechanics (or more advanced)
- ENGN 0030 Introduction to Engineering (or more advanced, or courses in data analysis and statistics)

**Concentration courses**

- GEOL 0220 Physical Processes in Geology 1
- GEOL 0230 Geochemistry: Earth and Planetary Materials and Processes 1
- GEOL 0240 Earth: Evolution of a Habitable Planet 1
- GEOL 1240 Stratigraphy and Sedimentation 1

Select three Biology courses from the following: 3

- BIOL 0390 Vertebrate Evolution and Diversity
- BIOL 0410 Invertebrate Zoology
- BIOL 0415 Microbes in the Environment
- BIOL 0420 Principles of Ecology
- BIOL 0430 The Evolution of Plant Diversity
- BIOL 0440 Plant Organism
- BIOL 0480 Evolutionary Biology
- BIOL 1470 Conservation Biology
- BIOL 1480 Terrestrial Biogeochemistry and the Functioning of Ecosystems
- BIOL 1500 Plant Physiological Ecology
- BIOL 1880 Comparative Biology of the Vertebrates

Three geological sciences courses from the following: 3

- GEOL 0580 Foundations of Physical Hydrology
- GEOL 1110 Estuarine Oceanography
- GEOL 1120 Paleogeography
- GEOL 1130 Ocean Biogeochemical Cycles
- GEOL 1150 Limnology: The Study of Lakes
- GEOL 1330 Global Environmental Remote Sensing
- GEOL 1350 Weather and Climate
- GEOL 1370 Environmental Geochemistry
- GEOL 1380 Environmental Stable Isotopes
- GEOL 1510 Introduction to Atmospheric Dynamics
- GEOL 1520 Ocean Circulation and Climate

Total Credits 14

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

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.

Basic Supporting Science Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 0200</td>
<td>The Foundation of Living Systems (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>
<tr>
<td>PHYS 0500</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></td>
</tr>
</tbody>
</table>

Select two courses in mathematics at the level of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or more advanced, or advanced courses in data analysis)</td>
</tr>
</tbody>
</table>

Fourteen (14) Concentration Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</td>
</tr>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes</td>
</tr>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
</tr>
<tr>
<td>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
</tr>
<tr>
<td>BIOL 0390</td>
<td>Vertebrate Evolution and Diversity</td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Invertebrate Zoology</td>
</tr>
<tr>
<td>BIOL 0415</td>
<td>Microbes in the Environment</td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
</tr>
<tr>
<td>BIOL 0430</td>
<td>The Evolution of Plant Diversity</td>
</tr>
<tr>
<td>BIOL 0440</td>
<td>Plant Organism</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
</tr>
<tr>
<td>BIOL 1480</td>
<td>Terrestrial Biogeochemistry and the Functioning of Ecosystems</td>
</tr>
<tr>
<td>BIOL 1500</td>
<td>Plant Physiological Ecology</td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
</tr>
</tbody>
</table>

Three geological sciences courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0580</td>
<td>Foundations of Physical Hydrology</td>
</tr>
<tr>
<td>GEOL 1110</td>
<td>Estuarine Oceanography</td>
</tr>
<tr>
<td>GEOL 1120</td>
<td>Paleooceanography</td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
</tr>
<tr>
<td>GEOL 1150</td>
<td>Limnology: The Study of Lakes</td>
</tr>
<tr>
<td>GEOL 1310</td>
<td>Global Environmental Remote Sensing</td>
</tr>
<tr>
<td>GEOL 1350</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>GEOL 1370</td>
<td>Environmental Geochemistry</td>
</tr>
<tr>
<td>GEOL 1380</td>
<td>Environmental Stable Isotopes</td>
</tr>
<tr>
<td>GEOL 1510</td>
<td>Introduction to Atmospheric Dynamics</td>
</tr>
<tr>
<td>GEOL 1520</td>
<td>Ocean Circulation and Climate</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</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1970</td>
<td>Individual Study of Geologic Problems (Senior Research Thesis)</td>
</tr>
</tbody>
</table>

Total Credits: 32

Geology-Chemistry

Geochemistry involves two different emphases. Low-temperature geochemistry involves study of chemical and biochemical processes on and near Earth’s surface, including land, oceans and freshwater bodies, and how the geochemical record reflects climate conditions. High-temperature geochemistry includes study of formation and evolution of the Earth and other planets, magma formation and properties, volcanic activity, and metamorphism. The AB degree requires a total of 14 courses, including 5 geoscience courses and 4 chemistry courses, and a few supporting math and physics courses. The ScB degree requires a total of 20 courses, including 7 geoscience courses and 4 chemistry courses, either with an organic or an inorganic focus, plus some supporting math and physics courses and one research course. Geoscience courses emphasize a process-oriented approach, with hands-on experiences in labs and on field trips. There is a strong emphasis on active and collaborative learning, and on practice in communication. There are many opportunities for students to do research work for pay during the academic year or in the summer, in areas such as experimental studies of magma formation, and analyzing lunar rock samples for water content.

Standard program for the A.B. degree

Recommended for students seeking a liberal education and interested in applying physical and chemical principles toward an understanding of Earth history, Earth processes, and environmental and resource issues.

Basic Supporting Science Courses

Select two courses in mathematics at the level of:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I (or more advanced)</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or more advanced)</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure</td>
</tr>
<tr>
<td>PHYS 0500</td>
<td>Foundations of Mechanics (or a more advanced course, or advanced placement)</td>
</tr>
<tr>
<td>or ENGN 0030</td>
<td>Introduction to Engineering</td>
</tr>
</tbody>
</table>

Concentration Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</td>
</tr>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes</td>
</tr>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
</tr>
</tbody>
</table>

Three additional chemistry courses

Select one of the following Series:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>&amp; GEOL 1420</td>
<td>Petrology</td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
</tr>
<tr>
<td>&amp; GEOL 1370</td>
<td>Environmental Geochemistry</td>
</tr>
</tbody>
</table>

Two additional courses from upper level geological sciences, math, or supporting sciences with approval from the department concentration advisor.

Total Credits: 42

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
</tr>
<tr>
<td>or GEOL 1370</td>
<td>Environmental Geochemistry</td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>GEOL 1420</td>
<td>Petrology</td>
</tr>
<tr>
<td>Plus one from:</td>
<td></td>
</tr>
<tr>
<td>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
</tr>
<tr>
<td>GEOL 1330</td>
<td>Global Environmental Remote Sensing</td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
</tr>
<tr>
<td>Three from:</td>
<td></td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 0500</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM 1060</td>
<td>Advanced 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>
</tbody>
</table>

**Geochemistry/Organic Option:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</td>
</tr>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes</td>
</tr>
<tr>
<td>GEOL 0240</td>
<td>Earth: Evolution of a Habitable Planet</td>
</tr>
<tr>
<td>GEOL 1130</td>
<td>Ocean Biogeochemical Cycles</td>
</tr>
<tr>
<td>GEOL 1370</td>
<td>Environmental Geochemistry</td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>Plus one from:</td>
<td></td>
</tr>
<tr>
<td>GEOL 1240</td>
<td>Stratigraphy and Sedimentation</td>
</tr>
<tr>
<td>GEOL 1330</td>
<td>Global Environmental Remote Sensing</td>
</tr>
<tr>
<td>GEOL 1380</td>
<td>Environmental Stable Isotopes</td>
</tr>
<tr>
<td>Three Chemistry courses:</td>
<td></td>
</tr>
<tr>
<td>CHEM 0350</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>CHEM 0360</td>
<td>Organic Chemistry</td>
</tr>
<tr>
<td>Plus one additional chemistry course</td>
<td></td>
</tr>
<tr>
<td>Four additional courses from upper level geological sciences, mathematics, or supporting sciences with approval of the departmental concentration advisor</td>
<td></td>
</tr>
<tr>
<td>GEOL 1970</td>
<td>Individual Study of Geologic Problems</td>
</tr>
</tbody>
</table>

**Basic supporting science courses**

Select one of the following Series:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0050</td>
<td>Foundations of Mechanics</td>
</tr>
<tr>
<td>&amp; PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0070</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>&amp; PHYS 0160</td>
<td>Introduction to Relativity and Quantum Physics</td>
</tr>
<tr>
<td>ENGN 0030</td>
<td>Introduction to Engineering</td>
</tr>
<tr>
<td>&amp; ENGN 0040</td>
<td>Dynamics and Vibrations</td>
</tr>
<tr>
<td>CHEM 0330</td>
<td>Equilibrium, Rate, and Structure (or advanced placement)</td>
</tr>
</tbody>
</table>

**Concentration courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOL 0220</td>
<td>Physical Processes in Geology</td>
</tr>
<tr>
<td>GEOL 0230</td>
<td>Geochemistry: Earth and Planetary Materials and Processes</td>
</tr>
<tr>
<td>GEOL 0250</td>
<td>Computational Approaches to Modelling and Quantitative Analysis in Natural Sciences: An Introduction</td>
</tr>
<tr>
<td>GEOL 1610</td>
<td>Solid Earth Geophysics</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
</tr>
<tr>
<td>GEOL 1580</td>
<td>Quantitative Elements of Physical Hydrology</td>
</tr>
<tr>
<td>GEOL 1620</td>
<td>Continuum Physics of the Solid Earth (related to solid Earth dynamics)</td>
</tr>
<tr>
<td>GEOL 1620</td>
<td>Continuum Physics of the Solid Earth (related to solid Earth dynamics)</td>
</tr>
<tr>
<td>GEOL 1350</td>
<td>Weather and Climate</td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
</tr>
<tr>
<td>GEOL 1610</td>
<td>Solid Earth Geophysics</td>
</tr>
<tr>
<td>GEOL 1620</td>
<td>Continuum Physics of the Solid Earth</td>
</tr>
<tr>
<td>Select two of the following:</td>
<td></td>
</tr>
<tr>
<td>GEOL 1410</td>
<td>Mineralogy</td>
</tr>
<tr>
<td>GEOL 1450</td>
<td>Structural Geology</td>
</tr>
<tr>
<td>GEOL 1580</td>
<td>Quantitative Elements of Physical Hydrology</td>
</tr>
<tr>
<td>GEOL 1620</td>
<td>Continuum Physics of the Solid Earth</td>
</tr>
</tbody>
</table>

**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 planets, Earth and the environment.

**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 4 math and applied courses; students can choose courses from both solid Earth geophysics and environmental geophysics. Geoscience courses emphasize an analytical and process-oriented approach, with hands-on experiences in labs and on field trips. Active and collaborative learning is encouraged, as is practice in written and oral communication. There are many opportunities for students to engage in research (typically in paid positions) during the academic year or in the summer, in areas such as analysis of seismic waves in subduction zones, theoretical modeling of convection in the Earth’s mantle, interpreting the cause of gravity anomalies in southern California, and remote sensing of warming in Narragansett Bay.

**Standard program for the Sc.B. degree**

This program is recommended for students interested in graduate study and careers in geophysics and related fields.
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.

Standard program for the A.B. degree

Many students elect to complete a double concentration, combining German Studies with one of the above areas, or with fields such as International Relations or Economics, Comparative Literature or History of Art and Architecture.

Knowledge of the German language is not required for declaring a concentration in German Studies. However, since language fluency is the basis for sophisticated understanding of German culture, students must meet a language requirement by the time they graduate.

Concentration Requirements

- Nine courses beyond GRMN 0400 or GRMN 0450;
- At least six of the nine courses must be at the 1000-level (or higher);
- Two of the 1000-level courses must involve writing assignments in German, and students must obtain at least a grade of B in these courses;
- At least five of the nine courses must be taken in the Department of German Studies (or four if a student spends a whole year in Germany on Study Abroad);
- Completion of a Senior Seminar during the senior year (i.e. a course from the German Studies 1900 series) as part of the five courses within the Department of German Studies; and
- If a student studies abroad for one semester, as many as four courses, in the case of two semesters, as many as five courses, from study abroad may count toward the concentration.

Honors

Candidates for honors will be expected to have a superior record in departmental courses and will have to be approved by the Department of German Studies. Honors candidates must take one additional course at the 1000-level from the German studies offerings and present an acceptable Senior Honors Thesis. The additional course may be used for preparation of the honors thesis. Students are encouraged to discuss their thesis topics with the concentration advisor no later than the third week of classes in Fall of their Senior year.

Health & Human Biology

Health and Human Biology is an interdisciplinary concentration whose goals are to provide a rigorous foundation in the biological sciences with substantive course work in humanities and social sciences within a subfield of Human Health and Disease. The program includes: background courses, a biology core courses, a set of theme courses, and a Senior Capstone activity. Background courses provide the essential foundations in chemistry, mathematics, methods, and basic biology. These support the Biology core comprised of a flexible menu of intermediate and advanced courses. A required portion of the Biology core is Genetics, which is considered a cornerstone of human biology and its interface with other fields. The Biology core underscores the related coursework within the Health and Disease Theme. The Theme courses are social science and humanities courses that form a cohesive, thoughtful grouping. Theme groupings must be approved by the advisor. A required senior capstone course or activity builds on the program’s focus.

Program Requirements

REQUIRED BACKGROUND:

Four (4) courses including:

- MATH 0090 Introductory Calculus, Part I (or equivalent placement)
- CHEM 0330 Equilibrium, Rate, and Structure
- BIOL 0200 The Foundation of Living Systems
- Statistics course chosen with advisor’s help.

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:

- Genetics, which can be fulfilled in the following ways:
  - BIOL 0470 Genetics
  - BIOL 0480 Evolutionary Biology & Cell and Molecular Biology
  - BIOL 0480 Evolutionary Biology & BIOL 0510 Introductory Microbiology

Select one course in structure/function/development such as:

- BIOL 0320 Vertebrate Embryology
- 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 0370 Experimental Evolution: Seeing Darwin in Real Time (Experimental Evolution)
- BIOL 0380 The Ecology and Evolution of Infectious Disease
- BIOL 0390 Vertebrate Evolution and Diversity
or BIOL 0400 Biological Design: Structural Architecture of Organisms
or BIOL 0410 Invertebrate Zoology
or BIOL 0415 Microbes in the Environment
or BIOL 0420 Principles of Ecology
or BIOL 0475 Conservation Medicine
or BIOL 0480 Evolutionary Biology
or BIOL 1470 Conservation Biology
or BIOL 1880 Comparative Biology of the Vertebrates
or ENV 0490 Environmental Science in a Changing World
c) Two Biology or Neuroscience courses that relate to and support the chosen theme course grouping. At least one must be at the advanced level.

THEME: (see examples below)

Four (4) appropriate and cohesively grouped courses from non-biology and non-neuroscience offerings.
The unifying theme in this program is Human Health and Disease. With advisor’s assistance, a subfocus is chosen from departments such as: CLPS, PHP, EDUC, GNSS, SOC, ANTH, HIST, SCSO, ETHN, ENV, AFRI, PPAI, BIOL 0920 series of topics courses; BIOL 1920 series of topics courses; BIOL 1070; others by approval or suggestion of the advisor. Approved courses must be suitable for concentrators, and at least one must be advanced (>1000 level in the discipline).

SENIOR CAPSTONE ACTIVITY

1) The Capstone activity must be approved by the concentration advisor and span all or part of the Senior year.
2) Honors in Human Biology is based on approved Capstone Research that yields a thesis and oral presentation, plus quality grades (see more information about Honors at the Biology website).

Total Credits 14

CAPSTONE: See description of Capstone at http://biology.brown.edu/bug/human-biology. May be fulfilled by an independent activity such as an approved relevant advanced course, or seminar, or Directed Research (e.g., BIOL 1950/Biol 1960, or an independent study in another Department if approved or an appropriate internship accompanied by a scholarly analysis mentored by a Brown faculty member.

THEME: Examples of thematic subfoci that may describe a course grouping include (but are not necessarily limited to):

- Health Behavior (Brain & Behavior)
- Health Systems Structure and Policy
- Culture and Health
- Environmental Health
- Global/International Health
- Women’s/Children’s Health
- Disability/Ethics
- Social context
- Race and ethnic disparities in disease

HONORS: See more information about Honors at http://biology.brown.edu/bug/honors.

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 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 Department of Hispanic Studies offers a standard concentration program in Hispanic Literatures and Culture, which requires comprehensive work in the Spanish language and in-depth study of Hispanic literatures and cultures. 700 level courses provide basic tools for critical analysis and opportunities for advanced Spanish language skill-development, while upper (1000) level courses offer opportunities to explore a particular author, genre, period, or special topic, and to master diverse analytical approaches. The overall requirement is a minimum of ten courses.

Prerequisite

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISP 0600</td>
<td>Advanced Spanish II (Pre-requisite)</td>
</tr>
</tbody>
</table>

Required courses: one of the following 0700 level courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISP 0730</td>
<td>Early and Contemporary Writers of Spanish America</td>
</tr>
<tr>
<td>HISP 0740</td>
<td>Intensive Survey of Spanish Literature</td>
</tr>
<tr>
<td>HISP 0760</td>
<td>Transatlantic Crossings: Readings in Hispanic Literatures</td>
</tr>
</tbody>
</table>

Up to two more 0700 level courses including, additionally:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HISP 0710</td>
<td>Culture and Advanced Spanish Language (any course in the series)</td>
</tr>
<tr>
<td>HISP 0750</td>
<td>Topics in Hispanic Culture/Civilization (any course in the series)</td>
</tr>
</tbody>
</table>

Elective 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 are reminded that up to four related courses from Study Abroad, transfer credit, and other departments at Brown (e.g., Comparative Literature, History, Ethnic Studies, Anthropology) may be applied toward the concentration in Hispanic Studies as long as they deal with Spanish or Latin American themes and/or Peninsular or Latin American culture. While there is a list of acceptable related Brown courses on the Hispanic Studies website, individual courses may be discussed with the Concentration Advisor on a case by case basis.

Total Credits = 10

E-Portfolio: All Hispanic Studies concentrators will be expected to complete the required sections of the concentration E-Portfolio in ASK. We encourage you to share your written work, your projects, and your reflections on concentration-related experiences (study abroad, community work, internships, etc.) with the wider public at Brown and beyond, but only as you see fit.

Honors Thesis or Project

Students with an excellent record in their Hispanic Studies courses will be eligible to write an Honors Thesis or write and produce an Honors Project. Typically the Honors Thesis is a major research paper of approximately 40 to 80 pages in Spanish, depending on the topic and treatment necessary. Alternatively, a student may, with prior permission of the Hispanic Studies Concentration Advisor, present a film, gallery exhibition, or other appropriate project, together with a paper that clearly demonstrates the academic foundations and relevance of the project.

Students should begin thinking about an Honors Thesis or Project in their third year at Brown. Those who study in Spain or Latin America in the spring of their junior year may want to write to professors they might want to work with, indicating their potential thesis interests. Ideally, students will begin to research topics and prepare a reading list for the thesis during the summer before their senior year.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
The Department expects students to have two readers for their honors thesis or project. Typically, the first reader and advisor for the project will be a faculty member in Hispanic Studies. Both readers and the students will agree on the amount of consultation required and deadlines for submitting drafts and completing readings. It is important that all parties have a clear sense of procedures and deadlines.

Students planning to write an Honors Thesis in Hispanic Studies must submit the titles and abstracts of their project, along with the names and signatures of their advisor and second reader by October 15. (Link to Proposal Form). If the honors proposal is accepted, students will register in HISP 1980 for the spring semester.

Most students require two semesters to plan and complete an Honors Thesis or Project. Students will complete at least an outline and a bibliography for their project during the fall semester. Optimally, a substantial portion of the writing will also be submitted to the advisor before Winter Break. The second semester is devoted to completing the writing or the project work, and a full draft of the thesis or project must be submitted to the advisor by March 15.

The final, complete version of the thesis or project must be submitted by April 15. Students should submit one copy to each reader and one electronic and one hard copy to the Department.

**Important dates:**
- October 15: Honors Thesis Proposal due
- December 15: Detailed outline and bibliography due
- March 15: Full draft of thesis to Advisor
- April 15: Final, complete version of the thesis due

**Concentration Advisor(s):**
- Fall 2014 -- Professors Julia Chang and Sarah Thomas are Concentration Advisors for the Department.
- Spring 2015 -- Professor Beth Bauer is the Concentration Advisor for the Department.

**Hispanic Studies**

**This concentration is no longer available for new declarations effective Fall 2014. New declarations would fall under Hispanic Literatures & Culture**

The Department of Hispanic Studies offers a standard concentration program in Hispanic Studies with a track in Hispanic Language, Literature and Culture. This program provides students with a comprehensive view of Hispanic (Spain and Latin America) language, literature and culture. Both introductory and upper-level courses offer opportunities to explore a particular author, genre, period, or special topic, and to learn and use diverse analytical approaches. The overall requirement is a minimum of ten courses.

**Prerequisite:**
- HISP 0600 Advanced Spanish II

**Required courses:**
- HISP 0730 Early and Contemporary Writers of Spanish America 1
- HISP 0740 Intensive Survey of Spanish Literature 1

Select one of the following:
- A course from the HISP 1900 series
- HISP 1990 Senior Conference (for students writing an honors thesis)

**Elective courses:**
- Select at least eight 1000-level courses which provide more specific preparation in major areas of Hispanic Studies. Students should consider taking one upper-level language course. 2

**Total Credits:** 10

---

1 Introduces students to standards and methods of interpretation in the field, as well as to major works, genres, and movement in the literatures and cultures of both sides of the Atlantic.

2 Four of the 1000-level courses cover the principal areas of Hispanic Studies - from medieval and early modern works all the way to works in the twenty-first century. In consultation with the concentration advisor, students also choose from four 1000-level elective courses that best suit their specific needs and interests. Concentrators are reminded that courses from Comparative Literature, History and other disciplines may be applied toward the concentration in Hispanic Studies as long as they deal with Spanish or Latin American themes, or with questions or topics that are pertinent for the study of Peninsular or Latin American culture. Individual courses may be discussed with the Concentration Advisor on a case by case basis. Up to two courses from outside of Hispanic Studies may be counted toward the concentration.

As many as four courses take abroad may be applied towards the concentration in Hispanic Studies. These courses must meet the requirements of the concentration and be approved by the Concentration Advisor (note that they must first be approved for Brown University credit). If you are planning to fulfill concentration requirements with courses taken abroad, please keep the syllabi and work (exams, papers) for evaluation.

**Honors**

Students are normally required to have an A average in their concentration courses before being considered for the Honors Program. Those interested in writing a Senior Thesis should discuss this possibility with their instructor they want as their thesis advisor during the spring semester of their junior year. Applications are due by the third week of a student’s seventh semester at Brown.

**History**

History is the study of how societies and cultures across the world change over time. History concentrators learn to write and think critically, and to understand issues from a variety of perspectives. The department offers a wide variety of courses concerned with changes in human experience through time, ranging from classical Greek and Roman civilizations to the histories of Europe, the Americas, and Asia. While some courses explore special topics, others concentrate on the history of a particular country (e.g. Russia or France) or period of time (e.g. the Middle Ages or the Renaissance). By taking advantage of our diverse course offerings, students can engage in and develop broad perspectives on the past and the present.

1. **Basic Requirement:** A concentration in History consists of a minimum of ten semester-long courses; of these, at least eight (seven in the case of students who spend more than one semester at another institution; see "Transferring Courses" below) must be offered by the Brown University History Department, including cross-listed courses.

2. **Introductory Courses:** Students may count no more than two lecture surveys numbered 0520 or lower and only one HIST 0970 or HIST 0980 seminar toward the concentration requirements. It is recommended that concentrators in their first or second years take a HIST 0970 series seminar or a HIST 0980 series seminar for a seminar-based introduction to historical reasoning, discussion, and writing.

3. **Field of Focus:** Upon declaring a concentration in History, students must define the area that will be the primary focus of their program. The primary field of focus must include minimum of four courses. The field may be defined by geographical regions (see #4), by geographical regions with thematic or chronological emphases, or by topic.

Students who choose a geographical focus must provide a thematic or chronological rationale for the coherence of courses with a broad chronological span. Students who are interested in a thematic or transnational focus (such as Science, Technology, Environment and Medicine or the Ancient World) may include courses from different geographic areas. All students should consult a concentration advisor early in the process. All fields are subject to approval by the concentration advisor.

4. **Geographical Distribution:** Concentrators must distribute nine of the ten required courses as follows: four courses in the primary...
geographic area. Thereafter, five courses in two or more secondary areas, with a maximum of three in any of these areas. Comparative and transnational courses may count for the geographical requirement with the approval of the concentration advisor. The geographic areas are:

- Africa
- East Asia
- Europe
- Latin America and the Caribbean
- Middle East and South Asia
- North America

5. **Chronological Distribution**: All History Department courses are designated “P” for pre-modern, “M” for modern, and “E” for either pre-modern or modern. Concentrators must complete at least three courses in the pre-modern period and three courses in the modern periods. Two of the courses must be designated “P” and two must be designated “M”. Courses designated “E” may fulfill the requirements for a third course in each category.

6. **Capstone Seminar**: All concentrators must complete at least one capstone seminar (HIST 1960 or HIST 1970 series seminar). These seminars are designed to serve as an intellectual culmination of the concentration. They provide students with an opportunity to delve deeply into a historical problem and to write a major research and/or analytical paper which serves as a capstone experience. Ideally, they will be taken in the field of focus and during the student’s junior or senior year. Students considering writing a senior honors thesis are advised to take an advanced seminar in their junior year.

7. **Honors**: To be admitted to the honors program, students must have achieved two-thirds “quality grades” in History department courses. A “quality grade” is defined as a grade of “A” or a grade of “S” accompanied by a course performance report indicating a performance at the “A” standard. Honors is normally a three-semester process, with students taking HIST 1992, “History Honors Workshop for Prospective Thesis Writers,” one semester and HIST 1993, “History Honors Workshop for Thesis Writers,” for two semesters. Both classes will be offered every semester, so students may begin the process in either their 5th or 6th semester.

HIST 1992 is strongly recommended but not required. The class may count as one of the 10 courses required for graduation in history. Students may be admitted into HIST 1993 in one of two ways.

2. By submitting a thesis prospectus of equivalent quality (A- or above) no later than the first day of their 7th semester. This method of entry into HIST 1993 is geared especially, but not limited to students who have spent their junior year away from Brown.

Students who take HIST 1992 in the 5th semester can finish the thesis in the 7th semester. Students who take HIST 1992 in the 6th semester will finish it in the 8th semester.

Students who contemplate enrolling in the honors program in History should consult the department website. They are also encouraged to meet with the Director of Undergraduate Studies, who serves as the honors advisor.

8. **Transferring Courses**: The History Department encourages students to take history courses at other institutions, either in the United States or abroad, as well as history-oriented courses in other departments and programs at Brown. Students may apply two courses taken in other departments/programs at Brown to the ten-course minimum for the History concentration. Students who spend one semester at another institution may apply to their concentration a maximum of two courses from other departments or institutions, and those who spend more than one semester at another institution may apply to their concentration a third course transferred from another institution. The total number of courses from other departments or institutions may not exceed three.

Students wishing to apply such courses must present to their concentration advisor justification that those courses complement some aspect of their concentration. Courses from other Brown departments may not be applied toward the chronological distribution requirement; courses transferred from other institutions may be applied toward the chronological distribution requirement so long as they clearly are history courses.

It is normally expected that students will have declared their intention to concentrate in History and have their concentration programs approved before undertaking study elsewhere. Students taking courses in Brown-run programs abroad automatically receive University transfer credit, but concentration credit is granted only with the approval of a concentration advisor. Students taking courses in other foreign-study programs or at other universities in the United States must apply to the Transfer Credit Advisor.

Final transfer and concentration credit will not be granted until the student successfully completes the course(s) and returns to Brown. Approval by the department advisor for transfer credit will be contingent on satisfactory course content and performance (to be demonstrated by documents such as a transcript showing the grade, syllabi, notes, papers, exams, etc).

9. **Regular Consultation**: Students are strongly urged to consult regularly with their concentration advisor or a department advisor about their program. During the seventh semester, all students must meet with their concentration advisor for review and approval of their program.

### History of Art and Architecture

The concentration in History of Art and Architecture introduces students to the history of art, architecture, and visual culture. Students in HIAA explore Western and non-Western 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, architecture), but students may choose to create their own program of study. Concentrators will receive essential training in perceptual, historical, and critical analysis. Concentrators often study abroad for first-hand knowledge of works of art and monuments as well as for exposure to foreign languages and cultures. Because foreign language skills are essential for pursuing art historical studies in a professional environment or in graduate school, HIAA requires two years of foreign language study.

### 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.

Our general survey in history of art and architecture (HIAA 0010) is an excellent foundation for the concentration. It is 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 conductor’s program of study.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Four core general lecture courses, numbered HIAA 0020 - HIAA 0940. The courses should be distributed among three of the seven available areas of the discipline: Ancient; Medieval; Islamic; East Asian; Latin American; Early Modern (ca. 1400-1800); Modern, Contemporary 1

Two core seminar courses, numbered between HIAA 1040 and HIAA 1890. 1

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. 2

Total Credits 10

1 The six core lecture and seminar courses must be taken in the History of Art and Architecture department and cannot be replaced with independent study, honors thesis or classes taken in other departments, universities, or high schools.

2 A maximum of two (2) credits may be allowed for courses taken at other universities (transfer credits or from other study abroad) or courses that also count toward a second concentration. No concentration credit will be granted for AP/A-level scores, or for language classes.

Architectural Studies Track

The Optional Architectural Studies track within the History of Art and Architecture concentration blends a variety of disciplines toward the study of buildings and the built environment. The concentration prepares students for the continued study of architecture and the history of architecture in graduate school as well as careers in related areas such as urban studies.

Because the architectural studies program was especially designed for students wishing to gain greater experience in the practical skills necessary for a career in architecture or a related field, concentrators are required to take a course in design from the Visual Arts Department, the Rhode Island School of Design or an introduction to architectural design, theatre set design at Brown University.

Four lecture courses. These courses will be numbered between HIAA 0020 and HIAA 0940 and will be marked with an “A” in the course description. The courses must be distributed over three of seven areas in architectural history: Ancient; Medieval; Islamic; East Asian; Latin American; Early Modern (ca. 1400-1800); Modern/Contemporary.

One seminar or independent study in architectural history, numbered between HIAA 1100 and HIAA 1890, and marked with an “A” in the course description. 1

A project seminar from the HIAA 1910 series. This must be taken in the junior or senior year. 1, 2

One studio art course in design 3

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. 4, 5

Total Credits 10

1 The two seminars cannot be replaced with independent study, honors thesis, or classes taken in other departments or universities.

2 In years where no project seminar is offered, any seminar that qualifies for architectural studies can become the starting point for a senior project.

3 The studio course may be taken at Brown, RISD, Harvard Career Discovery and similar six week + summer programs.

4 The non-cross-listed courses include but are not limited to MATH 0090, MATH 0100, PHYS 0030, PHYS 0040, ENGN 0030, Urban Studies and Engineering courses, and scenic design and technical production courses offered by the department of Theatre Arts and Performance Studies.

5 A maximum of two credits may be awarded for courses taken at other universities or for courses that count toward a second concentration. No concentration credit is awarded for high school AP/A-level courses or for language courses.

The below pertains to ALL concentrators in the department:

Language Requirement

You will be expected to demonstrate reading proficiency in a language other than English. By learning the language of another culture you will gain a deeper understanding of its art, literature and history. Aside from this, knowledge of a foreign language will equip you with a skill essential for pursuing art historical studies in a professional environment or graduate school. The requirement can be fulfilled by either passing an 0500 level language course at Brown or by demonstrating an 0500 level reading ability in a placement test administered by Brown University language department (Students who declared their concentration before August 2013 are expected to demonstrate proficiency at the 0400 level).

Self Assessment

All concentrators are required to write an essay when they file for the concentration that lays out what they expect to gain from the course of study they propose. All second semester seniors will be required to write a final essay that takes measure of what they have learned from the concentration, including their capstone and other experiences relating to their study of the history of art and architecture. For students doing a capstone, their capstone director will read this essay. A department subcommittee will read essays written by students not electing to do a capstone. The self-assessment should be turned in with a revised list of courses actually taken and the final paperwork for concentration approval.

Capstone Project

At the beginning of your senior year you will be actively encouraged to propose and undertake a Capstone Project. The Capstone Project is intended to challenge you with an opportunity to synthesize at a high level of achievement the knowledge and understanding you have gained by concentrating in the History of Art and Architecture or Architectural Studies. To propose and work on a Capstone Project you need the support of a faculty sponsor. Capstone Projects embrace many possibilities. You can perfect a seminar paper in which you have developed a strong interest. You can participate in a graduate seminar to which the instructor has admitted you. You can serve as an undergraduate TA. You can work as an intern in museums and auction houses such as Christie’s. You might work on an archaeological excavation. You can participate in the Honors Program. Beyond these opportunities, the Department is open to other approaches. You should work with a faculty sponsor and with the Undergraduate Concentration Advisor to decide what will work best for you.

Honors

The Honors program in History of Art & Architecture and Architectural Studies will be administered as follows: accepted students will sign up for HIAA 1990 in the Fall and in the Spring. In the Fall, students will meet regularly with the whole Honors group and HIAA faculty to discuss methodology and general research and writing questions. In the Spring, students will continue to meet to present their research in progress to each other for comment and feedback. They will also be meeting regularly with their advisors and second readers throughout the year. Finished drafts of the thesis (which will generally be no more than 30-35 pages in length (exceptions to be determined in consultation with the instructor), not counting bibliography and visual materials) will be due to the advisor and second reader on April 1 of the Spring semester. Comments will be returned to the students for final corrections at that point. There will be a public presentation of the Honors work at the end of the Spring semester. Students wishing to write an honors thesis should have an ‘A’ average in the concentration. It is advisable for them to have taken at least one seminar in the department and written a research paper before choosing.
to undertake a thesis. While acceptance into the Honors program depends on the persuasiveness of the thesis topic as well as the number of students applying, students may refine their proposals by speaking in advance with potential advisors. No honors student may take more than four classes either semester of their senior year—being considered one of your four classes. Students who are expecting to graduate in the middle of the year are encouraged to discuss a different capstone project with individual advisors or the concentration advisor.

Honors Application Process

During the second semester of the junior year all concentrators will be invited to apply for admission to the Honor Program in History of Art and Architecture and Architectural Studies.

Admission to the Honors Program

1. To be admitted to the Honors Program you should have produced consistently excellent work and maintained a high level of achievement in all your concentration course. You should have earned an A grade in most of your concentration courses.

2. The key project for honors is to write an honors thesis. When you apply for admission you will be asked to submit a proposal of no more than two double-spaced pages that states the topic (subject and argument) of the research to be undertaken as clearly as possible, and a one-page bibliography of the most relevant books and major articles to be consulted for the project. This three page application should be submitted, along with a resume and a printout of the student’s most recent available transcript and submitted to the Department with a short cover letter stating who you feel the most appropriate advisor and second readers are for the thesis and why, and what your preparation is for this project. Clarity and brevity are considered persuasive virtues in this process. Applicants will be notified about the success of their applications at the end of the semester.

3. For admission to the Honor Program you must include with your proposal a letter of support from a faculty member of the History of Art and Architecture Department who has agreed to serve as your thesis advisor. You should discuss the thesis topic with your advisor before you submit your proposal. During the process of researching and writing you will meet regularly with your advisor to discuss your work.

Writing the Honors Thesis

1. If you are accepted into the Honors Program you will register for HIAA 1990 during the two semesters when you are working on a thesis. This is a seminar led by the Department Undergraduate Concentration Advisor in which all honors students meet once a month to present the current progress of their work. It is a valuable opportunity to share ideas and receive feedback from your fellow honors students and faculty alike. The honors seminar also offers a practical framework around which you can organize the progress of your work.

2. You will meet regularly with your thesis advisor and with a second reader to develop your ideas and writing.

3. Finished drafts of the thesis, which will generally be no more than 30-35 pages in length (exceptions to be determined in consultation with the instructor), not counting bibliography and visual materials, will be due to the advisor and second reader by April 1 of the Spring semester or by November 1 of the Fall semester if you plan on graduating in December. Comments will be returned to the students for final corrections at that point. There will be a public presentation of the Honors work at the end of the Spring semester.

Independent Concentration

Although Brown offers nearly 80 concentrations, a small number of students have academic interests that fall beyond the scope of these offerings. Brown allows these students to design their own concentrations through the Independent Concentration (IC) program. The IC program is for exceptionally dedicated students who are willing to spend extra time and effort creating a "new" concentration, representing a coherent field of study that Brown does not offer. Such fields may include emerging topics, such as "sustainable technology," or broader interdisciplinary areas, such as "Deaf and Disability Studies." Students interested in pursuing an Independent Concentration are strongly encouraged to review the IC offering. Brown allows these students to design their own concentrations through the Independent Concentration (IC) program. The IC program is for exceptionally dedicated students who are willing to spend extra time and effort creating a "new" concentration, representing a coherent field of study that Brown does not offer. Such fields may include emerging topics, such as "sustainable technology," or broader interdisciplinary areas, such as "Deaf and Disability Studies." Students interested in pursuing an Independent Concentration are strongly encouraged to review the IC offering.

Pre-Approved Tracks: If the track is jointly offered it requires sign off from both departments. Prospective concentrators should complete the declaration process in ASK by selecting Independent Concentration, followed by the appropriate track and track advisor.

Modern Culture and Media-French Track (This pre-approved track has been discontinued effective Spring 2014)

This track is offered jointly by the Department of French Studies and the Department of Modern Culture and Media. It is intended for students who wish to receive special preparation in French language and literature, with emphasis on contemporary semiotic theory, and those students whose primary interest is in theory and who wish to strengthen their knowledge of French language, literature, and culture. In addition to a Senior Thesis, students will take five courses in French and five in Modern Culture and Media. Students wishing to declare this concentration must select an advisor from each of the two sponsoring departments.

Required courses:

Select two of the following:

- FREN 0500 Writing and Speaking French I
- FREN 0520 Introduction to the Literary Experience
- FREN 0600 Writing and Speaking French II
- A course from the FREN 1510 series

Three upper level courses in French literature, language and civilization.

MCM 0110 Introduction to the Theory and Analysis of Modern Culture and Media

Two or three additional courses in semiotic theory

One or two courses in semiotic production

Total Credits

9-11

Hono...
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0110</td>
<td>Introduction to the Theory and Analysis of Modern Culture and Media</td>
</tr>
<tr>
<td>MCM 0230</td>
<td>Digital Media</td>
</tr>
<tr>
<td>MCM 0240</td>
<td>Television Studies</td>
</tr>
<tr>
<td>MCM 0250</td>
<td>Visuality and Visual Theories</td>
</tr>
<tr>
<td>MCM 0260</td>
<td>Cinematic Coding and Narrativity</td>
</tr>
<tr>
<td>MCM 1110</td>
<td>The Theory of the Sign</td>
</tr>
</tbody>
</table>

A course from the GRMN 0900 series

**Requirements**

Two courses in German Studies at the 1000-level with topics relevant to the focus area.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRMN 1990</td>
<td>Senior Conference</td>
</tr>
<tr>
<td>or MCM 1990</td>
<td>Honors Thesis/Project in Modern Culture and Media</td>
</tr>
</tbody>
</table>

Select six of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1370</td>
<td>Germany, 1914 to the Present (strongly recommended)</td>
</tr>
<tr>
<td>COLT 1210</td>
<td>Introduction to the Theory of Literature (strongly recommended)</td>
</tr>
<tr>
<td>HIAA 0850</td>
<td>Modern Architecture</td>
</tr>
<tr>
<td>A course from the GRMN 1440 series: Studies in Literary Genre</td>
<td></td>
</tr>
<tr>
<td>A course from the GRMN 1450 series: Seminars in German Literature</td>
<td></td>
</tr>
<tr>
<td>A course from the MCM 1200 series: Special Topics in Modern Culture and Media</td>
<td></td>
</tr>
<tr>
<td>A course from the MCM 1500 Series: Senior Seminars in Modern Culture and Media</td>
<td></td>
</tr>
<tr>
<td>PHIL 1660</td>
<td>Metaphysics</td>
</tr>
</tbody>
</table>

**Honors:**

- Honors Thesis: will require a thesis and will normally be undertaken by signaling intent during the junior year.

**Statistics Track**

Statistics has a theoretical core surrounded by a large number of domains of application in diverse fields, including economics, psychology, biology and medicine, sociology, population sciences, government, anthropology, astronomy, physics, chemistry, geology, engineering, and computer science. At Brown, graduate training in Biostatistics is available in the Department of Biostatistics and in Mathematical Statistics in the Division of Applied Mathematics. In addition, several other departments are offering introductory and advanced courses in statistical methodology, including the Departments of Economics, Sociology, Cognitive, Linguistic and Psychological Sciences, Political Science and Computer Science.

The Undergraduate program in Statistics, established in 1997, is an interdepartmental program, administered by the Department of Biostatistics and leading to the Sc.B. degree. The program is constructed on several premises: that statistics is a scientific discipline in its own right, with its characteristic methodology and body of knowledge; that it is essentially concerned with the art and science of the analysis of data; and that it is best taught in conjunction with specific, substantive applications. To this end, the concentration is designed to provide a foundation of basic concepts and methodology, requiring students to take core courses in the discipline itself, and to expose students to a cross-section of statistical applications, through courses (of their own selection and subject to approval) in the social, biological, and natural sciences. In a senior honors thesis, each student will be required to carry out a major project of statistical data analysis in one of these disciplines. The program prepares students for careers in industry and government, for graduate study in statistics or biostatistics and other sciences, as well as for professional study in law, medicine, business, or public administration.

**Requirements in addition to Senior Thesis:**

The program begins with a foundation in mathematics and computing, combined with an elementary introduction to statistical thinking and practice. A set of three core courses builds on this foundation by providing a comprehensive account of the fundamentals of statistical theory and data analysis. At this point, the students in the concentration are ready to delve into more advanced material covering important areas of statistical methodology. In addition to formal coursework, students will have opportunities to acquire practical experience in study design, data management, and statistical analysis by working as undergraduate research assistants in projects in one of the participating academic departments or research centers at Brown.

The program requires **twelve** one-semester courses and participation in the senior seminar. The required courses are as follows:

**Foundations courses:**

**Mathematics**

- Three courses, including courses in multivariate calculus and linear algebra

**Computing**

- APMA 0160 Introduction to Scientific Computing

**Introduction to statistical thinking and practice**

Select one of the following:  

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0230</td>
<td>Digital Media</td>
</tr>
<tr>
<td>MCM 0240</td>
<td>Television Studies</td>
</tr>
<tr>
<td>MCM 0250</td>
<td>Visuality and Visual Theories</td>
</tr>
<tr>
<td>MCM 0260</td>
<td>Cinematic Coding and Narrativity</td>
</tr>
<tr>
<td>MCM 1110</td>
<td>The Theory of the Sign</td>
</tr>
</tbody>
</table>

At least one course from the MCM 1200 series

At least one course from the MCM 1500 series

Total Credits: 11

Students are encouraged to consider study at the University of Bologna through the Brown Program in Bologna, though this is by no means a requirement for fulfillment of the program. Courses taken at the University of Bologna may substitute for Italian Studies and MCM courses (no more than 2 from either department) at the discretion of the student’s advisors.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Core Courses in Theory and Data Analysis

- **PHP 2510** Principles of Biostatistics and Data Analysis 1
- Choose one of the following series: 2
  - APMA 1650 Statistical Inference I
  - APMA 1660 and Statistical Inference II
  - MATH 1610 Probability
  - MATH 1620 and Mathematical Statistics

### Advanced Courses in Statistical Methods

- **APMA 1690** Computational Probability and Statistics 1
- **PHP 2511** Applied Regression Analysis 1
- Two electives from the following courses: 2

#### Social Sciences:
- **ECON 1630** Econometrics I
- **ECON 2030** Introduction to Econometrics I
- **ECON 2040** Econometric Methods
- **ECON 2630** Econometric Theory
- **ECON 2640** Microeconometrics
- **SOC 2010** Multivariate Statistical Methods I
- **SOC 2220** Advanced Quantitative Methods of Sociology Analysis
- **SOC 2230** Techniques of Demographic Analysis
- **SOC 2960G** Spatial Data Analysis Techniques in the Social Sciences

#### Biostatistics:
- **APMA 1710** Information Theory
- **APMA 2810R** Computational Biological Methods for Gene/Protein Networks and Structural Proteomics
- **BIOL 1420** Experimental Design in Ecology
- **PHP 2620** Statistical Methods in Bioinformatics, I
- **PHP 2200** Intermediate Methods in Biostatistics
- **PHP 2520** Statistical Inference I
- **PHP 2030** Clinical Trials Methodology
- **PHP 2603** Analysis of Longitudinal Data
- **PHP 2530** Bayesian Statistical Methods

### Total Credits

12

Prospective students will be able to obtain Advanced Placement credit for the requirements in mathematics, computing, and introductory statistics. Students who have already completed an introductory course in statistics will be granted permission to proceed to Level II core courses if they meet the prerequisites in mathematics and computing.

**Honors:** Honors work in the Independent Concentration, Statistics track requires the completion of a senior thesis and a superior record in the program.

The program is administered by the Department of Biostatistics, located at 121 South Main Street, 7th floor.

For additional information please contact: Roe Gutman, Box G-S-121-7; Telephone: 401-863-2682; Fax: 401-863-9182; e-mail: Roe Gutman

### 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.

### Requirements

The IR concentration requires 14 courses and the equivalent of 3 years of study in a second language.

#### Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH 0110</td>
<td>Anthropology and Global Social Problems</td>
<td>1</td>
</tr>
<tr>
<td>ECON 0110</td>
<td>Principles of Economics</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1900</td>
<td>American Empire Since 1890</td>
<td>1</td>
</tr>
<tr>
<td>POLS 0400</td>
<td>Introduction to International Politics</td>
<td>1</td>
</tr>
<tr>
<td>or POLS 0200</td>
<td>Introduction to Comparative Politics</td>
<td></td>
</tr>
<tr>
<td>SOC 1620</td>
<td>Globalization and Social Conflict</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Track Requirements (five courses from ONE track distributed between the sub-themes: 2

### Political Economy and Society:

- **ECON 1110** Intermediate Microeconomics
- **ECON 1210** Intermediate Macroeconomics
- **ECON 1500** Current Global Macroeconomic Challenges or **ECON 1540** International Trade or **ECON 1550** International Finance
- **ANTH 1324** Money, Work, and Power: Culture and Economics
- **INTL 1801M** Globalization and the Rise of Asia
- **POLS 1020** Politics of the Illicit Global Economy
- **POLS 1420** Money and Power in the International Political Economy

### Regional Focus 3

2

### Research Methods 4

1

### Capstone Course, from the following options: 5

1

- Honors thesis (two courses: INTL 1910, INTL 1920)
- Senior seminar paper (see website for approved senior seminars)
- Directed research project (Independent Study)

### Total Credits

14

1 Required for all students, preferably to be taken during their freshman or sophomore years. Advanced Placement credit does not count toward the concentration.

2 This is only a subset of the more comprehensive list of applicable courses.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Both courses must be on the same area. Content must build on track of study. Students are required to link these with language study.

Prior to 7th semester. Quantitative or qualitative course from approved list.

Must be taken senior year. Must incorporate language skills.

Details lists of courses that satisfy these requirements may be obtained from the IR program website: www.watsoninstitute.org/IR (http://www.watsoninstitute.org/IR).

The program has a director, an associate director/concentration advisor, and a faculty advisor for each track to assist students in planning their academic programs.

Italian Studies

Inherently interdisciplinary, the Italian Studies concentration allows students to strengthen their language skills in Italian and deepen their knowledge of Italian literature, history, art, and culture. Most concentrators have some background in Italian language. However, it is possible to concentrate in Italian studies without having studied the language before coming to Brown, although doing so requires an early start. After fulfilling the language requirement by completing up to Italian 0600 (or the equivalent), students enroll in a variety of advanced courses, reflecting the interdisciplinary nature of the concentration. Junior concentrators often study abroad in the Brown Program in Bologna. All senior concentrators participate in the “senior conference” by delivering brief presentations on academic topics of their choice in Italian Studies. Concentrators might also pursue capstone research, writing, or multimedia projects.

The concentration requires that students demonstrate proficiency in the Italian language by completing up to ITAL 0600 (or the equivalent in Bologna). ITAL 0600 is the first language course that counts toward the eight required courses for the concentration. At least four of the eight courses should be taken in Italian.

Italian Studies Concentration and the Brown Program in Bologna

Concentrators who enroll in the Brown in Bologna program should fulfill the requirements according to the following sequence: prior to departure, the student should complete the level of Italian language study required (ITAL 0300) and enroll in one of the courses in the four distribution areas — Italian literature; Italian History; history of Italian art and architecture; film or performance. Upon return from Bologna, the student should enroll in at least one advanced course offered by the department, preferably a course taught in Italian. Any student returning from the Bologna program must enroll in a course above the language level of ITAL 0600. Credits toward the Italian Studies concentration may also be transferred from the Brown in Bologna Program. Concentrators may count three courses per semester toward the concentration (or six courses total for the year), although the course content must focus on Italy if the student wishes to count the course toward the concentration requirements. Concentrators should consult the concentration advisor to know which courses may or may not transfer as credits toward the concentration.

Honors in Italian Studies

Concentrators are encouraged to expand their understanding of Italian language, history, or culture through independent research that will result in a thesis, a translation, or a multimedia project, developed in consultation with the undergraduate concentration advisor and the individual faculty member who will advise the student’s project. The Honors thesis in Italian Studies is a two-semester thesis. Students who intend to complete an honors project should enroll for their first semester in ITAL 1922 (Independent Study), and have their project approved by their advisor by October 15. During the second semester, honors students enroll in ITAL 1990 and continue to work with their advisor to complete the project. ITAL 1990 does not count as one of the eight courses required for the concentration.

Capstone Experiences in Italian Studies

A Capstone experience in Italian Studies would consist of a course or project that a student, in consultation with the undergraduate advisor,

feels would integrate the various intellectual engagements of this interdisciplinary concentration, and constitute a culminating experience in Italian Studies at Brown. Such experiences are strongly encouraged, and should be arrived at through conversations with the concentration advisor or a professor in the department. This could include the Brown Program in Bologna, typically taken in the Junior year, and/or the honors thesis in the senior year. However, students may also apply early in the Fall or Spring semester of their senior year for permission to designate one of their courses (1000-level or above) a Capstone course. In consultation with the professor, students in Capstone courses complete an independent research, writing, or multimedia project that is well beyond the required assignment for the course. ITAL 1920 (Independent Study) may also be designated a Capstone course with the permission of the instructor.

Judaic Studies

Jews have lived and flourished over thousands of years in a variety of social contexts, stretching from the Land of Israel and the eastern Mediterranean to Asia, Africa, Europe, and the Americas. Concentrators will have the opportunity to study Jews in these contexts, getting to know their social structures, and what they have created. The subjects of study cover an astonishing range, including history and society, Jewish law and philosophy, and Jewish literature and ritual. Students will learn to unlock this wealth in both the ancient and the modern worlds through a number of academic disciplines - History, Religious Studies, and Literature. These also provide tools for studying and analyzing human societies and cultures in general, for which Jewish experiences provide an important perspective.

PROGRAM IN JUDAIC STUDIES

Required Coursework for concentrators declaring in Spring 2013 and beyond

The Program in Judaic Studies offers two paths (detailed below). Please note that the following apply to each concentrator:

1) All students are required to take a total of ten courses.

2) All students must take one full year of Hebrew (two of the ten required courses). Generally, this requirement will consist of two courses in Elementary Hebrew (JUDS 0100/JUDS 0200) or the equivalent as determined by a proficiency examination. Fulfillment of the Hebrew requirement through examination does not reduce the requirement to take ten courses for the concentration.

3) Upon declaring a concentration in Judaic Studies, each student must define his or her primary disciplinary track (History, Religious Studies, or Language/Literature). Concentrators will then be assigned a faculty mentor in that discipline (within the Judaic Studies faculty) to help students select courses and construct a coherent concentration plan.

Program in History or Religious Studies:

For this track, students are expected to complete a minimum of four courses in their area of disciplinary focus (History or Religious Studies), at least one of which must and no more than two of which may be outside the Program in Judaic Studies in the department of disciplinary focus (preferably methods courses, such as in the History department or RELS 1000). Students in this track, in consultation with the concentration adviser and faculty mentor, may apply up to two additional Hebrew language courses (JUDS 0300, JUDS 0400, or JUDS 0500) to the additional four required courses for the concentration.

Program in Language/Literature:

For this track, students are expected to complete five courses in Hebrew language (JUDS 0100/JUDS 0200; JUDS 0300/JUDS 0400; JUDS 0500). In addition, students will take Israeli Literature in Hebrew (JUDS 1810) and one further course in Judaic Studies (within the disciplinary focus). Two additional courses in the disciplinary focus, at least one of which must be outside the Program in Judaic Studies in a department of shared disciplinary focus (e.g. English or Comparative Literature), are also required. Fulfillment of the Hebrew requirement through proficiency examination does not reduce the requirement to take ten courses for the concentration.

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

7) Double concentrators may count up to two courses that they have used to complete their concentration requirements in another department towards their concentration in Judaic Studies.

**Honors Program**

Any student who wishes to engage more deeply in research related to Judaic Studies in any of its disciplines or branches is invited to consider writing an Honors Thesis.

**The Honors Thesis**

The goal of the thesis is to add to the existing scholarship in the field of Jewish 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 reader 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 Jewish studies, with reference to previous research on the subject. The proposal should detail the questions to be asked and the kind of argument that will be made as well as explaining the primary sources and research methodology that will be employed. The proposed research strategy (i.e. the stages by which research and writing will be done) and timetable should be appended together with a brief, one page bibliography of primary sources and major research to be consulted.

Once the advisor is satisfied with the proposal, the student will be considered fully accepted into the Honors program and can enroll in the required independent study course by the last day to add a course in the fourth week of the term.

**Research and Writing**

It is the responsibility of the student to carry out the research program outlined in the proposal, as well as to write the thesis in an organized and timely fashion. During the process of research and writing, the advisor will continue to work closely with the student, providing guidance on research methods and suggesting further secondary reading. A regular meeting schedule will be set up to help the student meet the short- and long-term deadlines he or she has set. The advisor will also evaluate the progress of the research, providing any necessary direction and detailed feedback on written drafts.

The second reader will also be available to provide a measure of input and guidance during the process of research and writing. This may be particularly important in those areas where the primary advisor has limited expertise. The second reader may also be willing to help with giving feedback on various sections of the thesis drafts. All these roles should be determined by a process of consultation involving the advisor, the student, and the second reader him/herself.

The final thesis should have a complete scientific apparatus - citations and a full bibliography - in a form determined by the advisor. It should be submitted no later than April 15 for May graduates and November 15 for December completers.

**Assessment**

The thesis will be assessed independently by the advisor and the second reader in written reports. In order to receive Honors, it should be deemed excellent according to the following standards:

- Is the scope of the work appropriate for an Honors thesis?
- To what extent does it qualify as original research?
- To what degree does it sustain an analytic argument throughout?
- To what 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 adviser. [Tel: 401.863.3912] or Judaic@brown.edu.

**Required Coursework for concentrators declaring prior to Spring 2013**

- Six Topical Courses in Judaic Studies
- JUDS 0110 (Now JUDS 0100) and JUDS 0120 (Now JUDS 0200) Introduction to Modern Hebrew
- Two additional JUDS courses either topical or language

**Topical courses (non-language courses)**
Upon declaring a concentration in Judaic studies, students must define the area of study that will be the primary focus of their program. The field may be defined as an historical period (ancient/modern), as a discipline (humanities/social science), or as a topic (religion, culture, history, language/literature, etc.). Students are expected to complete a minimum of four courses in their area of focus, but the final number will be finalized in discussion with the concentration advisor.

Of the six required topical courses, four must be taken in the Judaic Studies Program at Brown.

Of the six required topical courses, at least one should focus on the ancient period and one should focus on the modern period.

Of the six required topical courses, at least one should be a 1000-level seminar or another advanced course (including independent study) approved by the concentration advisor in the student’s area of focus.

All students are required to designate an advanced departmental course as the capstone for his or her concentration. Within the frame of this capstone course, the concentrator will write a final course paper, which displays the student’s concentration focus, addressing in an appropriate way the theoretical and interpretive issues of the concentration focus.

In consultation with the concentration advisor, students may petition for the right to apply up to two courses taken in other departments/programs at Brown to the ten required for the Judaic Studies concentration. These courses must relate directly to the student’s focus and provide a comparison of a Judaic topic with some other relevant topic.

Students who study at other institutions, in the United States or abroad, may apply a maximum of two topical courses to their concentration in Judaic Studies. Hebrew language courses may also be transferred.

In consultation with the concentration advisor, students may apply up to two advanced language courses (or ) to the six required topical courses for the concentration.

Language Courses

• One full year of Elementary Hebrew. Generally, this requirement will consist of two courses in Modern Hebrew (and ) or the equivalent as determined by a proficiency examination. Students who pass the proficiency exam are encouraged, but are not required, to continue the study of Hebrew (for example, Intermediate Hebrew, and ; Writing and Speaking Hebrew.). Fulfillment of the Hebrew requirement through examination does not reduce the requirement to take ten courses for the concentration.

Honors Thesis

A candidate for honors in Judaic Studies will write a thesis in the senior year. In order to be considered a candidate for honors, students will be expected to maintain an outstanding record (at least A-) in Judaic Studies courses. The honors thesis, which fulfills the capstone requirement, will normally be written as a two-semester individual study project (JUDS 1970). At the end of the senior year, the thesis advisor (a faculty member of the Judaic Studies Program), and a second reader, chosen by the thesis advisor in consultation with the student, will evaluate the thesis, and the Judaic Studies faculty will determine if it is worthy of honors in Judaic Studies. Students interested in honors should approach a potential advisor by the spring registration period of their junior year. When taken as preparation of the honors thesis, JUDS 1970 count towards the ten courses required in the concentration.

Latin American and Caribbean Studies

Latin American and Caribbean Studies is an interdisciplinary concentration designed to help students develop an understanding of culture, history, and contemporary issues in the region. Concentrators study the social, political, economic, literary, and cultural features that comprise contemporary Latin American and Caribbean societies. Concentration requirements cover four general areas: language, area studies, research, and professional experience. Concentrators develop competency in Spanish or Portuguese and many concentrators also study in Latin America for one or both semesters during the junior year. An internship or volunteer work (required of all students) in Latin America or with a local organization that primarily serves Spanish or Portuguese speakers, puts students in direct contact with Latin Americans, and builds professional skills and experience.

Requirements are intentionally broad and flexible to accommodate the interests of students in understanding the diverse reality of Latin America and the Caribbean, yet the concentration also encourages focus. Concentration requirements cover four general areas: language and literature, area studies, independent research, and out of classroom experience.

Language

Basic competence in either Spanish or Portuguese is required. Each student must take either HISP 0100, HISP 0200, POBS 0110 or any more advanced Spanish or Portuguese language course. This requirement may be satisfied by examination, but the examination will not count as a course. No more than one advanced language course (not including literature courses) may be counted among the ten courses required for the concentration.

Literature

Some familiarity with the literature of the region is required. Each concentrator must take at least one of the following: HISP 0730, POBS 0610, or a 1000-level Spanish or Portuguese literature course dealing with Latin America.

Area Studies

6 courses: Two types of area-focused courses are required: (1) courses specifically designated “Latin American Studies” (LAST, not including LAST 1990–LAST 1991), and (2) courses in several departmental programs that demonstrate the ways in which various disciplines have contributed to our understanding of Latin America. Approved area studies courses for the concentration are listed in Appendix B of the Concentration Guide.

At least 2 disciplines (not including Latin American Studies) must be represented among the six area studies courses. Other 1000-level courses dealing with related subjects that are especially pertinent to the study of Latin America may be substituted with approval.

Senior Thesis or Project

2 courses: A Senior Thesis or Project is optional for concentrators. It includes course credit for a reading and research course (LAST 1990-LAST 1991). In order to integrate the diverse perspectives gained in courses and readings, seniors may elect to complete a Senior Thesis or Project under the direction of one faculty member. Seniors will also choose one additional faculty member to serve as a reader. The reader will receive a draft and a finished copy of the student’s thesis or project, which the reader will be responsible to grade. The reader may be involved in the earlier development of the thesis or project depending upon the arrangement made by the student with the reader. The Senior Thesis or Project will normally consist of a major research paper. A student may, with prior permission of the Latin American and Caribbean Studies Concentration Advisor, present a film, videotape, museum exhibition, or other appropriate project, together with a paper that clearly demonstrates the academic relevance of the project. Only the Senior Thesis qualifies the student (along with a minimum B+ average) for Honors. The Senior Project is quite often of a more personal nature, such as observations on practice teaching or a survey of social resources on Latin America. Near the beginning of the seventh semester, students should submit to the concentration advisor a 5 to 8 page prospectus accompanied by the signature of one faculty member indicating that he or she is willing to serve as primary advisor on the project.

If a concentrator chooses to do neither a senior thesis nor a senior project, then a research paper must be written in an advanced undergraduate seminar (1000-level). The seminar must be among the approved area studies courses listed in Appendix B of the Latin American Studies Concentration Guide, and will count as one of the ten courses required for the concentration. Research papers will typically be 20–30 pages in length and must be approved by the Concentration Advisor. Students who choose this option do not take LAST 1990 or LAST 1991. The seminar
counts as the research component of the program. The distribution requirements for this option are: 2 language courses, 7 area studies courses and 1 research course (i.e. the seminar for which the paper is written).

**Internships/Community Service**

The Concentration in Latin American and Caribbean Studies requires students to complete an internship or volunteer service work in Latin America or with a local organization that works primarily with Spanish or Portuguese speaking peoples. The Center maintains a database of local and international internship opportunities. Students are also strongly encouraged to consult with the Swearer Center for Public Service. Internships and community service work are available to Brown students who study abroad at the Brown programs in Mexico (Universidad de las Americas) and in Brazil (Catholic University of Rio de Janeiro). Examples of local service work performed by concentrators in previous years include: helping compile a Spanish language guide to welfare service agencies, developing a culturally appropriate adaptation of a health testing and education program, and ESL instruction to Latin American immigrants. Such extracurricular work can be rewarding in itself; in consultation with a faculty member, it can often be used to earn academic credit and furnish material for either a Senior Thesis or Project.

A minimum of one semester or a summer of internship or volunteer service work is required. Students need to submit an internship/service work proposal form to the Latin American and Caribbean Studies Concentration Advisor for approval prior to starting the internship or service work. Upon completion of the internship or service work, students are required to submit to the Concentration Advisor a brief summary report of their experience, which must be signed by the supervisor of the student’s internship or service work.

**Honors**

Qualified undergraduates may pursue work towards the B.A. with Honors. The requirements for graduation with Honors are the following:

1. Maintenance of at least a B+ average in the ten courses counting for the concentration.
2. Maintenance of at least a B+ average in all course work done for the B.A. at Brown.
3. Completion of a Senior Thesis approved by the primary advisor and reader as acceptable for Honors. The senior thesis should be “A” level work, although an “A” thesis does not automatically qualify for honors.

Prizes and Awards: Graduating seniors in Latin American Studies are eligible for an award administered by the concentration for outstanding Senior Thesis.

**Foreign Study**

Study abroad (normally in the junior year) is encouraged as an important part of the concentration. Interested students should begin early to prepare for such a venture. Popular programs with Latin American concentrators include Universidad de las Americas-Puebla, Mexico, and the Catholic University (PUC-Rio) of Rio de Janeiro, Brazil. Up to three courses taken abroad may be counted toward the ten courses required for the concentration. A list of Brown programs and approved non-Brown programs is available from the Office of International Programs (OIP) located in Rhode Island Hall. Feel free to consult the Latin American and Caribbean Studies concentration advisor about study abroad.

**Linguistics**

The concentration in linguistics is designed both for students interested in the discipline itself and for those wishing to use their understanding of linguistic structure to pursue other disciplines. Linguists are concerned with such issues as the commonalities of human languages, why languages change, how our linguistic abilities interact with our cognitive abilities, how language is learnable, and developing formal models of linguistic structure. Fields as diverse as anthropology, legal reasoning, language pathology, technical writing and editing, and artificial intelligence (AI) all rely heavily upon methods and models developed in linguistics. Required courses examine linguistic theory, phonology, syntax, and semantics, while electives may focus on computational, mathematical, or socio-linguistics, the philosophy of language, and biology and the evolution of language.

**Requirements (10 courses)**

**Prerequisite Course**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0030</td>
<td>Introduction to Linguistic Theory (may be waived in special instances)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Required Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1310</td>
<td>Introduction to Phonological Theory ¹</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1330</td>
<td>Introduction to Syntax ¹</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following courses in phonetics, phonology, syntax, or semantics:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CLPS 1340</td>
<td>Introduction to Semantics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1341</td>
<td>Lexical Semantics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1342</td>
<td>Formal Semantics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1320</td>
<td>The Production, Perception, and Analysis of Speech</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1381</td>
<td>Topics in Phonetics and Phonology: Intonational Phonology</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following courses in psycholinguistics:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CLPS 1800</td>
<td>Language Processing</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1810</td>
<td>Syntactic Theory and Syntactic Processing</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1650</td>
<td>Child Language Acquisition</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1820</td>
<td>Language and the Brain</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1385</td>
<td>Topics in Language Acquisition: Language Acquisition and Cognitive Development</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1389</td>
<td>Discourse Processing</td>
<td>1</td>
</tr>
</tbody>
</table>

**Electives (select five):**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 1340</td>
<td>Introduction to Semantics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1341</td>
<td>Lexical Semantics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1342</td>
<td>Formal Semantics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1320</td>
<td>The Production, Perception, and Analysis of Speech</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1381</td>
<td>Topics in Phonetics and Phonology: Intonational Phonology</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1800</td>
<td>Language Processing</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1810</td>
<td>Syntactic Theory and Syntactic Processing</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1650</td>
<td>Child Language Acquisition</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1890</td>
<td>Laboratory in Psycholinguistics</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1820</td>
<td>Language and the Brain</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1385</td>
<td>Topics in Language Acquisition: Language Acquisition and Cognitive Development</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1389</td>
<td>Discourse Processing</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 0800</td>
<td>Language and the Mind</td>
<td>1</td>
</tr>
<tr>
<td>CSCI 1460</td>
<td>Introduction to Computational Linguistics</td>
<td>1</td>
</tr>
<tr>
<td>ANTH 1800</td>
<td>Sociolinguistics, Discourse and Dialogue</td>
<td>1</td>
</tr>
<tr>
<td>EGYT 2310</td>
<td>History of the Ancient Egyptian Language</td>
<td>1</td>
</tr>
<tr>
<td>ENGL 1311E</td>
<td>History of the English Language</td>
<td>1</td>
</tr>
<tr>
<td>HISP 1210C</td>
<td>History of the Spanish Language</td>
<td>1</td>
</tr>
<tr>
<td>PHIL 1760</td>
<td>Philosophy of Language</td>
<td>1</td>
</tr>
<tr>
<td>SLAV 1300</td>
<td>Sociolinguistics (with Case Studies on the Former USSR and Eastern Europe)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Credits**

10

¹ It is recommended that students take CLPS 1310 and CLPS 1330 before higher level courses.

² Only 2 may be below 1000-level courses. The listings here are not exclusive of the possible electives; students should consult with the concentration advisor about the appropriateness of other courses.
Degrees with Honors (12 Courses)
Candidates for Honors in Linguistics will take a minimum of 10 courses for the concentration which will consist of all requirements for the standard program plus 2 additional courses in Linguistics or related disciplines. One of these courses may be an independent study project upon which the thesis is based. Honors candidates should formalize their projects in consultation with their advisors by the end of Semester 6. Although no specific grade-point average has been set for acceptance into the Honors Program, only students with a good record and an advisor willing to work with them will be allowed into the Honors Program.

Independent Study
Independent study is encouraged for the A.B. degree. Students should sign up for CLPS 1970 with a faculty advisor who is a member of the Department of Cognitive and Linguistic Sciences. Arrangements should be made in Semester 6 for students expecting to do independent study during Semesters 7 and/or 8.

Comments:
Foreign language courses will generally not count towards the concentration requirements, except those which focus on the structure or history of the language. Students are, however, advised to gain familiarity with a foreign language, and are encouraged to take at least one course which deals with the structure of a language other than English.
It is strongly recommended that students take CLPS 1310 and CLPS 1330 before Semester 7.

Literary Arts
Brown’s Program in Literary Arts provides a home for innovative writers of fiction, poetry, playwriting, screenwriting, literary translation, electronic writing and mixed media. The concentration allows student writers to develop their skills in one or more genres while deepening their understanding of the craft of writing. Many courses in this concentration require a writing sample; students should consult a concentration advisor or the concentration website for strategies on getting into the appropriate course(s).
Candidates for the Bachelor of Arts degree with concentration in Literary Arts will be expected to complete the following course work:
1. At least four creative writing workshops from among the following series: LITR 0100, LITR 0110, LITR 0210, LITR 0310, LITR 0610, LITR 1010, LITR 1110, and LITR 1150. At least two genres must be covered within the four courses taken. An independent study in literary arts (LITR 1310) may count toward the workshop requirement. Other writing-intensive courses may also count, at the discretion of the advisor.
2. Six elective reading and research in literary arts courses, which must include:
   • a course in literary theory or the history of literary criticism
   • a course that primarily covers readings and research in literary arts created before 1800
   • a course that primarily covers readings and research in literary arts created between 1800 and 1900
   • a course that primarily covers readings and research in literary arts created after 1900
These courses, selected in consultation with a concentration advisor, may come from (but are not limited to) the following departments: Africana Studies, American Civilization, Classics, Comparative Literature, East Asian Studies, Egyptology, French Studies, German Studies, Hispanic Studies, Italian Studies, Judaic Studies, Linguistics, Literatures and Cultures in English, Middle East Studies, Modern Culture and Media, Music, Portuguese and Brazilian Studies, Slavic Studies, South Asian Studies, Theatre, Speech and Dance, Visual Arts. With approval from the concentration advisor, courses covering pre-20th century time periods may be distributed in a variant manner, so long as they cover two distinct literary time periods that precede the 20th century
3. Among the ten required courses, at least four must be at the 1000-level or above. No more than a total of four classes (workshops or reading/research courses) may be taken outside of the Literary Arts Department at Brown (whether at another institution or within another department’s curriculum). No more than two of the ten required courses for the concentration may also count toward fulfilling a second concentration.
4. During the senior year, all students must take at least one course within the Literary Arts course offerings (courses with LITR designation by the Registrar, or courses approved by the concentration advisor). Honors in Creative Writing: Course requirements are the same as those for the regular concentration (four workshops, six elective literature-reading courses), with the following changes and additions: honors candidates must include two 1000-level workshops or independent studies among their courses; and complete a thesis. Students who are enrolled in or have completed at least one 1000-level workshop (or independent study) may submit honors applications to the Literary Arts Department from the first day of the fall semester to 20 September. Interested students should obtain information from the office of the Literary Arts Department.

Marine Biology
Marine biology encompasses the study of living organisms in the ocean or other marine or brackish bodies of water. Because marine organisms play an important role in sustaining life on earth, and because of the diverse habitats studied by marine biologists, concentrators must study broadly in the basic sciences and become familiar with the varied research techniques in the field. Consequently, students begin their learning with foundational courses in biology, mathematics, chemistry, and physics. Subsequent coursework in the concentration exposes students to a range of topics in biology (e.g., Invertebrate Zoology, Ecology, Physiology, Conservation) and courses in other sciences, including geological sciences, computer science, and engineering. Students are encouraged to spend a summer or semester conducting research at a field station. The field experience is a key feature of this program and provides scholarly interaction with leaders in the field so that students are mentored at the cutting edge.

Note: This concentration program is being phased out for Class of 2017 students and greater in favor of a track program within the Sc.B. in Biology.

Standard program for the Sc.B. degree

<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 (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0030</td>
<td>Basic Physics (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>PHYS 0040</td>
<td>Basic Physics (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0090</td>
<td>Introductory Calculus, Part I (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>MATH 0100</td>
<td>Introductory Calculus, Part II (or equivalent)</td>
<td>1</td>
</tr>
<tr>
<td>BIOL 0410</td>
<td>Vertebrate Zoology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0420</td>
<td>Principles of Ecology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0510</td>
<td>Introductory Microbiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 0800</td>
<td>Principles of Physiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 1180</td>
<td>Comparative Animal Physiology</td>
<td></td>
</tr>
<tr>
<td>BIOL 1440</td>
<td>Marine Biology</td>
<td></td>
</tr>
<tr>
<td>BIOL 1880</td>
<td>Comparative Biology of the Vertebrates</td>
<td></td>
</tr>
</tbody>
</table>

Select four of the following biology courses: 4

<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>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 1180</td>
<td>Comparative Animal Physiology</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIOL 1410</td>
<td>Evolutionary Genetics</td>
</tr>
<tr>
<td>BIOL 1420</td>
<td>Experimental Design in Ecology</td>
</tr>
<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
</tr>
</tbody>
</table>

Select three additional biology courses, highly recommended are: 3

<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>BIOL 0470</td>
<td>Genetics</td>
</tr>
<tr>
<td>BIOL 0480</td>
<td>Evolutionary Biology</td>
</tr>
<tr>
<td>BIOL 0500</td>
<td>Cell and Molecular Biology</td>
</tr>
<tr>
<td>BIOL 1180</td>
<td>Comparative Animal Physiology</td>
</tr>
<tr>
<td>BIOL 1310</td>
<td>Developmental Biology</td>
</tr>
<tr>
<td>BIOL 1410</td>
<td>Evolutionary Genetics</td>
</tr>
<tr>
<td>BIOL 1420</td>
<td>Experimental Design in Ecology</td>
</tr>
<tr>
<td>BIOL 1470</td>
<td>Conservation Biology</td>
</tr>
</tbody>
</table>

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

Mathematics is a grouping of sciences, including geometry, algebra, and calculus, that study quantity, structure, space, and change. Mathematics concentrators at Brown can explore these concepts through the department’s broad course offerings and flexible concentration requirements. The concentration leads to either the Bachelor of Arts or Bachelor of Science degree (the latter is strongly recommended for students interested in pursuing graduate study in mathematics or related fields). Concentrators begin their learning with multivariable calculus, linear algebra, and abstract algebra. Beyond these prerequisites, students take a variety of advanced topics on the 1000 and 2000 level based on their interests. Students also have the option of completing a thesis project. Concentrators in mathematics should complete the prerequisites by the end of their sophomore year. It is strongly recommended that students take MATH 1010 before taking MATH 1130.

Standard program for the A.B. degree

Prerequisites:
Multivariable calculus and linear algebra (choose one of the following sequences): 2

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180 &amp; MATH 0520</td>
<td>Intermediate Calculus and Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0180 &amp; MATH 0540</td>
<td>Intermediate Calculus and Honors Linear Algebra</td>
<td>2</td>
</tr>
<tr>
<td>MATH 0200 &amp; MATH 0520</td>
<td>Intermediate Calculus (Physics/Engineering) and Linear Algebra</td>
<td>2</td>
</tr>
</tbody>
</table>

Program:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 1530</td>
<td>Abstract Algebra</td>
<td>1</td>
</tr>
<tr>
<td>MATH 1540</td>
<td>Topics in Abstract Algebra</td>
<td>1</td>
</tr>
<tr>
<td>or MATH 1560</td>
<td>Number Theory</td>
<td>1</td>
</tr>
<tr>
<td>Four other 1000- or 2000-level Mathematics courses.</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

Total Credits: 8

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.

Mathematics-Computer Science

Students may opt to pursue an interdisciplinary Bachelor of Science degree in Math-Computer Science, a concentration administered cooperatively between the mathematics and computer science departments. Course requirements include math- and systems-oriented computer science courses, as well as computational courses in applied math. Students must identify a series of electives that cohere around a common theme. As with other concentrations offered by the Computer Science department, students have the option to pursue the professional track (http://www.cs.brown.edu/ugrad/concentrations/professional.track.html) of the ScB program in Mathematics-Computer Science.

Requirements for the Standard Track of the Sc.B. degree.

Prerequisites

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits: 3
or MATH 0540  Honors Linear Algebra

Core Courses
MATH 1530  Abstract Algebra   1
Select one of the following series:

Series A
CSCI 0150 & CSCI 0160  Introduction to Object-Oriented Programming and Computer Science and Introduction to Algorithms and Data Structures  2

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

Total Credits  19

1 These courses must be at the 1000-level or higher. The three courses must include a pair of courses with a coherent theme. A list of pre-approved pairs may be found at the approved-pairs web page (http://cs.brown.edu/ugrad/concentrations/approvedpairs.html). You are not restricted to the pairs on this list, but any pair not on the list must be approved by the director of undergraduate studies.

2 These must be approved by a concentration advisor.

3 A one-semester course, normally taken in the student’s last undergraduate year, in which the student (or group of students) use a significant portion of their undergraduate education, broadly interpreted, in studying some current topic in depth, to produce a culminating artifact such as a paper or software project.

Requirements for the Professional Track of the ScB degree.

The requirements for the professional track include all those of the standard track, as well as the following:

Students must complete two two-to-four-month full-time professional experiences, doing work that is related to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

• Which courses were put to use in your summer’s work? Which topics, in particular, were important?
• In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
• Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
• What did you learn from the experience that probably could not have been picked up from course work?
• Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
• Would you recommend your summer experience to other Brown students? Explain.

Mathematics-Economics

The Mathematical Economics concentration is designed to give a background in economic theory plus the mathematical tools needed to analyze and develop additional theoretical constructions. The emphasis is on the abstract theory itself.

Standard Mathematics-Economics Concentration (through the class of 2015):

Economics
ECON 1130  Intermediate Microeconomics (Mathematical)  1
ECON 1210  Intermediate Macroeconomics  1
ECON 1630  Econometrics I  1

Two from the "mathematical-economics" group:

ECON 1170  Welfare Economics and Social Choice Theory  2
ECON 1225  Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies

Mathematics
At least two calculus courses through MATH 0180 or its equivalent.

MATH 0520  Linear Algebra  1
or MATH 0540  Honors Linear Algebra

Select one of the following Options:

Option A
MATH 1610  Probability
MATH 1620  Mathematical Statistics

One course from the "advanced mathematics" group, as follows:

MATH 1010  Analysis: Functions of One Variable
MATH 1110  Ordinary Differential Equations
MATH 1120  Partial Differential Equations
MATH 1130  Functions of Several Variables
MATH 1140  Functions Of Several Variables

Option B
APMA 1650  Statistical Inference I

Two courses from the "advanced mathematics" group, as follows:

MATH 1010  Analysis: Functions of One Variable
MATH 1110  Ordinary Differential Equations
MATH 1120  Partial Differential Equations
MATH 1130  Functions of Several Variables

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Standard Mathematics-Economics Concentration (class of 2016 and beyond):

Economics

ECON 1130 Intermediate Microeconomics (Mathematical) ¹
ECON 1210 Intermediate Macroeconomics
ECON 1630 Econometrics I

Two courses from the "mathematical-economics" group: ²
ECON 1170 Welfare Economics and Social Choice Theory
ECON 1225 Advanced Macroeconomics: Monetary, Fiscal, and Stabilization Policies
ECON 1465 Market Design: Theory and Applications
ECON 1470 Bargaining Theory and Applications
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1750 Investments II
ECON 1759 Data, Statistics, Finance
ECON 1810 Economics and Psychology
ECON 1820 Behavioral Economics
ECON 1850 Theory of Economic Growth
ECON 1860 The Theory of General Equilibrium
ECON 1870 Game Theory and Applications to Economics

One course from the "data methods" group: ²
ECON 1305 Economics of Education: Research
ECON 1310 Labor Economics
ECON 1360 Health Economics
ECON 1410 Urban Economics
ECON 1510 Economic Development
ECON 1520 The Economic Analysis of Institutions
ECON 1530 Health, Hunger and the Household in Developing Countries
ECON 1640 Econometrics II
ECON 1650 Financial Econometrics
ECON 1759 Data, Statistics, Finance
ECON 1765 Finance, Regulation, and the Economy: Research

Two additional 1000-level economics courses

Mathematics

Calculus: MATH 0180 or higher
Lineare Algebra - one of the following:
MATH 0520 Linear Algebra
MATH 0540 Honors Linear Algebra
Probability Theory - one of the following:
MATH 1610 Probability
MATH 1620 Mathematical Statistics
APMA 1650 Statistical Inference I
Analysis - one of the following:
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:
MATH 1110 Ordinary Differential Equations
MATH 1120 Partial Differential Equations

Honors and Capstone Requirement:
Admission to candidacy for honors in the concentration is granted on the following basis: 3.7 GPA for Economics courses, and 3.5 GPA overall. To graduate with honors, a student must write an honors thesis in senior year following the procedures specified by the concentration (see Economics Department website). Beginning with the class of 2016, students not writing an honors thesis must complete an alternative senior capstone project and obtain approval of a faculty sponsor.

Professional Track (applies irrespective of graduation year):

The requirements for the professional track include all those of the standard track, as well as the following:
Students must complete two two-to-four month full-time professional experiences, doing work that is relevant to their concentration programs. Such work is normally done within an industrial organization, but may also be at a university under the supervision of a faculty member.

On completion of each professional experience, the student must write and upload to ASK a reflective essay about the experience addressing the following prompts, to be approved by the student’s concentration advisor:

• Which courses were put to use in your summer’s work? Which topics, in particular, were important?
• In retrospect, which courses should you have taken before embarking on your summer experience? What are the topics from these courses that would have helped you over the summer if you had been more familiar with them?
• Are there topics you should have been familiar with in preparation for your summer experience, but are not taught at Brown? What are these topics?
• What did you learn from the experience that probably could not have been picked up from course work?
• Is the sort of work you did over the summer something you would like to continue doing once you graduate? Explain.
• Would you recommend your summer experience to other Brown students? Explain.

Medieval Cultures

Medieval Cultures offers two distinct areas of historical focus: the Medieval and the Late Antique. The former focuses on the sixth through the fifteenth centuries, combining interdisciplinary perspectives with in-depth study of one or two related disciplines. Late Antique Cultures deals with the third through the ninth centuries, when ancient cultural forms were still in place but medieval cultures were beginning to take shape simultaneously. The first undergraduate degree of its kind in this country, Late Antique Cultures facilitates the study of human activity in all of its variety. A traditional area of study in Medieval Cultures is Western Europe, but students are encouraged to work in other cultural areas such as Byzantine, Islamic, Judaic and Slavic. The concentration serves students interested in the changing relation of cultural practices, social patterns, political and economic forms, and artistic and literary traditions in this important transitional period.

Medieval Cultures Track
It is recommended that prospective concentrators take the introductory course, Medieval Perspectives, during their freshman or sophomore year.

Requirements
Ten courses approved by the Program in Medieval Studies, including two courses in medieval history and one 1000- or 2000-level course that uses

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
primary texts in a medieval language other than Middle English. Interested students are invited to discuss their plans with an appropriate faculty member of the Program. A concentration proposal should be prepared in consultation with the faculty advisor and submitted to the Program Chair for approval.

Honors
This is awarded to students who present a meritorious honors thesis in addition to completing the required courses of the concentration. The thesis permits the student to synthesize various disciplines or interests, or to pursue a new interest in greater depth. To be eligible for Honors, candidates must complete a minimum of six approved courses in Medieval Studies by the end of their third year with more grades of A than B. Students should apply for admission to Honors and should meet with their faculty advisor(s) no later than spring of the junior year to plan the thesis project. Accepted candidates write the thesis in a two-semester course sequence under the supervision of a director and 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:
  - CLAS 1310 Roman History I: The Rise and Fall of an Imperial Republic
  - CLAS 1320 Roman History II: The Roman Empire and Its Impact (recommended)

- One course in medieval history
  - HIST 1030 The Long Fall of the Roman Empire
  - HIST 1040 Crusaders and Cathedrals, Deviants and Dominance: Europe in the High Middle Ages

- One course at the advanced level (numbered at least 1000) in one approved language

- Six other courses drawn from appropriate offerings and with the approval of the concentration advisor. These courses should support a concentration area of special interest.

Total Credits = 12

1 The language in most cases will be Latin, but students will present different competencies and interests; other languages, such as Greek, Hebrew, or one of the medieval vernaculars can be substituted for Latin, with the approval of the concentration advisor and in conjunction with a clearly articulated program of study.

Honors
When in Late Antique Cultures, these are awarded to students who present a meritorious honors thesis in addition to completing the required courses of the concentration. Application for admission to honors should be made in the spring of the junior year, by which time honors candidates must have completed a minimum of six approved courses in Late Antique Studies. Accepted candidates write the thesis in a two-semester course sequence (MDVL 1990) under the supervision of a director and a second reader to be determined in consultation with the advisor.

Middle East Studies
Middle East Studies (MES) is an interdisciplinary concentration that draws upon courses offered by a distinguished core faculty in the humanities and the social sciences. Regardless of one’s passions – whether history, religion, politics, culture, literature, modern media, philosophy or practices of everyday life – the Middle East is an ideal site for considering the diversity and complexity of the human experience. A growing number of exciting courses, creative and relevant programming, and a steady stream of post-docs and visiting professors offer unparalleled opportunities for MES concentrators who wish to understand this region and to engage with a broad range of issues that affect our world.

Standard Program for the AB Degree

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MES 0155</td>
<td>Cultures of the Contemporary Middle East</td>
<td>1</td>
</tr>
<tr>
<td>HIST 1450</td>
<td>History of the Modern Middle East, 1800-1918</td>
<td>4</td>
</tr>
<tr>
<td>HIST 1460</td>
<td>History of the Modern Middle East since 1918</td>
<td>4</td>
</tr>
<tr>
<td>HIST 1453</td>
<td>Civilization, Empire, Nation: Competing Histories of the Middle East</td>
<td>4</td>
</tr>
<tr>
<td>RELS 0150</td>
<td>Islam Unveiled</td>
<td>4</td>
</tr>
<tr>
<td>POLS 1270</td>
<td>Middle East Politics</td>
<td>4</td>
</tr>
</tbody>
</table>

Language Semesters: Basic competence in at least one of the modern Middle Eastern languages is required. This entails taking at least four semesters of coursework in one of the modern Middle Eastern languages such as Arabic, Persian, Hebrew, Turkish, etc. 1

Electives: Four courses chosen from the list of courses that are cross-listed by Middle East Studies and approved by the Concentration advisor. Students should acquire a good balance of courses by taking courses in the humanities and social sciences. Students should also seek a good balance between courses whose primary subject matter is pre-modern (ancient and medieval) and modern and contemporary Middle East.

Capstone/Honors Project: This can take many forms, such as:

- a. A paper of no less than 30 pages for an existing concentration-eligible class, undertaken with the permission of the instructor
- b. An independent study or project (artistic, research, or otherwise) supervised by at least one faculty member for at least one semester under MES 1970- Independent Study designation 2
- c. An Honors Thesis

Total Credits = 12

1 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.

2 Two semesters of Independent Study (MES 1970) are required for honors and will raise the number of required courses to 13.

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 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.

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

Track I concentrators may choose to study a particular historical moment, a medium, or a mode of textual production, in combination with theoretical studies that examine the categories of cultural analysis: for example, the distinction between high and low culture. Examples of areas of interest include but are not limited to film, gender/sexuality, digital media, television, post-coloniality, the novel, modern thought, the modern arts, sound, and theories of ideology and subjectivity. Productive work in some modern medium or textual mode is encouraged for all concentrators.

MCM's approach to production recognizes the inextricable link between theory and practice, and the possibility of a fruitful complicity between them. Production, in the sense defined here, is a theoretically informed sphere or practice, one within which acknowledged forms of cultural creation are tested and extended in close complementarity with the analyses conducted elsewhere in MCM.

Track I consists of 11 courses.

Core courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0110</td>
<td>Introduction to the Theory and Analysis of Modern Culture and Media</td>
<td>1</td>
</tr>
</tbody>
</table>

Select two of the following: ¹

- MCM 0230 Digital Media
- MCM 0240 Television Studies
- MCM 0250 Visuality and Visual Theories
- MCM 0260 Cinematic Coding and Narrativity
- MCM 1110 The Theory of the Sign

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. ²

Total Credits: 11

¹ No more than three courses from this list may count for concentration requirements.
² The specific courses must be approved by an MCM concentration advisor as part of a coherent program of study.

Other Requirements:

1. Focus Area: Of the 11 courses required for the concentration, at least 3 courses must be in a focus area approved by a concentration advisor. These courses may be MCM courses, related courses, or a combination of the two, and they must represent a concentration on some aspect of modern literature, theory, media, art or culture. Examples of possible focus areas are: mass/popular culture, gender/sexuality, language/representation/subjectivity, narrative, digital media, film, modern thought, television, the modern arts, the novel, colonialism and post-colonialism. This is not an exhaustive list.

Production courses may be in the focus area but must be in addition to the minimum 3 courses.

2. Production: Work in production is encouraged but not required for all Track I concentrators. Of the 11 courses required for concentration, as many as 3 may be in production. These may be production courses offered by MCM (film, video, digital media) or courses in creative writing, painting, photography, journalism, etc., provided they do not bring the total number of concentration courses taken outside MCM to more than 3.

Honors: Students who qualify for Honors in Track I are eligible to apply to do an Honors project or thesis. Prospective honors students submit the honors application in the beginning of the 7th semester. (Forms are available in the MCM office.) Applications are screened by the MCM Honors Committee. If approved, a student must then register in the 8th semester for MCM 1990, a one-credit thesis course, to complete the Honors project. An Honors degree reflects not only the completion of the thesis course and project, but generally distinguished performance in the concentration.

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 0110</td>
<td>Introduction to the Theory and Analysis of Modern Culture and Media</td>
<td>1</td>
</tr>
</tbody>
</table>

Select one of the following Introductory or History of a Medium courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCM 0710</td>
<td>Introduction to Filmmaking: Time and Form</td>
<td>1</td>
</tr>
<tr>
<td>MCM 0730</td>
<td>Introduction to Video Production: Critical Strategies and Histories</td>
<td>1</td>
</tr>
<tr>
<td>MCM 0750</td>
<td>Art in Digital Culture</td>
<td>1</td>
</tr>
<tr>
<td>VISA 0100</td>
<td>Studio Foundation</td>
<td>1</td>
</tr>
<tr>
<td>VISA 0110</td>
<td>Advanced Studio Foundation</td>
<td>1</td>
</tr>
<tr>
<td>VISA 0120</td>
<td>Foundation Media: Sound and Image</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0200</td>
<td>Computers and Music</td>
<td>1</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 0110 Introduction to Western Music

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 0230</td>
<td>Digital Media</td>
<td>1</td>
</tr>
<tr>
<td>MCM 0240</td>
<td>Television Studies</td>
<td>1</td>
</tr>
<tr>
<td>MCM 0250</td>
<td>Visuality and Visual Theories</td>
<td>1</td>
</tr>
<tr>
<td>MCM 0260</td>
<td>Cinematic Coding and Narrativity</td>
<td>1</td>
</tr>
<tr>
<td>MCM 1110</td>
<td>The Theory of the Sign</td>
<td>1</td>
</tr>
</tbody>
</table>

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 combinatorial 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: Students who qualify for Honors in Track II are eligible to apply to do an Honors project or thesis. Prospective honors students submit the honors application in the beginning of the 7th semester. (Forms are available in the MCM office.) Applications are screened by the MCM Honors Committee. If approved, a student must then register in the 8th semester for MCM1990, a one-credit thesis course, to complete the Honors project. An Honors degree reflects not only the completion of the thesis course and project, but generally distinguished performance in the concentration.

Music

The concentration in Music integrates theory, history, ethnomusicology, technology, composition, and performance. Students may select
from among three tracks within the concentration: the first track emphasizes theory, history, and composition; a second track emphasizes ethnomusicology; and a third track focuses on computer music and multimedia. The Music curriculum is supported by the Orwig Music Library, a state-of-the-art facility with holdings of over 40,000 books and scores and an equal number of sound and video recordings. Concentrators are encouraged to participate in one or more of the departmentally sponsored performing organizations: Chorus, Orchestra, Jazz Band, Wind Symphony, Chamber Music Performance, Electroacoustic Ensemble, Sacred Harp/Shapenote Singing, Old-time String Band, Javanese Gamelan, or Ghanaian Drumsing.

MUSC 0550 and MUSC 0560 are prerequisite for many upper-level music courses and are required for all three concentration tracks. These courses lay the foundation for an understanding of the structure of Western music, and develop the musicianship and keyboard skills expected of all concentrators. Students considering a concentration in Music should complete this sequence as early as possible, preferably by the end of sophomore year.

The Department of Music does not award course credit for Advanced Placement (A.P.) courses. Students may receive placement credit for MUSC 0550 and/or MUSC 0560, however. Students interested in placing out of MUSC 0550–MUSC 0560 must take the theory placement test administered during the first class meeting of MUSC 0550 at the beginning of the fall semester. Each student who passes the test will consult with the director of the course to work out individual arrangements for placement credit.

Participation in one or more of the departmentally sponsored performing organizations is highly recommended: Chorus, Orchestra, Jazz Band, Wind Symphony, Chamber Music Performance, Electroacoustic Ensemble, Sacred Harp/Shapenote Singing, Old-time String Band, Javanese Gamelan, Brazilian Choro Ensemble, or Ghanaian Drumsing. All music courses—including performance courses—are open to all Brown students, provided that they have satisfied the prerequisites.

**Concentration Requirements:**

**History/Theory/Composition Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 0550</td>
<td>Theory of Tonal Music (offered every fall)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0560</td>
<td>Theory of Tonal Music (offered every spring)</td>
<td>1</td>
</tr>
</tbody>
</table>

**History**

Select two of the following (the third is optional):

- MUSC 0910 Medieval and Renaissance Music 2
- MUSC 0920 Baroque and Classic Music 1
- MUSC 0930 Romantic and Modern Music 1

**Advanced Theory**

Select two of the following:

- MUSC 1020 Modal Counterpoint (usually offered every other fall) 2
- MUSC 1030 Tonal Counterpoint (usually offered every other fall) 1
- MUSC 1040 Advanced Music Theory I (usually offered every other fall) 1
- MUSC 1050 Advanced Music Theory II (usually offered every other fall) 1

**Advanced Musicianship**

- MUSC 1010 Advanced Musicianship I (offered every fall) 0.5
- MUSC 1011 Advanced Musicianship II (offered every spring) 0.5

**Ethnomusicology**

- MUSC 1900 Introduction to Ethnomusicology (usually offered annually) 1

**Electives:**

Three upper-level courses are required (i.e., no course below MUSC 0570) 3

**Total Credits**

10

1 Prerequisite: MUSC 0560
2 Should be taken before the senior year.
3 1600-level seminars are preferred. Up to two full Applied Music or ensemble credits (i.e., four semesters) may be applied to the concentration requirements.

**Ethnomusicology Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 0550</td>
<td>Theory of Tonal Music (offered every fall)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0560</td>
<td>Theory of Tonal Music (offered every spring)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Other Foundational Courses**

- ANTH 0100 Introduction to Cultural Anthropology 1
- MUSC 1900 Introduction to Ethnomusicology (usually offered annually) 1

**History**

Select two of the following (the third is optional):

- MUSC 0910 Medieval and Renaissance Music 2
- MUSC 0920 Baroque and Classic Music 1
- MUSC 0930 Romantic and Modern Music 1

**Electives in Ethnomusicology**

Four additional courses in ethnomusicology numbered 1000 or higher are required. 2

**Total Credits**

10

1 Should be taken before the senior year.
2 For a list of qualifying courses, see the Concentration Advisor.

**Computer Music and Multimedia Track:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSC 0550</td>
<td>Theory of Tonal Music (offered every fall)</td>
<td>1</td>
</tr>
<tr>
<td>MUSC 0560</td>
<td>Theory of Tonal Music (offered every spring)</td>
<td>1</td>
</tr>
</tbody>
</table>

**Computer Music Foundation**

- MUSC 0200 Computers and Music 1
- MUSC 1200 Seminar in Electronic Music: Recording Studio as Compositional Tool 1
- MUSC 1210 Seminar in Electronic Music: Real-Time Systems 1

**Musicology Ethnomusicology Elective**

One scholarly course numbered above MUSC 0900 1

**Electives:**

Four elective courses selected in any combination from the following groups:

- Computer Music and Multimedia courses, MUSC 1220–1290 or MUSC 2200–2290
- Theory and composition courses, MUSC 1020–1190
- No more than one lower–level Computer Music and Multimedia course, MUSC 0210–0230
- No more than one electronic art production course (VISA or MCM) from approved list.

**Total Credits**

10

1 For a list of qualifying courses, see the concentration advisor.

**Neuroscience**

Neuroscience is an interdisciplinary field that seeks to understand the functions and diseases of the nervous system. It draws on knowledge from neurobiology as well as elements of psychology and cognitive science, and mathematical and physical principles involved in modeling neural systems. Through the Neuroscience concentration, students develop foundational knowledge through courses in biology, chemistry, and mathematics as well as three core courses in neuroscience. They are also required to develop facility with research methodologies (through courses in statistics and laboratory methods) before moving into specific topics in the field (e.g., visual physiology, neurochemistry and behavior, and

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

**Background Courses:**
- MATH 0900 Introductory Calculus, Part I 1
- PHYS 0040 Basic Physics 1
- BIOL 0200 The Foundation of Living Systems 1
- CHEM 0350 Organic Chemistry 1

**Core Concentration Courses:**
- NEUR 1020 Principles of Neurobiology 1
- NEUR 1030 Neural Systems 1
- NEUR 1510 The Brain: An Introduction to Neuroscience 1
- CHEM 0330 Equilibrium, Rate, and Structure 1
- CHEM 0340 Equilibrium, Rate, and Structure 1
- CHEM 0350 Organic Chemistry 1

**One course in Ancient Philosophy, e.g. 1**
- 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. 1**
- PHIL 0360 Early Modern Philosophy
- PHIL 1700 British Empiricists
- PHIL 1710 17th Century Continental Rationalism
- PHIL 1720 Kant: The Critique of Pure Reason

**One course in Epistemology or Metaphysics, e.g. 1**
- 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. 1**
- PHIL 0500 Moral Philosophy
- PHIL 0560 Political Philosophy
- PHIL 1640 The Nature of Morality
- PHIL 1650 Moral Theories

**One course in Logic, e.g. 1**
- PHIL 0540 Logic
- PHIL 1630 Mathematical Logic
- PHIL 1880 Advanced Deductive Logic

**One seminar 1**
- A course from the PHIL 0990 series
- Or any seminar at the 2000-level, which may be counted for one of the other requirements

**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. 1

**Capstone 1**
- 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.
- Senior Seminar (PHIL 0990): Seminars aimed primarily at advanced undergraduates, on varying topics each year, requiring the completion of a substantial research paper.
- Graduate Seminar (PHIL 2000-level): seminars mainly aimed at graduate students, but also open to advanced undergraduates, requiring the completion of a substantial research paper.

**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 (possibly starting with a relevant Reading Course in the first semester) under the supervision of a thesis advisor (possibly, though not necessarily, the specialization advisor). For honors, see below.

**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 (for declarations made January 2013 to present)**

10 courses total, of which no more than one may be below PHIL 0350, and at least three must be at or above PHIL 0900.

**One course in Ancient Philosophy, e.g. 1**
- 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. 1**
- PHIL 0360 Early Modern Philosophy
- PHIL 1700 British Empiricists
- PHIL 1710 17th Century Continental Rationalism
- PHIL 1720 Kant: The Critique of Pure Reason

**One course in Epistemology or Metaphysics, e.g. 1**
- 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 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

**One seminar**
- A course from the PHIL 0990 series
- Or any seminar at the 2000-level, which may be counted for one of the other requirements

**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. 1

**Capstone**

**Total Credits 10**

- **1 No more than one course may fulfill both a general distribution requirement and a specialization requirement.**
- **No more than two courses from departments other than the philosophy department may be counted among the ten courses required for the concentration; no more than one of these two outside courses may count toward the three specialization requirements.**
- **The specialization and the courses that will fulfill it are standardly declared at some point in the course of the Junior year. Those making a Concentration Declaration at an earlier time (e.g. at the end of their Sophomore year) may make a provisional choice of courses which can be revised at a later date with the approval of the department’s**
- **Concentrators who aim at a general acquaintance with the discipline of philosophy may forgo a specialization and devise an appropriately balanced program of courses beyond the requirements with the approval of the DUS.**

**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).
- Thesis (see Capstone Options)

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

For Declarations made prior to January 2013, there was one concentration program in Philosophy with two optional tracks:

Standard Concentration (Prior to January 2013)

Eight courses in philosophy, which may not include more than one course numbered below 0350. In addition, at least one of the courses must be an undergraduate or graduate seminar.

One course in Ancient Philosophy
- PHIL 0350 Ancient Philosophy
- PHIL 1250 Aristotle
- PHIL 1260 Plato
- PHIL 1310 Myth and the Origins of Science

One course in Early Modern Philosophy
- PHIL 0360 Early Modern Philosophy
- PHIL 1700 British Empiricists
- PHIL 1710 17th Century Continental Rationalism
- PHIL 1720 Kant: The Critique of Pure Reason

Logic
- PHIL 0540 Logic (or higher)

Ethics or Political Philosophy
- PHIL 0500 Moral Philosophy (or higher)

One course in Epistemology or Metaphysics
- PHIL 1660 Metaphysics
- PHIL 1750 Epistemology
- PHIL 1770 Philosophy of Mind

Three additional courses is philosophy

Total Credits 8

Optional tracks:

Ethics and Political Philosophy

Eight courses in philosophy, which may not include more than one course numbered below 0350.

One course in Ancient Philosophy
- PHIL 0350 Ancient Philosophy
- PHIL 1250 Aristotle
- PHIL 1260 Plato
- PHIL 1310 Myth and the Origins of Science

One course in Early Modern Philosophy
- PHIL 0360 Early Modern Philosophy
- PHIL 1700 British Empiricists
- PHIL 1710 17th Century Continental Rationalism
- PHIL 1720 Kant: The Critique of Pure Reason

Logic
- PHIL 0540 Logic (or higher)

Three courses in ethics or political philosophy at the level of 0400 or higher

Two additional philosophy courses

Total Credits 8

Logic and Philosophy of Science

Eight courses in philosophy, which may not include more than one course numbered below 0350. With the approval of the concentration advisor, two appropriate science or mathematics courses may be taken instead of philosophy courses.

One course in Ancient Philosophy
- PHIL 0350 Ancient Philosophy
- PHIL 1250 Aristotle

One course in Early Modern Philosophy
- PHIL 0360 Early Modern Philosophy
- PHIL 1700 British Empiricists
- PHIL 1710 17th Century Continental Rationalism
- PHIL 1720 Kant: The Critique of Pure Reason

A course in Logic at the level of 1630 or higher

One course in Epistemology or Metaphysics

Three courses in philosophy of science at the level of 0650 or higher

One additional philosophy course

Total Credits 8

Cross-listed courses may be used to fulfill the requirements of any of the concentrations above only with the approval of the concentration advisor.

Honors (Prior to January 2013)

Seniors wishing to earn honors by presenting a senior honors thesis should consult their concentration advisor during their sixth semester concerning procedures and requirements. In addition to completing the usual non-honors requirements, a student must write a thesis judged to be of honors quality by two readers and have a strong record in philosophy department courses (of which at least five must be taken for a letter grade). Honors theses are usually written during a student’s final semester at Brown.

Physics

Physics is the scientific study of the fundamental principles governing the behavior of matter and the interaction of matter and energy. Mathematics is used to describe fundamental physical principles, the behavior of matter, and the interactions of matter and energy. As the most fundamental of sciences, physics provides a foundation for other scientific fields as well as the underpinnings of modern technology. The Physics department is unique because of the breadth of its faculty expertise and research, and the relatively intimate size of its classes above the introductory level. Physics concentrators may choose to pursue either the A.B. or the more intensive Sc.B. degree. Course work on either path covers a broad base of topics (for example, electricity and magnetism, classical and quantum mechanics, thermodynamics, and statistical mechanics). The Sc.B. degree requires additional advanced topics as well as a senior thesis project.

Standard concentration for the A.B. degree

Select one of the following Series:

- PHYS 0070 Analytical Mechanics
- PHYS 0160 and Introduction to Relativity and Quantum Physics
- PHYS 0030 Basic Physics
- PHYS 0040 and Basic Physics
- PHYS 0050 Foundations of Mechanics
- PHYS 0060 and Foundations of Electromagnetism and Modern Physics
- PHYS 0470 Electricity and Magnetism
- PHYS 0500 Advanced Classical Mechanics
- PHYS 0560 Experiments in Modern Physics
- PHYS 1410 Quantum Mechanics A
- PHYS 1530 Thermodynamics and Statistical Mechanics

One additional 1000-level course or a mathematics course beyond the introductory level.

Total Credits 8

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
### Standard program for the Sc.B. degree

**Prerequisites:**

Select one of the following series:

<table>
<thead>
<tr>
<th>Series</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070 &amp; PHYS 0160</td>
<td>Analytical Mechanics and Introduction to Relativity 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>
</tbody>
</table>

Select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0190</td>
<td>Advanced Placement Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>Or MATH 0090, MATH 0100</td>
<td></td>
</tr>
</tbody>
</table>

**Program:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>PHYS 1100</td>
<td>Introduction to General Relativity</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>
<tr>
<td>PHYS 1560</td>
<td>Modern Physics Laboratory</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>18</td>
</tr>
</tbody>
</table>

1. In addition, courses in computer programming are recommended.
2. A senior thesis is required. This is to be prepared in connection with PHYS 1990 under the direction of a faculty supervisor. The topic may be in a related department or of interdisciplinary nature. In any event, a dissertation must be submitted.

### Honors

Candidates for honors in physics will be expected to pursue a more rigorous and extensive program than those merely concentrating in the subject. In addition they will be required to begin an honors thesis during the seventh semester and to complete it (as part of PHYS 1990) during the eighth semester. Honors candidates are also expected to take a special oral examination on the thesis at the end of the eighth semester. Further details about the program may be obtained from the chair of the department or the departmental honors advisor.

### Astrophysics Track for the Sc.B. degree

**Prerequisites:**

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0070 &amp; PHYS 0160</td>
<td>Analytical Mechanics and Introduction to Relativity 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>Introduction to Astronomy</td>
</tr>
</tbody>
</table>

Select one of the following Series:

<table>
<thead>
<tr>
<th>Series</th>
<th>Courses</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>
</tbody>
</table>

### Biological Physics Track for the Sc.B. degree

**Foundations of Physics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</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>
</tr>
<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity and Quantum Physics</td>
</tr>
<tr>
<td>or PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
</tr>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</td>
</tr>
<tr>
<td>PHYS 0500</td>
<td>Advanced Classical Mechanics</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>

Select one of the following Series: 1-2

<table>
<thead>
<tr>
<th>Series A</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0720</td>
<td>Methods of Mathematical Physics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Series B</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMA 0330</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>APMA 0350</td>
<td>Methods of Applied Mathematics I, II</td>
</tr>
<tr>
<td>MATH 1110</td>
<td>Ordinary Differential Equations</td>
</tr>
</tbody>
</table>

And select one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0180</td>
<td>Intermediate Calculus</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>MATH 0350</td>
<td>Honors Calculus</td>
</tr>
<tr>
<td>MATH 0520</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH 0540</td>
<td>Honors Linear Algebra</td>
</tr>
</tbody>
</table>

### Basic Biology and Chemistry

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
BIOL 0200  The Foundation of Living Systems (or placement out of BIOL 0200)  1
BIOL 0500  Cell and Molecular Biology  1
CHEM 0330  Equilibrium, Rate, and Structure  1

**Advanced Biophysical Topics and Techniques**

PHYS 1610  Biological Physics  1
PHYS 1990  Senior Conference Course  1

**Elective Courses (four chosen from the following list, with at least two 1000-level courses, or additional courses approved by the concentration advisor):**

- APMA 0360  Methods of Applied Mathematics I, II
- APMA 0410  Mathematical Methods in the Brain Sciences
- APMA 0650  Essential Statistics
- APMA 1070  Quantitative Models of Biological Systems
- APMA 1080  Inference in Genomics and Molecular Biology
- BIOL 0280  Introductory Biochemistry
- BIOL 0470  Genetics
- BIOL 1050  Biology of the Eukaryotic Cell
- BIOL 1200  Protein Biophysics and Structure
- BIOL 1270  Advanced Biochemistry
- BIOL 1870  Techniques in Pathobiology
- CHEM 0350  Organic Chemistry
- CHEM 0360  Organic Chemistry
- MATH 0090  Introductory Calculus, Part I
- MATH 0170  Advanced Placement Calculus
- MATH 0190  Advanced Placement Calculus (Physics/Engineering)
- MATH 1610  Probability
- MATH 1620  Mathematical Statistics
- PHYS 0050  Foundations of Mechanics
- PHYS 0060  Advanced Placement Calculus (Physics/Engineering)
- PHYS 0100  Introductory Calculus, Part II
- PHYS 0160  Introduction to Relativity and Quantum Physics
- PHYS 0200  Intermediate Calculus
- PHYS 0270  Advanced Electromagnetic Theory
- PHYS 0350  Honors Calculus
- PHYS 0470  Electricity and Magnetism
- PHYS 0500  Advanced Classical Mechanics
- PHYS 0560  Experiments in Modern Physics
- PHYS 1010  Introduction to Relativity and Quantum Physics
- PHYS 1050  Advanced Classical Mechanics
- PHYS 1410  Thermodynamics and Statistical Mechanics
- PHYS 1510  Advanced Electromagnetic Theory
- PHYS 1530  Thermodynamics and Statistical Mechanics
- PHYS 1560  Modern Physics Laboratory

**Total Credits**  17-18

1  Select Series A alone or two from Series B as indicated.

2  A senior thesis is required. This is to be prepared in connection with under the direction of a faculty supervisor.

---

**Mathematical Physics Track for the A.B. degree**

**Prerequisites:**

- MATH 0090  Introductory Calculus, Part I  1
- MATH 0100  Introductory Calculus, Part II  1
- MATH 0190  Advanced Placement Calculus (Physics/Engineering)  1
- PHYS 0050  Foundations of Mechanics  1
- MATH 0070  Analytical Mechanics  1

**Mathematics Courses**  1

- MATH 0180  Intermediate Calculus  1
- MATH 0200  Intermediate Calculus (Physics/Engineering)  1
- MATH 0350  Honors Calculus  1
- MATH 0520  Linear Algebra  1
- MATH 0540  Honors Linear Algebra  1
- MATH 1110  Ordinary Differential Equations  1

Select at least one of the following:  1

- MATH 1060  Differential Geometry  1
- MATH 1120  Partial Differential Equations  1
- MATH 1610  Probability  1

**Physics Courses**  1

- PHYS 0060  Foundations of Electromagnetism and Modern Physics  1
- or PHYS 0160  Introduction to Relativity and Quantum Physics  1
- PHYS 0470  Electricity and Magnetism  1
- PHYS 0500  Advanced Classical Mechanics  1
- PHYS 0560  Experiments in Modern Physics  1

Select at least two of the following:  2

- PHYS 1410  Quantum Mechanics A  1
- PHYS 1420  Quantum Mechanics B  1
- PHYS 1510  Advanced Electromagnetic Theory  1
- PHYS 1530  Thermodynamics and Statistical Mechanics  1
- PHYS 1560  Modern Physics Laboratory  1

**Total Credits**  12

---

1  Concentrators are required to take at least one course in mathematics and one in physics in each of their last two semesters.

**Mathematical Physics Track for the Sc.B. degree**

**Prerequisites:**

- PHYS 0070  Analytical Mechanics  1
- PHYS 0160  Introduction to Relativity and Quantum Physics  1

**Physics Courses**  1

- PHYS 0050  Foundations of Mechanics  1
- & PHYS 0060  and Foundations of Electromagnetism and Modern Physics  1

Select one of the following:  1-2

- MATH 0190  Advanced Placement Calculus (Physics/Engineering)  1
- MATH 0090  Introductory Calculus, Part I  1
- & MATH 0100  and Introductory Calculus, Part II  1

**Required courses:**

- PHYS 0470  Electricity and Magnetism  1
- PHYS 0500  Advanced Classical Mechanics  1
- PHYS 0560  Experiments in Modern Physics  1
- PHYS 1410  Quantum Mechanics A  1
- PHYS 1530  Thermodynamics and Statistical Mechanics  1
- MATH 0180  Intermediate Calculus  1
- & MATH 0200  and Intermediate Calculus (Physics/Engineering)  1
- or MATH 0350  Honors Calculus  1
- or MATH 0540  Honors Linear Algebra  1
- MATH 1530  Abstract Algebra  1
- Four additional 1000 or 2000 level Physics courses  4
- Two additional 1000 or 2000 level Math courses  2
- PHYS 1990  Senior Conference Course  1

**Total Credits**  18-20

---

1  A senior thesis is required. This is to be prepared in connection with under the direction of a faculty supervisor.

**Physics and Philosophy**

The Physics and Philosophy concentration is for students with a deep interest in physics who do not need to acquire the laboratory and computational skills of a professional physicist. The concentration allows students to grapple with computational problems and deepen their investigation of conceptual and epistemological issues. By the end of the program, concentrators possess an excellent conceptual understanding...
of the most philosophically interesting physics, relativity and quantum mechanics.

This concentration should prepare a student either for graduate study, especially in a history and philosophy of science (HPS) program, or for employment in science education or journalism. Other professions such as law and medicine will look favorably on such concentrators for having versatile interests and being able to master difficult material. The concentration may serve as an excellent preparation for a law school since physics and philosophy both exercise a rigorous approach to problems of immediate relevance to life but at the same time assume two complimentary and sometimes competing viewpoints.

Advising
Concentration advisors from the Departments of Physics and Philosophy will guide students working towards the A.B. degree.

Curriculum
The curriculum builds around the fields of physics that have had the biggest impact on philosophy, especially Quantum Physics, and the fields of philosophy most relevant for physics, such as Epistemology, Metaphysics and Philosophy of Physics. It is strongly recommended that students complete at least one relevant history course.

There are 11 required courses (5 in Physics, 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 1610. This requires an additional 1000-level physics course in the concentration. 1000-level Physics courses cannot be taken without certain preliminary work, most importantly, PHYS 0470, which serves as a prerequisite for most higher-level physics courses and which relies in turn on PHYS 0160 or PHYS 0060. Another lower-level physics course is necessary for a student to develop familiarity with the tools which have been employed in producing the physics knowledge.

A natural introduction into philosophy of physics comes from a course in Early Modern Philosophy. To a large extent, Early Modern Philosophy was shaped by scholars who combined interest in philosophy and physics (e.g., Rene Descartes, Blaise Pascal, Gottfried Wilhelm Leibniz). The influence of the XVII century physics revolution on other central figures such as Kant is unquestionable. Early Modern Philosophy sets an intellectual stage for many subsequent developments in the Philosophy of Physics and directly addresses some of the most perplexing issues like the connection (or lack thereof) between physics and religion. The core of the Philosophy requirement involves two courses in Epistemology, Metaphysics and Philosophy of Science. One course in this field would not be sufficient due to its very broad nature. Students are strongly advised to take a relevant History course. This requirement can be substituted by an additional philosophy course to reflect interests of those students who want a deeper background in Epistemology, Metaphysics and Philosophy of Science or have other related interests such as Ancient Natural Philosophy.

In addition to the above philosophy courses, PHIL 0210 (Science, Perception, and Reality) serves as a gateway into the concentration. It may be substituted by other relevant courses such as PHYS 0100 (Flat Earth to Quantum Uncertainty: On the Nature and Meaning of Scientific Explanation).

A course in calculus is a prerequisite for most physics and some philosophy classes.

Required courses for the A.B. degree are listed below:

Physics Courses
Select one of the following introductory courses in Modern Physics:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0060</td>
<td>Foundations of Electromagnetism and Modern Physics</td>
</tr>
</tbody>
</table>

One course in Special Relativity and Classical Field Theory:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0160</td>
<td>Introduction to Relativity and Quantum Physics</td>
</tr>
</tbody>
</table>

Select one of the following in Methods of Experimental and Theoretical physics:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 0470</td>
<td>Electricity and Magnetism</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>
</tbody>
</table>

Select one of the following in Quantum Mechanics and its applications:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 1140</td>
<td>Quantum Mechanics A</td>
</tr>
<tr>
<td>PHYS 1530</td>
<td>Thermodynamics and Statistical Mechanics</td>
</tr>
</tbody>
</table>

One more 1000-level Physics course

Philosophy Courses
Select one of the following gateway courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 0210</td>
<td>Science, Perception and Reality</td>
</tr>
<tr>
<td>PHIL 0100</td>
<td>Critical Reasoning</td>
</tr>
</tbody>
</table>

Select one of the following courses in Early Modern Philosophy:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 0360</td>
<td>Early Modern Philosophy</td>
</tr>
<tr>
<td>PHIL 1700</td>
<td>British Empiricists</td>
</tr>
<tr>
<td>PHIL 1710</td>
<td>17th Century Continental Rationalism</td>
</tr>
<tr>
<td>PHIL 1720</td>
<td>Kant: The Critique of Pure Reason</td>
</tr>
</tbody>
</table>

Select two of the following courses in Epistemology, Metaphysics and Philosophy of Science:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1310</td>
<td>Myth and the Origins of Science</td>
</tr>
<tr>
<td>PHIL 1590</td>
<td>Philosophy of Science</td>
</tr>
<tr>
<td>PHIL 1610</td>
<td>Philosophy of Relativity Physics</td>
</tr>
<tr>
<td>PHIL 1620</td>
<td>Philosophy of Quantum Mechanics</td>
</tr>
<tr>
<td>PHIL 1630</td>
<td>Mathematical Logic</td>
</tr>
<tr>
<td>PHIL 1660</td>
<td>Metaphysics</td>
</tr>
<tr>
<td>PHIL 1670</td>
<td>Time</td>
</tr>
<tr>
<td>PHIL 1750</td>
<td>Epistemology</td>
</tr>
<tr>
<td>PHIL 1850</td>
<td>Philosophical Logic</td>
</tr>
</tbody>
</table>

History Courses
Select one of the following courses in History of Science:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST 1140</td>
<td>Nature, Knowledge, and Power in Renaissance Europe</td>
</tr>
<tr>
<td>HIST 1180</td>
<td>The Rise of the Scientific Worldview</td>
</tr>
<tr>
<td>HIST 1190</td>
<td>The Roots of Modern Science</td>
</tr>
<tr>
<td>HIST 1200</td>
<td>Science at the Crossroads</td>
</tr>
</tbody>
</table>

Calculus
Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 0180</td>
<td>Intermediate Calculus</td>
</tr>
<tr>
<td>MATH 0200</td>
<td>Intermediate Calculus (Physics/Engineering)</td>
</tr>
<tr>
<td>MATH 0350</td>
<td>Honors Calculus</td>
</tr>
</tbody>
</table>

Final Project
Select one of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 1990</td>
<td>Independent Studies</td>
</tr>
<tr>
<td>PHYS 1990</td>
<td>Senior Conference Course</td>
</tr>
</tbody>
</table>

A course from the PHIL 0990 Senior Seminar series

Any graduate seminar in Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
</table>

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

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.

The undergraduate concentration is organized around three broad tracks, or programs of study: American politics, international and comparative politics, and political theory. Twelve courses are required overall: ten within the Department of Political Science and two from areas outside the department related to your chosen track. Thirteen courses are required if the methods requirement is fulfilled with a course outside the department.

Requirements:

Two introductory courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 0010</td>
<td>Introduction to the American Political Process</td>
</tr>
<tr>
<td>POLS 0110</td>
<td>Introduction to Political Thought</td>
</tr>
<tr>
<td>POLS 0200</td>
<td>Introduction to Comparative Politics</td>
</tr>
<tr>
<td>POLS 0400</td>
<td>Introduction to International Politics</td>
</tr>
</tbody>
</table>

One course in the American politics subfield

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1600</td>
<td>Introduction to Comparative Politics</td>
</tr>
<tr>
<td>POLS 1920</td>
<td>Political Research Methods</td>
</tr>
</tbody>
</table>

One methods course from Political Science:

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 0500</td>
<td>Foundations of Political Analysis</td>
</tr>
<tr>
<td>POLS 1600</td>
<td>Political Research Methods</td>
</tr>
</tbody>
</table>

One research seminar from the POLS 1820, 1821, 1822 or 1823 offerings that is track related

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 1820</td>
<td>Political Research Methods</td>
</tr>
<tr>
<td>POLS 1821</td>
<td>Political Research Methods</td>
</tr>
<tr>
<td>POLS 1822</td>
<td>Political Research Methods</td>
</tr>
<tr>
<td>POLS 1823</td>
<td>Political Research Methods</td>
</tr>
</tbody>
</table>

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 may choose to complete a senior project attached to any course in 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.

Requirements starting with the class of 2016

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLS 0610</td>
<td>Mapping Portuguese-Speaking Cultures: Brazil</td>
</tr>
<tr>
<td>POLS 0620</td>
<td>Mapping Portuguese-Speaking Cultures: Portugal and Africa</td>
</tr>
<tr>
<td>POLS 1030</td>
<td>Portuguese Stylistics: Advanced Language Study and Creative Writing</td>
</tr>
<tr>
<td>POLS 1800E</td>
<td>The Brazilian Puzzle: Confronting the Post-Colonial Legacy</td>
</tr>
<tr>
<td>or POLS 1800F</td>
<td>The Lusophone World and the Struggle for Modernity</td>
</tr>
</tbody>
</table>

Total Credits: 8

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 POLS 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.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Requirements for the classes of 2014 and 2015

Using the Portuguese language as a basis, the concentration in Portuguese and Brazilian Studies allows students to develop their interests in the areas of language, literature, education, history or the social sciences in general. Beyond POBS 0400 or its equivalent as a prerequisite, the concentration consists of eight interrelated courses to be selected by the student, in consultation with the Concentration Advisor, from the offerings in Portuguese and Brazilian Studies as well as in other departments, such as History, Political Science, Africana Studies, Anthropology and Sociology. At least four courses must be conducted in Portuguese. Students may choose between two basic programs:

Program A (Language and literature focus):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POBS 0610</td>
<td>Mapping Portuguese-Speaking Cultures: Brazil</td>
<td>1</td>
</tr>
<tr>
<td>POBS 0620</td>
<td>Mapping Portuguese-Speaking Cultures: Portugal and Africa</td>
<td>1</td>
</tr>
</tbody>
</table>

At least two literature courses at the POBS 1500 level or higher. 2

A course from the POBS 1800 (Concentration Seminar) series 1

Electives 1 2

Total Credits 8

1 At least one elective should be a course outside the field of language and literature.

Program B (Interdisciplinary focus):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>POBS 0610</td>
<td>Mapping Portuguese-Speaking Cultures: Brazil</td>
<td>1</td>
</tr>
<tr>
<td>POBS 0620</td>
<td>Mapping Portuguese-Speaking Cultures: Portugal and Africa</td>
<td>1</td>
</tr>
</tbody>
</table>

A course from the POBS 1800 (Concentration Seminar) series 1

Five courses to be selected from the offerings in Portuguese and Brazilian Studies and/or related departments, such as Africana Studies, Anthropology, History, Political Science, and Sociology. 5

Total Credits 8

Honors

Applicable to all concentrators, regardless of graduation year

Candidacy for honors in Portuguese and Brazilian Studies assumes a better than average record, particularly in the concentration. Candidates for honors are required to complete an honors thesis or other approved project. Normally honors candidates will register for POBS 1990 ("Research and Preparation of Honors Projects") in Semesters VII and VIII. These independent study units may not be used to satisfy the minimum course requirement for the concentration. Honors projects are evaluated by two faculty members. Detailed information on honors is available from the concentration advisor.

Foreign Study: Study either in Brazil or in Portugal (usually in the junior year or during the summer) is encouraged as an important part of the concentration. Up to four credits from participation in foreign-study programs can be applied toward the concentration. Students should begin to prepare early for participation in such programs.

Psychology

Psychology encompasses a range of phenomena and levels of analysis in pursuit of three goals: to deepen understanding of cognitive and neural mechanisms of sensation, perception, learning, and emotion; to probe the biological and evolutionary foundations of animal behavior; and to clarify the social perception and assessment of individuals and groups. The concentration offers an array of course options, including study in quantitative methods, laboratory techniques, and senior seminars on specialized topics. Students take upper-level courses in the 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.

Concentration Requirements

Introductory Psychology: Planning a concentration and choosing elective courses requires general knowledge about the topics psychologists study. Introductory Psychology (CLPS 0010) is required for the concentration. Students may satisfy the Introductory Psychology requirement by submitting AP (score of 4 or 5) or IB (score of 5 or above) test credit or by transferring Introductory Psychology course credits from other 4-year institutions.

Quantitative: Careers in Psychology and related fields require familiarity with statistics. Therefore, the Psychology concentration requires Quantitative Methods in Psychology (CLPS 0900). CLPS 0900 is a prerequisite for most of the laboratory courses, so concentrators should plan to take this course by their fourth semester. The department does not grant concentration credit for AP Statistics, regardless of score. Students who feel that CLPS 0900 is too elementary can complete for concentration credit.

Course Distribution: Concentrators must take at least one laboratory course, which provides students with hands-on experience with research methods in a substantive area of psychology. Because the laboratory serves as the basis for independent research and is a prerequisite for the Honors program, concentrators should plan to take their lab before their senior year. This course must be taken in CLPS. Independent study or laboratory courses in other departments will not fulfill this requirement.

Advanced Seminar: Both A.B. and Sc.B. concentrators are required to take one advanced limited-enrollment seminar/critical readings course. The list of approved seminars varies yearly. Contact one of the concentration advisors for details.

AP and Transfer Credits: Students receiving AP credit for Introductory Psychology can place out of CLPS 0010, and can enroll directly in higher-level psychology courses. AP credits are not accepted for other concentration requirements. Students transferring from another college or university, or students studying abroad or at another US institution, may receive transfer credits for other concentration requirements. Please refer to our departmental policy on applying AP and transfer credits.

The A.B. degree requires 12 courses. The Sc.B. degree requires 17 courses. (Concentrators should complete either the A.B. or Sc.B. Concentration Worksheet before meeting with their Concentration Advisor.)

Requirements for the A.B. degree

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLPS 0010</td>
<td>Elementary Psychology: An Introduction to Mind and Behavior 1</td>
<td></td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Quantitative Methods in Psychology</td>
<td>1</td>
</tr>
<tr>
<td>Two courses in Perception and Cognition 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Two courses in Comparative/Physiological 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Two courses in Social/Personality/Developmental 2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>One advanced laboratory course from the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CLPS 1090</td>
<td>Research Methods in Psychology</td>
<td></td>
</tr>
<tr>
<td>CLPS 1092</td>
<td>Psychological Theory</td>
<td></td>
</tr>
<tr>
<td>CLPS 1190</td>
<td>Techniques in Physiological Psychology</td>
<td></td>
</tr>
<tr>
<td>CLPS 1191</td>
<td>Animal Behavior Laboratory</td>
<td></td>
</tr>
<tr>
<td>CLPS 1192</td>
<td>Experimental Analysis of Animal Behavior and Cognition</td>
<td></td>
</tr>
<tr>
<td>CLPS 1193</td>
<td>Laboratory in Genes and Behavior</td>
<td></td>
</tr>
<tr>
<td>CLPS 1194</td>
<td>Sleep and Chronobiology Research</td>
<td></td>
</tr>
<tr>
<td>CLPS 1290</td>
<td>Laboratory in Cognitive Processes</td>
<td></td>
</tr>
<tr>
<td>CLPS 1490</td>
<td>Functional Magnetic Resonance Imaging: Theory and Practice</td>
<td></td>
</tr>
<tr>
<td>CLPS 1491</td>
<td>Neural Modeling Laboratory</td>
<td></td>
</tr>
<tr>
<td>CLPS 1492</td>
<td>Computational Cognitive Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CLPS 1510</td>
<td>Psychology of Hearing</td>
<td></td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Requirements Specific for the Sc.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>Elementary Psychology: An Introduction to Mind</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>and Behavior</td>
<td></td>
</tr>
<tr>
<td>CLPS 0900</td>
<td>Quantitative Methods in Psychology</td>
<td>1</td>
</tr>
<tr>
<td>Two courses</td>
<td>in Perception and Cognition</td>
<td>2</td>
</tr>
<tr>
<td>Two courses</td>
<td>in Comparative/Physiological</td>
<td>2</td>
</tr>
<tr>
<td>Two courses</td>
<td>in Social/Personality/Developmental</td>
<td>2</td>
</tr>
<tr>
<td>An advanced</td>
<td>laboratory course from the following:</td>
<td>1</td>
</tr>
<tr>
<td>CLPS 1090</td>
<td>Research Methods in Psychology</td>
<td></td>
</tr>
<tr>
<td>CLPS 1092</td>
<td>Psychological Theory</td>
<td></td>
</tr>
<tr>
<td>CLPS 1190</td>
<td>Techniques in Physiological Psychology</td>
<td></td>
</tr>
<tr>
<td>CLPS 1191</td>
<td>Animal Behavior Laboratory</td>
<td></td>
</tr>
<tr>
<td>CLPS 1192</td>
<td>Experimental Analysis of Animal Behavior and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cognition</td>
<td></td>
</tr>
<tr>
<td>CLPS 1193</td>
<td>Laboratory in Genes and Behavior</td>
<td></td>
</tr>
<tr>
<td>CLPS 1194</td>
<td>Sleep and Chronobiology Research</td>
<td></td>
</tr>
<tr>
<td>CLPS 1290</td>
<td>Laboratory in Cognitive Processes</td>
<td></td>
</tr>
<tr>
<td>CLPS 1490</td>
<td>Functional Magnetic Resonance Imaging: Theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Practice</td>
<td></td>
</tr>
<tr>
<td>CLPS 1491</td>
<td>Neural Modeling Laboratory</td>
<td></td>
</tr>
<tr>
<td>CLPS 1492</td>
<td>Computational Cognitive Neuroscience</td>
<td></td>
</tr>
<tr>
<td>CLPS 1510</td>
<td>Psychology of Hearing</td>
<td></td>
</tr>
<tr>
<td>CLPS 1690</td>
<td>Laboratory in Developmental Psychology</td>
<td></td>
</tr>
<tr>
<td>An advanced</td>
<td>seminar/critical readings course in CLPS,</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>numbered above 1000</td>
<td></td>
</tr>
<tr>
<td>Six supporting</td>
<td>science courses should be selected from the following:</td>
<td>6</td>
</tr>
<tr>
<td>areas:</td>
<td>Applied Mathematics, Biology, Chemistry, Computer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sciences, Engineering, Mathematics, Neuroscience,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>or Physics</td>
<td></td>
</tr>
<tr>
<td>Total Credits</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

1. Or advanced placement with a score of 4 or 5, or transfer credit. If placement for CLPS0010 is granted on the basis of AP or IB test scores, then another CLPS course (at any level) must be substituted.
2. The pre-approved courses in each area are listed on the concentration worksheets. A laboratory course or seminar (indicated on the worksheet) may be used to meet the area requirement only if it is the student’s second lab course or second seminar. Independent study courses cannot be used for this requirement. First year seminars outside of CLPS cannot be counted for the area requirement.
3. The worksheets (http://www.brown.edu/Departments/CLPS/undergrad/psychology) include up-to-date lists of labs. Independent study courses and laboratory courses outside of CLPS cannot be used to satisfy this requirement.
4. Consult one of the concentration advisors for lists of approved courses.
5. The electives should complement the student’s main area of interest in Psychology. These courses can be taken outside of CLPS. Only courses that carry concentration credit in the home department can be used for this requirement. In addition, independent study and GISPs courses will not fulfill this requirement.
6. CLPS1980 typically involves one semester of independent research under the direct supervision of a faculty advisor in CLPS. This includes data collection and/or analysis, and a final written report. Upon department approval, the faculty advisor may be from another department or unit if the research program is within the field of psychology and approved by the concentration advisor as such. Contact the Sc.B. Concentration Advisor for further details. CLPS1980 cannot be counted for the lab requirement. The CLPS Undergraduate Concentration Committee oversees the concentration and receives petitions regarding concentration requirements.

Honors

Detailed information about the Psychology Honors program is available on a dedicated page.

Public Health

Public Health (formerly Community Health) is an interdisciplinary concentration through which students examine a variety of 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 requirements listed below are for AB Public Health concentrators in the class of 2016 and beyond. AB Community Health concentrators, in the classes of 2014 and 2015 should refer to http://bulletin.brown.edu/the-college/concentrations/comhl/, for degree requirements.

Required Courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHP 0310</td>
<td>Health Care in the United States</td>
<td>1</td>
</tr>
<tr>
<td>PHP 0320</td>
<td>Introduction to Public Health</td>
<td>1</td>
</tr>
<tr>
<td>PHP 1501</td>
<td>Essentials of Data Analysis</td>
<td>1</td>
</tr>
</tbody>
</table>

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Community Health Senior Seminar (This course should be taken as a senior.)

Fundamentals of Epidemiology

This course should be taken by the end of the student's junior year.

Environmental Health and Policy Electives (Students must select one of the following):

- PHP 1700: Current Topics in Environmental Health
- BIOL 1820: Environmental Health and Disease
- ENVS 1410: Environmental Law and Policy
- ENVS 1710: Environmental Health and Policy
- ENVS 1720: Environmental Justice: The Science and Political Economy of Environmental Health and Social Justice

Health, Health Care Systems and Policy Electives (Students must select one of the following):

- PHP 1530: Case Studies in Public Health: The Role of Governments, Communities and Professions
- PHP 1070: The Burden of Disease in Developing Countries
- PHP 1100: Comparative Health Care Systems
- PHP 1500: Global Health Nutrition
- ECON 1360: Health Economics

Social and Behavioral Science for Prevention Electives (Students must select one of the following):

- PHP 1010: Doctors and Patients- Clinical Communication in Medicine
- PHP 1400: HIV/AIDS in Africa: A Multidisciplinary Approach to Support HIV/AIDS Care and Treatment Programs
- PHP 1540: Alcohol Use and Misuse
- PHP 1600: Obesity in the 21st Century: Causes, Consequences and Countermeasures
- PHP 1680N: Tobacco, Smoking, and the Evil Empire
- PHP 1680T: Translation, Diffusion and Cultural Relevance of Health Promotion Interventions
- PHP 1740: Principles of Health Behavior and Health Promotion Interventions
- PHP 1920: Social Determinants of Health
- PHP 2310: Physical Activity and Public Health
- PHP 2320: Environmental and Policy Influences on the Obesity Epidemic
- PHP 2330: Behavioral and Social Approaches to HIV Prevention
- PHP 2340: Behavioral and Social Science Theory for Health Promotion
- PHP 2360: Designing and Evaluating Public Health Interventions
- PHP 2380: Health Communication

Approved Electives (Students must select four electives; no more than two (2) can be Human Biology/Physiology courses):

The four electives may be selected from the approved courses from the areas listed above or the approved general electives listed below.

- PHP 0030: Health of Hispaniola
- PHP 1680I: Pathology to Power: Disability, Health and Community
- PHP 1680K: Introduction to Conducting Clinical Research
- PHP 1680M: The Epidemiology of Violence and its Consequences
- ANTH 0300: Culture and Health
- ANTH 1020: AIDS in Global Perspective
- ANTH 1242: Bioethics and Culture
- ANTH 1300: Anthropology of Addictions and Recovery
- ANTH 1310: International Health: Anthropological Perspectives
- BIOL 0030: Principles of Nutrition (Human Biology/Physiology course)
- BIOL 0040: Nutrition for Fitness and Physical Activity
- BIOL 0180: The Biology of AIDS
- BIOL 0190E: Botanical Roots of Modern Medicine
- BIOL 0200: The Foundation of Living Systems (Human Biology/Physiology course)
- BIOL 0470: Genetics (Human Biology/Physiology course)
- BIOL 0475: Conservation Medicine
- BIOL 0530: Principles of Immunology (Human Biology/Physiology course)
- BIOL 0800: Principles of Physiology (Human Biology/Physiology course)
- BIOL 0860: Diet and Chronic Disease
- BIOL 0920A: Controversies in Medicine (Human Biology/Physiology course)
- BIOL 1920B: Health Inequality in Historical Perspective
- BIOL 1920C: Social Contexts of Disease
- BIOL 1920D: Race, Difference and Biomedical Research: Historical Considerations
- ENVS 0410: Environmental Stewardship
- ENVS 0490: Environmental Science in a Changing World
- ETHN 1890J: Native American Environmental Health Movements
- GNSN 1960B: Health and Healing in American History
- HMAN 1970G: International Perspectives on NGOs, Public Health, and Health Care Inequalities
- NEUR 0010: The Brain: An Introduction to Neuroscience (Human Biology/Physiology course)
- PPAI 1700J: GIS and Public Policy
- PPAI 1700K: Health Policy Challenges
- PPAI 1700V: Nonprofit Organizations
- SOC 0300B: Environment and Society
- SOC 0300E: HIV/AIDS: Politics, Culture and Society
- SOC 0300F: Unequal From Birth: Child Health From a Social Perspective
- SOC 0300K: Inequalities and Health
- SOC 1250: Perceptions of Mental Illness
- SOC 1315: Macro-Organizational Theory: Organizations in Social Context
- SOC 1410: Aging and the Quality of Life
- SOC 1540: Human Needs and Social Services
- SOC 1550: Sociology of Medicine
- SOC 1870D: Aging and Social Policy
- SOC 1871H: Social Perspectives on HIV/AIDS
- SOC 1871N: Military Health: The Quest for Healthy Violence

Total Credits: 12

Honors: An Honors track is available for students who qualify. Honors track students are also required to enroll in PHP 1980 in both semesters of their senior year to conduct research and write the honors thesis. Please visit http://brown.edu/academics/public-health/honors-track for details.

Inquiries: Prof. William Rakowski at William_Rakowski@brown.edu; Prof. Mark Lurie at Mark_Lurie@Brown.edu; Academic Program Manager, Liz Malone at Elizabeth_Malone@Brown.edu.

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

Public Policy and American Institutions is housed in the A. Alfred Taubman Center, which is dedicated to teaching, research, and service in the areas of health care and social welfare policy, educational policy, urban policy, law and criminal justice, and media and technology. Public policy refers to societal initiatives to remedy social problems. Because social problems typically emerge from complex, multi-faceted social conditions, the study of public policy requires students to become familiar with the insights of diverse academic disciplines into how institutions facilitate or inhibit societal problem-solving. The study of public policy is an excellent framework for integrating ideas drawn from several disciplines around issues of real world significance. Concentrators emerge with a sound understanding of institutional change and are well-equipped to contribute to processes of social change.

Required Courses:

Core courses:

- PPAI 0100 Introduction to Public Policy
- Ethics and Public Policy
- POLS 1050 Ethics and Public Policy
- or PPAI 1700T Good Government

Microeconomics

- ECON 1110 Intermediate Microeconomics
- ECON 1130 Intermediate Microeconomics (Mathematical)
- EDUC 1130 Economics of Education I

Research Methods

- POLS 1600 Political Research Methods
- EDUC 1110 Introductory Statistics for Research Education and Policy Analysis
- ECON 1620 Introduction to Econometrics
- ECON 1630 Econometrics I
- SOC 1100 Introductory Statistics for Social Research

Policy Analysis and Program Evaluation

- PPAI 1200 Policy Analysis and Program Evaluation
- or EDUC 1160 Evaluating the Impact of Social Programs

Elective Courses:

1. Two courses in American Institutions
2. One course in global policy
2. Two courses in policy problems

Total Credits 11

1 Two of the five elective courses must have a primary listing in Public Policy. One of the five elective courses must be designated as a writing course.

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 seeks to understand and interpret religions in various historical, cultural, and social contexts. It fosters scholarly skills such as close reading (of texts and other social and material data), excellence in writing and verbal expression, interpretation of the past from written and physical evidence, and interpretation of contemporary society. By exploring the public and private concerns that religions engage—for example, the nature of community and solitude, suffering and death, good and evil—students discover new ways of interpreting the complex world in which they live. As students venture into the religions of Asia, the Middle East, Africa, the Americas, and Europe, they learn about the formation and transmission of beliefs, behaviors, values, rituals, texts, institutions, and forms of community. Students also learn about conflict and accord within and between religions, as well as between religious and non-religious perspectives.

Concentration in religious studies includes course work in RELS 1000 (junior seminar in methods in the study of religion) and eight other courses conforming to the following requirements.

Each student in consultation with appropriate faculty members devises a concentration program. The student presents (for approval by the concentration advisor) a written statement of the objectives of his or her concentration program and a list of the component courses. The program is expected to encompass the study of at least one religious tradition from each of the following groups. Ordinarily, this requirement is satisfied by two or more courses in each of these areas:

1. Traditions that emerge from West Asia and the Mediterranean world
2. Traditions that emerge from South and East Asia

The plan of study must take account of more than one approach to the study of religion, e.g., philosophical and historical; contain at least two Intermediate-level courses (0200-0999), RELS 1000, and two additional advanced-level courses (above 1000). This means that no more than four courses (out of nine) can be at the introductory level. Courses listed in other departments that are taught by religious studies faculty count toward the program. Up to three courses that are outside the department and not taught by religious studies faculty can count toward the program.

No later than the end of spring registration in the junior year, the concentrator will determine whether he or she will write an honors thesis or complete a capstone project for the concentration. A capstone course will be selected in consultation with the concentration advisor and other faculty as appropriate. Within the frame of this capstone course, the concentrator will address the theoretical and interpretive issues of his or her particular focus in the religious studies concentration.

Honors

A religious studies concentration with Honors requires, in addition to RELS 1000 and eight other courses, an Honors thesis (RELS 1999, during both semesters of the senior year). A thesis is an opportunity for students to conduct extended independent research under the guidance of faculty. 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 can elect to take no more than two of the concentration courses with the “S/NC” option, after declaring a Religious Studies concentration. (If a student is philosophically committed to taking the majority of her or his courses at a “S/NC,” that student may petition the Department to waive the “S/NC” limit). Writing the thesis is a necessary, but not sufficient, condition for receiving Honors. The thesis must earn an A from its readers for the student to receive Honors, and the student must have earned a grade point average of greater than 3.5 in the concentration (as well as satisfy all the other concentration requirements). Students who study abroad, or who petition to include Brown courses not cross-listed with Religious Studies, must still complete at least five courses in Religious Studies.

Nancy Khalek, Director of Undergraduate Studies
Tina Creamer, Departmental Administrator

Renaissance and Early Modern Studies

The Program in Renaissance and Early Modern Studies (REMS) encourages students to pursue interdisciplinary and multidisciplinary approaches to the study of Europe and its relation with the Americas and Asia in the early modern period. Students focus on the late fourteenth through the late eighteenth centuries—a time marked by scientific and agricultural revolutions, the Reformation, the development of capitalism, and the rise of cultural forms such as the novel, opera, Grub Street journalism and the art market. Concentrators examine the development of new cultural and political forms through the imitation and reworking of those of classical antiquity, the restructuring of patriarchal society, and the
emergence of the sovereign nation state. Students take courses in more than a dozen departments affiliated with REMS.

Sponsoring departments include: Africana Studies, Archaeology and the Ancient World, Classics, Comparative Literature, English, French Studies, Hispanic Studies, History, History of Art and Architecture, History of Mathematics, Italian Studies, Judaic Studies, Music, Philosophy, Portuguese and Brazilian Studies, Slavic Languages, and Theatre Arts and Performance Studies. Students are invited to take advantage of this breadth of offerings in order to enhance their understanding of the period, as well as to gain a sense of the uses, limitations, and interrelationships of particular disciplinary approaches.

Requirements

Concentrators are required to take a minimum of 8 courses. These include the following:

1. Three courses on Renaissance and/or early modern topics in one field in which the student has primary interest or training, (for example, literature, history of art and architecture, or history).
2. Three courses related to the Renaissance and/or early modern period chosen from two other fields.
3. A senior project. (Credit will be granted through registration for Independent Study in the department in which the topic of research lies.)
4. Another relevant course of the student's choosing.

In addition, the student must be able to demonstrate a reading knowledge of a relevant modern or ancient language other than English. This language requirement does not count as one of the 8 courses.

Honors

Interested and eligible students will petition to write a thesis and the faculty will choose the Honors group for that year from the applications, making every effort to accommodate all eligible proposals. Selection is based upon the quality of the application, the preparedness of the student to undertake the project, and the availability of appropriate advisors for the subject. Applications will be due to the Director of REMS in mid-April of the student's junior year.

For those accepted, the Honors program will be administered as follows:

Students will sign up for REMS 1980 in the Fall and again in the Spring, with the section number of their advisor. Students must meet regularly with their advisors and second readers throughout the year according to a schedule determined by each student and advisor. Finished drafts of the thesis (which will be about 35 pages in length, not counting bibliography and visual or other supporting materials) will be due to the advisor and second reader on April 1 of the Spring semester. Comments will be returned to the students for final polishing and corrections at that point. Students will receive Honors when both their primary advisor and their second reader have provided written statements in support of the finished project. The finished paper, which should be a polished and revised, edited, professional work of original research, will be made available to the entire REMS faculty at the Annmary Brown Memorial, with a folder for leaving constructive comments on the finished thesis for the concentrator. This is an optional engagement that we hope will become part of the culture of the program. There will be a public presentation of the Honors work at the end of the Spring semester.

Students planning a December graduation will not be eligible for the Honors Thesis program, although as always they are welcome to work out other ways to pursue projects of independent interest in consultation with an academic advisor.

Students wishing to write an honors thesis must have an A average in the concentration, which means that they will not have received more than one “B” or “S” in any course used for the concentration. Classes taken S/NC may be considered as qualifying the student for Honors if they are marked “S with distinction,” meaning that had the student taken the course for a grade, the grade would have been an “A.” It is advisable for them to have taken at least one class with the person who will advise the thesis, and have already written a research paper before choosing to undertake this year-long writing project. Honors students are strongly encouraged not to take more than 4 classes either semester of their senior year—the Honors class being considered one of the four classes.

Application process:

Each application shall consist of:
1. A very brief (one or two paragraph) cover letter identifying the most appropriate advisor and second readers, and stating also the student’s preparation is for the project. Second readers may be professors who work in areas related to the topic, or in some very special cases (and with advisor’s approval) may be practitioners with whom the student already worked closely, for example.
2. A 2 page double-spaced abstract stating and explaining the topic (subject and argument) of the research to be undertaken, written as clearly as possible.
3. A one-page working bibliography of the most relevant books and major articles to be consulted for the project.
4. A current résumé,
5. A printout of the most recent transcript

The senior project constitutes the capstone for all concentrators. Examples of possible senior projects are: a senior thesis (roughly equivalent to a senior seminar paper), the staging of an early modern play, the performance of early modern music, or an exhibition. The final project will be developed in consultation with two REMS faculty advisors who work closely with the student. Credit is granted through registration for Independent Study in the department for which the topic of research lies.

Liberal Learning

This concentration will help develop your aesthetic awareness, close reading skills, collaborative skills, cultural understanding, facility with symbolic languages, historical awareness, and your speaking and writing.

Science and Society

Science and Society is an interdisciplinary concentration that examines the processes of scientific discovery and the establishment of scientific policies and systems of belief from historical, philosophical, anthropological, and sociological perspectives. Concentrators analyze the practices, norms, and values that reflect and shape our deepest convictions about what is considered “science.” Students select courses in the physical sciences, life sciences, or mathematics and choose a thematic track that may include the history and philosophy of science, gender and science, race, science and ethnicity, health and medicine, environment and society, or they may create their own independent focus. Science and Society prepares students to follow, guide, and shape scientific knowledge as it travels from the laboratory into the public arena.

Requirements

Consisting of 12 courses, the program of study outlined below will be developed by each student in consultation with the concentration advisor. Where appropriate, independent reading, lab courses or GISP 100 may count for up to three of the twelve total courses. Students will take a minimum of 7 intermediate to advanced courses.

Required Courses (2)

The concentration has two required courses.
• SCSO 1000: Gender, Science and Society, or equivalent introductory course; usually taken in the second or third year.
• SCSO 1900: Senior Seminar, also open to non-majors with the proper background, usually taken senior year.

Thematic Track (3)

Students will organize their course of study around the choice of a thematic track. The theme may be thought of as the applied content portion of the concentration. Students will take a minimum of three courses, at least one of which must be at an advanced level, in one of the thematic areas listed below:
• History & Philosophy of Science
• Gender & Science
• Race, Science & Ethnicity
• Health & Medicine

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

Graduates 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 0090 Introductory Calculus, Part I 1
SOC 1100 Introductory Statistics for Social Research 1
or APMA 0650 Essential Statistics
or ECON 1620 Introduction to Econometrics
SOC 1020 Methods of Social Research 1
SOC 2010 Multivariate Statistical Methods I 1
SOC 1010 Classical Sociological Theory 1

Three (3) substantive or theory courses (non-methodological courses) in Sociology, two (2) of which must be at the 1000-level or above

Three (3) of the following advanced analysis courses: 3
SOC 1120 Market and Social Surveys
SOC 1117 Focus Groups for Market and Social Research
SOC 1260 Market Research in Public and Private Sectors
SOC 1340 Principles and Methods of Geographic Information Systems
SOC 2610 Spatial Thinking in Social Science
SOC 2960G Spatial Data Analysis Techniques in the Social Sciences
SOC 2230 Techniques of Demographic Analysis
SOC 2210 Qualitative Methods
SOC 2020 Multivariate Statistical Methods II
SOC 2240 Event History Analysis

Capstone Experience (1-2 courses) 1-2
A one-semester research internship (not for credit or for credit as SOC 1970 - Independent Study), or a summer research internship (not for credit)
Sociology Senior Seminar (SOC 1950)

Total Number of Courses (12-13) 12-13

Course Substitutions: Students may petition the Undergraduate Concentration Advisor to use one advanced analysis course taken in another department to count toward the three required advanced analysis courses.

Research Internship

Slavic Studies
Slavic Studies is concerned with the languages, literatures, and civilizations of the Slavic world. Built on sound knowledge of one or two Slavic languages (normally Russian or Czech) the program allows students to develop an in-depth appreciation and understanding of East European cultures and civilizations through a broad spectrum of interdisciplinary fields. Students take courses in literature, history, culture, theater, political science, economics, and international relations. Concentrators focusing on Russia learn one of the world’s most commonly spoken languages and study some of the world’s best-regarded authors and composers: Tolstoy and Dostoevsky, Gogol and Bulgakov, Tchaikovsky and Mussorgsky, and Rachmaninoff and Stravinsky. Focusing on Czech allows students to explore, for example, how Czechs distinguished themselves by peacefully transitioning from communism to capitalism (the “Velvet Revolution”) and separating peacefully with the Slovak Republic (the “Velvet Divorce”). Most concentrators study abroad in a Slavic country, either during the academic year or the summer.

Requirements for the AB degree:
1. Six semesters of one Slavic language or the equivalent (normally Czech or Russian), or a combined total of eight semesters of two Slavic languages or the equivalent.
2. Seven 1000-level courses devoted to the study of the East European civilizations: literature, history, culture, theater, political science, economics, international relations. Typically, at least four of these courses will be from within the Department of Slavic Languages. Students’ choice of courses is subject to the approval of the concentration advisor.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
A one semester or a summer research internship is required. The research internship is designed to provide students with hands-on experience in social research. Students will typically complete the research internship in their junior year or during the summer between their junior and senior years. Students need to submit an Internship Proposal Form to the Undergraduate Concentration Advisor for approval prior to starting the internship. Upon completion of the internship, students are required to submit to the Undergraduate Concentration Advisor a brief summary report of their experience, which must be signed by the supervisor of the student’s internship.

Academic research internships involve work on a faculty member’s research project. Activities may range from data collection, data entry, data file management, descriptive analyses, and more advanced model estimation. Students are encouraged to approach faculty about opportunities for working on their research projects. Off-campus research internships are arranged through the Sociology Department Students Affairs Coordinator or the Undergraduate Concentration Advisor. Academic and off-campus research internships will typically entail 5-10 hours of work per week and may or may not involve compensation. Students may receive academic credit for academic research internships and off-campus internships completed during the academic year if they combine the internship experience with an academic component under the direction of a faculty advisor. Students taking an internship for credit should register for an Individual Research Project (SOC 1970).

The Senior Seminar

The concentration in Social Analysis and Research requires all concentrators to complete a thesis or project in their senior year as a capstone experience. The purpose of the thesis or project is to allow students an opportunity to apply the knowledge they acquired on a topic of their own interests. This capstone experience provides a hands on experience through which students learn what can be done with sociological research methods. To fulfill the capstone requirement students enroll in SOC 1950- Senior Seminar during the senior year. SOC 1950 is a one credit course that students take across two successive semesters. Students receive 0.5 credit in each semester. The senior seminar is focused on finalizing a senior project or thesis and giving a presentation of the completed work. Participation in this seminar allows each cohort of concentrators to discuss diverse interests and exposes them to a wide range of applications of sociological knowledge.

The senior thesis is supervised by a faculty member who serves as the primary advisor, and one additional faculty member who serves as a reader. The primary advisor and the reader are chosen by the student and approved by the Concentration Advisor. The reader will receive a draft and a finished copy of the students thesis, which the reader will be responsible to grade. The reader may be involved in the earlier development of the thesis depending upon the arrangement made by the student with the reader. The Senior thesis will normally consist of a major research project. By the end of the sixth semester, students must submit a prospectus of the senior thesis to the Concentration Advisor. The start of the senior thesis semester students should submit to the Concentration Advisor a proposal (not more than four pages) accompanied by the signature of one faculty member indicating that he or she is willing to serve as primary advisor on the thesis. Only a senior thesis qualifies the student for Honors. A thesis typically includes one or two semesters of course credit through SOC 1980 - Senior Thesis/Project (fall semester) and/ or SOC 1990 - Senior Thesis/ Project (spring semester). SOC 1980 and SOC 1990 do not count toward the 12-13 course requirement for the concentration.

A senior project differs from a thesis in its scholarly content and form, and it depends only on the evaluation of the senior seminar instructor (although students may elect to have a faculty advisor for the project, in addition to the senior seminar instructor). Whereas the senior thesis follows the form of a conventional research paper, the project allows a wider array of research and creative outputs, including, but not limited to video documentaries, photographic exhibitions, and applied or policy related reports with an off-campus organization. projects should be complemented by an analytical paper that situates the central subject matter of the project within the context of sociological scholarship.

You should decide your senior project in consultation with the Concentration Advisor and the instructor of the Senior Seminar. You may also need to approach a specific faculty member within the department to advise you on your project. At the beginning of your senior year you should file a written statement with the Concentration Advisor describing your senior project and listing your advisor for the project (if you opt to have one outside of the SOC 1950 instructor). Students who have a faculty advisor on their senior project may register for SOC 1980 Senior Thesis/Project (fall semester) and SOC 1990 Senior Thesis/Project (spring semester). SOC 1980 and SOC 1990 do not count toward the 12-13 course requirement for the concentration.

Due Dates

During the second week of March, a complete draft of the senior thesis must be given to the faculty advisor and the reader for comments, and the final version of the senior thesis is due during the second week of April (exact dates vary from year to year and are announced at the start of the academic year).

During the second week of March, a complete draft of the senior project must be given to the instructor of the senior seminar and the faculty advisor (if the student has one) for comments, and the final version of the senior project is due during the second week of April (the exact dates vary from year to year and are announced at the start of the academic year).

These deadlines are essential to allow the faculty time to evaluate theses for awards, and to notify the Registrar with recommendations for honors. NO EXTENSIONS WILL BE GRANTED.

Honors

In order to be considered for honors, students must receive a grade point average of at least 3.5 (A-4, B-3, C-2) on all concentration courses taken, and no more than one (1) of the concentration courses with the “S/ NC” option. Honors also requires a senior thesis, with a recommendation of Honors by the advisor and reader, that demonstrates an understanding of empirical research.

Independent Study

Students can use no more than one (1) Independent Study course (SOC 1970 to meet the concentration course requirements. This course counts towards a 1000 level substantive requirement and will not serve as a substitute for any of the core concentration requirement.

Sociology

Sociology seeks to understand human behavior by studying how individuals connect to the groups and institutions in which they live. Sociologists analyze the interrelationship of social structures with political, economic, and cultural forces, from the micro to the macro level. As a discipline, sociology provides students with the conceptual and analytic tools to make sense of complex social structures in a rapidly changing global environment. Brown’s Sociology department brings together a dynamic group of scholars with international reputations for outstanding achievement in a range of important research areas -- social demography, health and medicine, environmental justice and environmental change, development, politics and democracy, urban and spatial analysis, and organizations and occupations.

Standard program for the A.B. degree

Ten courses are required:

Requirements: (10 course)

One introductory level course to be selected from: 1

SOC 0010 Perspectives on Society

SOC 0020 Perspectives on Social Interaction: An Introduction to Social Psychology

SOC 0130 American Heritage: Democracy, Inequality, and Public Policy

SOC 1010 Classical Sociological Theory

SOC 1020 Methods of Social Research

SOC 1100 Introductory Statistics for Social Research (or APMA 0650 or ECON 1620)

Two semesters of SOC 1950 Senior Seminar (.500 credit course each semester in senior year)
Five additional courses 5

a. At least three of the optional courses have to be 1000 level and one of them must be a substantive seminar (1870/1871).
b. Students can choose to take up to two (showcase) lower level (0100 level) courses.
c. Students can petition to take one course outside of the concentration (this will be allowed only when the proposed course makes sense given the interests of the student, and there is no equivalent sociology course).

Total Credits 10

The Senior Seminar
Sociology requires all concentrators to complete a thesis or project in their senior year as a capstone experience. The purpose of the thesis or project is to allow students an opportunity to apply the knowledge they acquired on a topic of their own interests. This capstone experience provides a hands on experience through which students learn what can be done with Sociology. To fulfill the capstone requirement students enroll in SOC 1980 – Senior Seminar during the senior year. is a one credit course that students take across two successive semesters. Students receive 0.5 credit in each semester. The senior seminar is focused on finalizing a senior project or thesis and giving a presentation of the completed work. Participation in this seminar allows each cohort of concentrators to discuss their diverse interests and expose them to the wide range of applications of Sociological knowledge.

The senior thesis is supervised by a faculty member who serves as the primary advisor, and one additional faculty member who serves as a reader. The primary advisor and the reader are chosen by the student and approved by the Concentration Advisor. The reader will receive a draft and a finished copy of the student’s thesis, which the reader will be responsible to grade. The reader may be involved in the earlier development of the thesis depending upon the arrangement made by the student with the reader. The senior thesis will normally consist of a major research paper. By the end of the sixth semester, students must submit a prospectus of the senior thesis to the Concentration Advisor. At the start of the seventh semester students should submit to the Concentration Advisor a proposal (not more than four pages) accompanied by the signature of one faculty member indicating that he or she is willing to serve as primary advisor on the thesis. Only a senior thesis qualifies the student for Honors. A thesis typically includes one or two semesters of course credit through - Senior Thesis/Project (fall semester) and/or - Senior Thesis/Project (spring semester), and do not count toward the 10 course requirement for the concentration.

A senior project differs from a thesis in its scholarly content and form, and it depends only on the evaluation of the senior seminar instructor (although students may elect to have a faculty advisor for the project, in addition to the senior seminar instructor). Whereas the senior thesis follows the form of a conventional research paper, the project allows a wider array of research and creative outputs, including but not limited to video documentaries, photographic exhibitions, and applied or policy related reports with an off-campus organization. Projects should be complemented by an analytical paper that situates the central subject matter of the project within the context of sociological scholarship.

You should decide your senior project in consultation with the Concentration Advisor and the instructor of the Senior Seminar. You may also need to approach a specific faculty member within the department to advise you on your project. At the beginning of your senior year you should file a written statement the Concentration Advisor describing your senior project (if you opt to have one outside of the instructor). Students who have a faculty advisor on their senior project may register for - Senior Thesis/Project (fall semester) and/or - Senior Thesis/Project (spring semester). SOC 1980 and SOC 1990 do not count towards the 10 course requirement for the concentration.

Due Dates
During the second week of March, a complete draft of the senior thesis must be given to the faculty advisor and the reader for comments, and the final version of the thesis is due during the second week of April (the exact dates vary from year to year and are announced at the start of the academic year).

During the second week of March, a complete draft of the senior project must be given to the instructor of the senior seminar and the faculty advisor (if the student has one) for comments, and the final version of the senior project is due during the second week of April (the exact dates vary from year to year and are announced at the beginning of the academic year).

These deadlines are essential to allow faculty time to evaluate theses for awards, and to notify the Registrar with recommendations for honors. NO EXCEPTIONS WILL BE GRANTED

Honors
In order to be considered for honors, students must receive a grade point average of at least 3.5 (A=4, B=3, C=2) on all concentration courses taken, and can take no more than one (1) of the concentration courses with the "SINC" option. Honors also requires a senior thesis, with a recommendation of Honors by the advisor and reader, that demonstrates an understanding of empirical research.

Independent Study
Students can use no more than one (1) Independent Study course to meet the concentration course requirements. This course counts only towards a 1000 level substantive requirement and will not serve as a substitute for any of the core concentration requirements.

South Asian Studies
The diversity and shared histories of South Asia’s cultures, religions, languages, and nations are an important area of engagement in the world today. While India, Pakistan, Bangladesh, Sri Lanka, Nepal and neighboring nation-states constitute a recognizable geographic region, the equally vital diasporic communities from South Asia and their globally dispersed networks extend our understanding of an old and yet changing South Asia. South Asian Studies is an interdisciplinary concentration in which students work in a specified chronological period (e.g. ancient, medieval, early modern, or contemporary), in a geographical area (e.g. Bangladesh, Bengal, Maharashtra, North India, Pakistan, South India), or in a particular discipline (e.g. anthropology, Hindi/Urdu, history, religion, or Sanskrit) but also take courses outside of their chosen area of emphasis in disciplines such as economics, literature, philosophy, political science, or theatre arts.

Course Requirements
All South Asian Studies concentrators must take and pass 10 courses as approved by their concentration advisor.

HIST 1580  Gandhi’s India: South Asia Before 1947 1
Select at least one of the following courses in pre-modern history, philosophy, religious studies and literature:

CLAS 0180  Indian Civilization through Its Literature 1
CLAS 0800  Religious and Philosophical Thought in Ancient India 1

CLAS 0820  Epics of India 1
CLAS 0990  Concepts of the Self in Classical Indian Literature 1
CLAS 1140  Classical Philosophy of India 1
HIST 1590  Beyond Hindu, Muslim: Recovering Early South Asia 1
REL&S 1010  Religions of South Asia 1
REL&S 1030  Religions of Classical India 1

Select at least one of the following social science course: 1

ANTH 1250  Film and Anthropology: Identity and Images of Indian Societies 1
ANTH 1321  Impact on Colonialism: Gender and Nationalism in India 1
ANTH 1131  Indian Issues in Anthropological Perspective 1
ANTH 2321  Coming to Terms with India: Anthropology of Colonialism and Nationalism 1
POLS 1280  Politics, Economy and Society in India 1

At least one course in the visual arts, modern literature, music, cinema, or theatre of South Asia such as:

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
HIAA 0060 Introduction to Indian Art
HIAA 1410A Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
HNDI 1080 Advanced Hindi-Urdu
MUSC 1933 Music of India
PRSN 1200 Iranian Cinema: Before and After the Islamic Revolution
RELS 0910 Music, Drama and Religion in India
TAPS 1270 Masking, Trancing, Performing, and Spectating in Non-Western and Circumpacific Performance

An Honors Thesis or a Capstone Course taken in an appropriate Department.

Five electives

1. ANTH 0066K International Perspectives of Women’s Agency and Society
2. ANTH 1131 Indian Issues in Anthropological Perspective
3. ANTH 1220 Comparative Sex Roles
4. ANTH 1250 Film and Anthropology: Identity and Images of Indian Societies
5. ANTH 2320 Ideology of Development
6. ANTH 2321 Coming to Terms with India: Anthropology of Colonialism and Nationalism
7. CLAS 0180 Indian Civilization through Its Literature
8. CLAS 0800 Religious and Philosophical Thought in Ancient India
9. CLAS 0820 Epics of India
10. CLAS 0990 Concepts of the Self in Classical Indian Literature
11. CLAS 1140 Classical Philosophy of India

Several courses in Development Studies are potentially appropriate; check to see if the course allows for a South Asian focus

1. ECON 1520 The Economic Analysis of Institutions
2. HIAA 0060 Introduction to Indian Art
3. HIAA 1410A Topics in Islamic Art: Islamic Art and Architecture on the Indian Subcontinent
4. HIST 0970V The American South in History and Memory
5. HIST 1971L History of Islamic Law: Theory and Practice
6. HIST 1440 Islamic History, 1400-1800
7. HIST 1580 Gandhi’s India: South Asia Before 1947
8. HIST 1590 Beyond Hindu, Muslim: Recovering Early South Asia
10. HIST 1950E Europe and the Indian Ocean, 1500 - 1800
12. HIST 2971A Science in a Colonial Context

Several courses in International Relations are potentially appropriate; check to see if the course allows for a South Asian focus

1. HNDI 0100 Beginning Hindi or Urdu
2. HNDI 0200 Beginning Hindi or Urdu
3. HNDI 0300 Intermediate Hindi-Urdu
4. HNDI 0400 Intermediate Hindi-Urdu
5. HNDI 1080 Advanced Hindi-Urdu
6. MUSC 0041 World Music Cultures (Middle East and Asia)
7. MUSC 1933 Music of India
8. PHIL 0030 Philosophy East and West
9. POLS 1280 Politics, Economy and Society in India
10. POLS 1821O Politics of Economic Development in Asia
11. POLS 1380 Ethnic Politics and Conflict

POLS 1430 Roots of Radical Islam
PRSN 0100 Basic Persian
PRSN 0200 Basic Persian
PRSN 0300 Intermediate Persian Language and Culture
PRSN 0400 Intermediate Persian Language and Culture
PRSN 1200 Iranian Cinema: Before and After the Islamic Revolution
RELS 0040 Great Contemplative Traditions of Asia
RELS 0090B Hindu and Christian Modes of Loving Devotion
RELS 0100 Introduction to Buddhism
RELS 0130 Religions of Classical India
RELS 0140 Religions of South Asia
RELS 0150 Islam Unveiled
RELS 0500 The Theory and Practice of Buddhist Meditation
RELS 0540 Buddhist Psychology
RELS 0610 Sacrifice and Society
RELS 0640 Dying To Be With God: Jihad, Past and Present
RELS 0910 Music, Drama and Religion in India
RELS 1520 Pilgrimage and Sacred Travel in the Lands of Islam
RELS 1530A Methods and Problems in Islamic Studies: Narratives
RELS 1540 Monks, Mystics and Martyrs: Abrahamic Traditions Compared
SANS 0100 Elementary Sanskrit I
SANS 0200 Elementary Sanskrit II
SANS 0300 Sanskrit Epic Narrative
SANS 0400 Classical Sanskrit Story Literature
SANS 0920 Early Sanskrit Philosophy and Religion
SANS 1080 The Critical Episodes of the Mahabharata
SANS 1100 Vedic Sanskrit
SANS 1400 The Sanskrit Grammatical Tradition
SANS 1800 Classical Schools of Indian Philosophy
SANS 1910 Advanced Sanskrit
SANS 1990 Conference: Especially for Honors Students
TAPS 1270 Masking, Trancing, Performing, and Spectating in Non-Western and Circumpacific Performance

Total Credits: 10

1. Two of which may be language courses in Hindi/Urdu or Sanskrit taken in conjunction with the language requirement. This list is not exhaustive, as any class which allows the concentrator to complete a substantial final project on South Asia may be counted towards the concentration requirements. If course rotations or the introduction of new courses warrant, substitutions within these categories may be made with approval of the faculty advisor.

Language Requirements
Proficiency in a South Asian language is required for the concentration. Students who are not native speakers of a South Asian language may prove proficiency by taking two years of Hindi/Urdu or Sanskrit at Brown, by successfully passing a course at the intermediate (4th semester) level at Brown or the approved equivalent at another institution, or by successfully passing a special examination administered by an approved faculty member. Two courses taken to fulfill the language requirement may be counted among the elective courses required for concentration.

Study Abroad
All South Asian Studies concentrators are encouraged to take Hindi/Urdu and to participate in Brown in India, a junior-year study abroad program at St. Stephen’s College and Lady Sri Ram College in Delhi. Students can also opt to enroll in any other Brown approved study-abroad program in South Asia.

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
Capstone Project
All concentrators other than honors concentrators will designate an upper-level course in the area of their primary focus as their capstone course. The student will take this course during the senior year and will produce as part of the written work for the course a substantial paper or annotated translation displaying the unique focus of his or her concentration.

Honors
A South Asian Studies Concentration with Honors requires a high B or A average in courses taken for the concentration as well as an honors thesis in the department of the student’s main focus. Candidates for the honors program should apply to the South Asia Faculty Group through their advisor by the middle of their sixth semester.

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 choose an avenue of focus among them. Everyone graduates having studied craft, gained familiarity with history, and investigated the role of performance arts in culture.

Theatre Arts Track
This concentration combines the study of dramatic literature, theatre history, performance theory, and studio work in the various theatre arts. All concentrators in Theatre Arts will gain practical experience through the study of acting and directing as well as in the technical production of plays, preparing students in the practical study of a cross-section of the vital aspects of theatre craft, including one class in either dance or speech. An essential aim of the concentration track is the engagement of students in performance procedures (acting, dancing, directing, choreography, design, playwriting, dramaturgy, etc.) in order to experience the inter-relationships among social contexts, dramatic texts and theatrical enactments. Along with practical study in craft, concentrators will graduate having studied theatre history and performance theory in global perspective. The study of theatre history provides a Theatre Arts concentrator with the necessary background to understand a variety of dramatic and theatrical forms. The study of performance theory enhances a student’s ability to ask fundamental questions about the role of theatre in social, political, cultural, and cross-cultural arenas.

Of the ten courses required, at least four must be in theatre history and dramatic and theatrical theory that forms a backbone for further study in these areas. Students should take at least one course that exhibits geographic or topical breadth beyond what might loosely be called “mainstream” Euro-American tradition. Basic courses in technical theatre and design are required of all students, as is a senior seminar, taken by students in their seventh semester. The remaining three courses for the concentration may be taken in areas of applied theatre arts (though this is not a requirement); there are sequences of courses available in acting/directing, playwriting, design/technical theatre, and dance.

Students wishing to enroll as concentrators in Theatre Arts and Performance Studies and take the Theatre Arts track should see the undergraduate Theatre Arts track advisor, in order to discuss options that will best serve their interests.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAPS 1230</td>
<td>Performance Theory and World Theatre History: Paleolithic to Medieval</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1240</td>
<td>Performance Historiography and Theatre History</td>
<td>1</td>
</tr>
<tr>
<td>Select three of the following (one of which must show geographical breadth):</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TAPS 1250</td>
<td>Twentieth-Century Western Theatre and Performance</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1260</td>
<td>Dance History: The 20th Century</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1270</td>
<td>New Theories for a Baroque Stage</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1270</td>
<td>Performance Theory and World Theatre History: Paleolithic to Medieval</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1280N</td>
<td>New Theories for a Baroque Stage</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1630</td>
<td>Mise en Scene</td>
<td>3</td>
</tr>
<tr>
<td>TAPS 1640</td>
<td>Contemporary Mande Performance</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1650</td>
<td>Russian Theatre and Drama</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1660</td>
<td>Political Theatre of the Americas</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1670</td>
<td>Theatre and Conquest in Greater Mexico: From Cortes to NAFTA</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1680</td>
<td>Theatre and Conquest in Greater Mexico: From Cortes to NAFTA</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 two of the ten required classes must show geographic or cultural breadth, and be approved as such by the undergraduate concentration advisor. Participation in practical classes in modes of performance is also required.

Students wishing to enroll as concentrators in Theatre Arts and Performance Studies and take the Performance Studies track should see the undergraduate Performance Studies track advisor, in order to discuss options that will best serve their interests.

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>Performance Theory and World Theatre History: Paleolithic to Medieval</td>
<td>1</td>
</tr>
<tr>
<td>TAPS 1240</td>
<td>Performance Historiography and Theatre History</td>
<td>1</td>
</tr>
<tr>
<td>Select one of the following:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TAPS 0220</td>
<td>Persuasive Communication</td>
<td>1</td>
</tr>
<tr>
<td>Any dance history or practice course.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Three electives to be selected from applied areas and/or from relevant theoretical and text-based studies throughout the university, at least one of which must show geographical breadth.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TAPS 1520</td>
<td>Seminar in Theatre Arts</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Credits 10

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

Concentrators explore the craft and sensibility of writing for live performance in the broad context of art in a changing society. Moving through a graduated series of skill-based writing classes, students additionally encounter theater history in core courses and focused seminars, engage with the practical aspects of production, and relate theatre to other disciplines. Writing is viewed neither as an alienated cause nor a terminal outpost, but as a co-equal aspect of a creative ecology, theatre to other disciplines. Writing is viewed neither as an alienated cause

Two full credit courses based in performance craft in either Acting, Directing, Speech, Dance, Design, Literary Arts (with a performance emphasis), Visual Arts, or Music. These classes must be approved by the concentration advisor.

Two additional courses in the academic study of performance and performance culture(s) to be culled from those listed above as well as other courses in the Department of Theatre Arts and Performance Studies or throughout the university in consultation with advisor. For example:

AFRI 1070 RPM: Traditional and Contemporary Elements of Intertribal Indigenous Theater in America
AFRI 1120 African American Folk Traditions and Cultural Expression
ANTH 1212 The Anthropology of Play
HIST 1970K The Practice and Theory of Everyday Life
MCM 1502J Race as Archive
MUSC 0040 World Music Cultures (Africa, America, Europe, Oceania)
REL S 0910 Music, Drama and Religion in India
REL S 1610 Sacrifice and Society
TAPS 1520 Seminar in Theatre Arts

Total Credits: 10

Required Courses

TAPS 1670 Latino/a Theatre and Performance
TAPS 1690 Performance, Art, and Everyday Life
TAPS 2120 Revolution as a Work of Art
AFRI 0990 Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre
AFRI 1110 Voices Beneath the Veil
AFRI 1120 African American Folk Traditions and Cultural Expression

Select one of the following: 2

AFRI 1050A Advanced RPM Playwriting
AFRI 1050D Intermediate RPM Playwriting
AFRI 1050E RPM Playwriting
LITR 0610A Unpublishable Writing
LITR 1150Q Reading, Writing and Thinking for the Stage
LITR 1010C Advanced Playwriting
LITR 1150S What Moves at the Margins
TAPS 0200 Playwriting II

A writing or composition class in a discipline outside of playwriting (e.g., literature, screenwriting, digital media), to be approved by advisor. For example:

TAPS 1210 Solo Performance
TAPS 1280S Libretto Workshop for Musical Theatre
TAPS 1500I Screenwriting
TAPS 1500J Script Adaptation
ENVS 0520 Wild Literature in the Urban Landscape
ETHN 0300 Ethnic Writing
LITR 0110A Fiction I
LITR 0110B Poetry I
LITR 0210A Fiction Writing II
LITR 0210B Poetry Writing II
LITR 0210D Digital Language Art II
LITR 1010G Cave Writing
LITR 1150E Strange Attractors: Adaptations/Translations
LITR 1150M Short Fiction Experiments
TAPS 1500L Acting Together on the World Stage: Writing and Political Performance
TAPS 0250 Introduction to Technical Theatre and Production
TAPS 1230 Performance Theory and World Theatre History: Paleolithic to Medieval
TAPS 1250 Twentieth-Century Western Theatre and Performance

One performance-based class. Options include Acting, Directing, Speech, Dance, Visual Arts, Music, or Sign Language. Select two additional Theatre/Performance History/Theory classes to be culled from those listed below, as well as other courses in the Department of Theatre Arts and Performance Studies or throughout the university in consultation with advisor:

TAPS 1240 Performance Historiography and Theatre History
TAPS 1270 Masking, Trancing, Performing, and Spectating in Non-Western and Circumpacific Performance
TAPS 1330 Dance History: The 20th Century
TAPS 1280N New Theories for a Baroque Stage
TAPS 1380 Mise en Scene
TAPS 1390 Contemporary Mande Performance
TAPS 1400 Advanced Performance
TAPS 1420 Global Queer Performance
TAPS 1430 Russian Theatre and Drama
TAPS 1610 Political Theatre of the Americas
TAPS 1630 Performativity and the Body: Staging Gender, Staging Race
TAPS 1640 Theatre and Conquest in Greater Mexico: From Cortes to NAFTA
TAPS 1650 21st Century American Drama
TAPS 1670 Latino/a Theatre and Performance
TAPS 1690 Performance, Art, and Everyday Life
AFRI 0990 Black Lavender: Black Gay/Lesbian Plays/Dramatic Constructions in the American Theatre
AFRI 1110 Voices Beneath the Veil
AFRI 1120 African American Folk Traditions and Cultural Expression
TAPS 2120 Revolution as a Work of Art
TAPS 2200A Abstraction and Resistance

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
For all concentrators, regardless of track:
In cases where dual concentrations are declared, the Department allows two courses to be counted toward both concentrations.

Capstone
The Capstone is a culminating project/experience designed by the student that fulfills the concentration track. TAPS capstones can take a variety of forms, such as a solo performance or dance piece, the writing of a play, an honor's thesis or a design project, or directing a production. Students begin working on their capstone in the required senior seminar course, which is offered in the fall term. Capstone projects may be completed in either the fall with the termination of the Seminar, or in the subsequent spring term.

Honors
The standard pattern above, plus an honors thesis course taken in Semester VII (TAPS 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 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.

For a concentration, the program requires ten courses selected from four course groups:

Introduction (choose one):
- POLS 0220 City Politics
- URBN 0210 The City: An Introduction to Urban Studies
- URBN 0230 Urban Life in Providence: An Introduction

Research Skills (choose one):
- APMA 0650 Essential Statistics
- APMA 1650 Statistical Inference I

Seminar courses (choose three) 3
- AMST 1903E City of the American Century: The Culture and Politics of Urbanism in Postwar New York City
- ECON 1420 Urbanization in China
- EDUC 1650 Policy Implementation in Education
- ENGL 1760F City, Culture, and Literature in the Early Twentieth Century
- ENGL 1760K Reading New York
- ETHN 1870/1974T Ethnic Los Angeles
- HIAA 1910A Providence Architecture
- HIST 1974F The Urban Crisis and American Political Culture, 1932-1984
- HIST 1974E The Urban Crisis and American Political Culture, 1932-1984
- ETHN 1870A Ethnic Los Angeles
- POLS 2220 Urban Politics
- PPAI 1700J GIS and Public Policy
- SOC 1871W Geographical Analysis of Society
- SOC 2960C Urban Sociology

Core Courses (choose three) 3
- AMST 1612D Cities of Sound: Place and History in American Pop Music
- ANTH 1236 Urban Life: Anthropology in and of the City
- ANTH 1255 Anthropology of Disasters
- ECON 1410 Urban Economics
- ECON 1590 The Economy of China since 1949
- ENGL 0710A City Novels
- ENVS 1400 Sustainable Design in the Built Environment
- GEOG 1320 Introduction to Geographic Information Systems for Environmental Applications
- HIAA 0100 Introduction to Architectural Design Studio
- HIAA 0700 Nineteenth-Century Architecture
- HIAA 0840 History of Rhode Island Architecture
- HIAA 0850 Modern Architecture
- HIAA 0860 Contemporary Architecture
- HIAA 0900 City and Cinema
- HIAA 1850D Film Architecture
- HIST 1820 American Urban History to 1870
- HIST 1830 American Urban History, 1870-1950
- POLS 0220 City Politics
- SOC 1330 Remaking the City
- SOC 1340 Principles and Methods of Geographic Information Systems
- SOC 1640 Social Exclusion
- URBN 1200 The United States Metropolis, 1945-2000
- URBN 1210 Regional Planning
- URBN 1220 Planning Sustainable Cities
- URBN 1230 Crime and the City
- URBN 1570 Guts of the City: Interdisciplinary Perspectives on Urban Infrastructure and Environmental Planning

For complete, up-to-date course information please see the Banner Schedule or Brown Course Search (http://selfservice.brown.edu/menu).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>URBN 1000</td>
<td>Fieldwork in the Urban Community</td>
</tr>
<tr>
<td>URBN 1010</td>
<td>Fieldwork in Urban Archaeology and Historical Preservation</td>
</tr>
<tr>
<td>URBN 1420</td>
<td>Urbanization in China</td>
</tr>
<tr>
<td>URBN 1870A</td>
<td>American Culture and the City</td>
</tr>
<tr>
<td>URBN 1870C</td>
<td>The Environment Built: Urban Environmental History and Urban Environmentalism for the 21st Century</td>
</tr>
<tr>
<td>URBN 1870D</td>
<td>Downtown Development</td>
</tr>
<tr>
<td>URBN 1870E</td>
<td>Green Cities: Parks and Designed Landscapes in Urban America</td>
</tr>
<tr>
<td>URBN 1870F</td>
<td>Housing and Homelessness</td>
</tr>
<tr>
<td>URBN 1870H</td>
<td>Rivers and Cities</td>
</tr>
<tr>
<td>URBN 1870I</td>
<td>The Changing American City</td>
</tr>
<tr>
<td>URBN 1870J</td>
<td>The Politics of Community Organizing</td>
</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 1870P</td>
<td>Representing the Twentieth-Century City</td>
</tr>
<tr>
<td>URBN 1870Q</td>
<td>Cities in Mind: Modern Thought and Theory</td>
</tr>
<tr>
<td>URBN 1900</td>
<td>Land Use Planning: The Future of the I-195 Parcels</td>
</tr>
</tbody>
</table>

**Complementary Curriculum (choose two from the following options):**

1. Any course from the Introductory or Basic Curriculum options above not used to fulfill another requirement
2. Any of the following:
   - AFRI 0600 Race, Gender, and Urban Politics
   - AFRI 0620 African-American Life in the City
   - AMST 0150B Boston: A City Through Time
   - AMST 0190D Popular Music and the City
   - AMST 1811A Making America: Twentieth-Century U.S. Immigrant/Ethnic Literature
   - AMST 1903G Oral History and Community Memory
   - AMST 1904M Charles Chaplin and the Urban Public Health Movement
   - ANTH 0450 Two Billion Cars: Humans, Markets, Cultures, and the Automobile
   - ARCH 0400 City and Sanctuary in the Ancient World
   - ARCH 1150 Cities and Urban Space in the Ancient World
   - ARCH 1200F City and the Festival: Cult Practices and Architectural Production in the Ancient Near East
   - ARCH 1600 Archaeologies of the Near East
   - ARCH 1720 How Houses Build People
   - ARCH 1900 The Archaeology of College Hill
   - CITT 1811A Tales of Two Cities: Havana - Miami, San Juan - New York
   - EDUC 1150 Education, the Economy and School Reform
   - EDUC 1720 Urban Schools in Historical Perspective
   - ENGL 1710I Harlem Renaissance: The Politics of Culture
   - ENGN 1930S Land Use and Built Environment: An Entrepreneurial View
   - ENVS 0520 Wild Literature in the Urban Landscape
   - ENVS 1410 Environmental Law and Policy
   - ENVS 1555 Urban Agriculture: The Importance of Localized Food Systems
   - ENVS 1920 Analysis and Resolution of Environmental Problems/Case Studies
   - ENVS 1929 The Fate of the Coast: Land Use and Public Policy in an Era of Rising Seas
   - ETHN 1890A Seminar on Latino Politics in the United States
   - GRMN 1660B Berlin: A City Strives to Reinvent Itself
   - HIAA 0550 Gold, Wool and Stone: Painters and Bankers in Renaissance Tuscany
   - HIAA 0560 Constructing the Eternal City: Popes and Pilgrims in Renaissance Rome
   - HIAA 1200D Pompeii
   - HIAA 1560C Renaissance Venice and the Veneto
   - HIAA 1750B Images and the Making of London in the Nineteenth Century
   - HIAA 1850C The City of Paris: Urbanism and Architecture from the Tenth through the Twentieth Centuries
   - HIAA 1850F The Architecture and Urbanism of Modern Istanbul
   - HIAA 1910D Water and Architecture
   - HIST 1311 Land Use and Capitalism, 1350-2013
   - HIST 1540 Samurai and Merchants, Prostitutes and Priests: Japanese Urban Culture in the Early Modern Period
   - HIST 1670 History of Brazil
   - HIST 1720V Modernity, Jews, and Urban Identity in Central Europe, 1867-1938
   - HIST 1730 Cities and Urban Culture in China
   - HIST 1730P City as Modernity: Popular Culture, Mass Consumption, Urban Entertainment in Nineteenth-Century Paris
   - HIST 1780A Drifting Cities. Multiethnic Societies from Empire to Nation-State
   - HIST 1780K The Mediterranean City: Conflict and Coexistence in the Long Twentieth Century
   - HIST 1790D Fin-de-Siècle Paris and Vienna
   - HMAM 181B Paris Archive: The Capital of the Nineteenth Century, 1848-1871
   - JAPN 0910B Japanese Cities: Tokyo and Kyoto
   - POLS 1310 African American Politics
   - POLS 1760 Infrastructure Policy
   - PPAI 1200Q Urban Policy Challenges
   - PPAI 1700Q Urban Policy Analysis and Program Evaluation
   - RISD 1300 Urban Policy Challenges
   - SOC 0130 American Heritage: Democracy, Inequality, and Public Policy
   - SOC 1970O Race, Class, and Ethnicity in the Modern World
   - SOC 1540 Human Needs and Social Services

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. In fall semester, honors thesis students shall enroll in an independent reading and research course with their adviser (URBN 1970 in their adviser’s section) or take an additional research skills course, and in the Spring, they shall take the Honors Thesis Workshop (URBN 1981). The candidate’s final thesis must be of outstanding quality, in order to qualify for honors.

Visual Art

The Visual Arts concentration engages in artistic practice across a wide range of media: painting, sculpture, printmaking, drawing, photography, and digital imaging. Courses in art history combine with these to frame the direction of the concentrator’s work and to develop his or her critical thinking skills. Students are encouraged to cultivate an informed and thoughtful individual perspective. Students in the Visual Arts department enjoy cutting-edge facilities and a knowledgeable faculty. These two resources inspire creativity and pleasure in our concentrators while they explore the discipline. Students acquire the intellectual and practical tools to make art as well as to interpret and critique the world of images. Students also have the opportunity to take courses at the neighboring Rhode Island School of Design.

Concentration Program Requirements

**Concentration Requirements:****

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISA 0100 Studio Foundation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or VISA 0110 Advanced Studio Foundation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VISA 1110 Drawing I</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or VISA 1120 Drawing II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VISA 0120 Foundation Media: Sound and Image</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIAA 0010 A Global History of Art and Architecture</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIAA 0880 - Contemporary Art I</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or HIAA 0890 - Contemporary Art II</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Five additional studio courses (in addition to VISA 0120 and VISA 0110 or VISA 1120)</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One upper-level History of Art and Architecture course</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One elective course in History of Art and Architecture, Visual Art, Modern Culture and Media</td>
<td>5</td>
<td></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: 12

1. VISA 0100 and VISA 0110 do not count as one of the 7 studio concentration requirements; VISA 0100 or VISA 0110 are prerequisites for all studio courses.
2. Qualifies as one of the 5 studio concentration requirements.
3. Should be taken by the first semester of junior year.
4. A minimum of four studio courses must be taken at Brown University. One must be drawing.
5. Certain related courses or acceptable RISD courses may also be approved.

**Honors**

The project is a two-semester enterprise and counts as two courses taken for graduation credit VISA 1800C (Sem I) and VISA 1990 (Sem II) but will not count as two of the twelve courses needed for the visual art concentration. Students that are planning to complete their degree requirements in December must apply for honors by December 5 of the previous year.